

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

BIOCHEMISTRY

CODE: 15BI/PC/BC14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the basic concepts of the structure of biomolecules
- To understand the importance of structural studies in bioinformatics
- To comprehend the basics of metabolism and enzyme kinetics

Unit 1

Introduction

(10 hrs.)

- 1.1 Basics of Structural Biology. Distinctive Properties of Living Systems
- 1.2 Biomolecules - Definition and Structural Organisation of Complex Biomolecules
- 1.3 Water – Properties and its Importance in Biosystems

Unit 2

Central Metabolic Biochemistry

(15 hrs.)

- 2.1 Carbohydrate Metabolism – Glycolysis, Glycogen Metabolism, TCA Cycle, HMP Shunt
- 2.2 Protein Metabolism – Oxidative Deamination, Transamination and Urea Cycle
- 2.3 Fatty Acid Metabolism- B- Oxidation and Biosynthesis of Fatty Acids, Xenobiotics and General Detoxification Methods in the Body

Unit 3

Protein Structure

(20 hrs.)

- 3.1 Amino acid properties, four levels of protein structure. Physical interactions physical and chemical properties
- 3.2 Conformational properties of polypeptide chains – Three-Dimensional Conformations, Local Restrictions on flexibility, The Ramachandran Plot, Regular Conformations of Polypeptides- α -Helix, β -Sheet, other Regular Conformations. Folding pathways. Domains, Motifs and their importance
- 3.3 Basic structure of Carbohydrates, Lipids, Nucleic acids

Unit 4

Enzymes

(10 hrs.)

- 4.1 Enzyme Action Mechanisms
- 4.2 Enzyme Kinetics – Introduction, Basic Enzyme Kinetics, Michaelis - Menten Equation, significance of V_{max} and K_m , Line Weaver-Burk Plot
- 4.3 Competitive and Non-Competitive Inhibition, Feedback inhibition. Enzyme Regulation. Allosteric Modulation

Unit 5

Bioenergetics

(10 hrs.)

- 5.1 Review of Chemical Equilibria and Keq. Relationship Between Equilibria and Free Energy
- 5.2 Relationship between Free Energy, Heat, And Entropy. ATP as the "Energy Currency" of the Cell Oxidizing And Reducing Agents in Cells, and how they are "Recycled"
- 5.3 The Respiratory Chain, Oxidative Phosphorylation, Chemi-Osmotic Theory. Signal Transduction and Relay of Signals

TEXT BOOKS

Albert, L. Lehninger *et al*, Biochemistry, Worth Publishing, UK. 2012.

Thomas. E. Creighton, Proteins, W. H. Freeman, New York.2012.

BOOKS FOR REFERENCE

Champe, Pamela C, Richard A. Harvey and Denise R. Ferrier. *Lippincott's Illustrated Reviews: Biochemistry*, India: J.P. Brothers Medical, 2013.

Garrett, H. Reginald and Grisham, M. Charles. *Biochemistry*. USA: Thomson – Brooks/Cole, 2012.

Jeremy, M. Berg. *Biochemistry*, New York: W.H. Freeman, 2010.

Lubert and Stryer. *Biochemistry*, New York: W.H. Freeman, 2012.

Segal, I. H. *Enzyme Kinetics*, New York: John Wiley, 1993.

Voet, D. and Voet, G. *Biochemistry*, New York: John Wiley, 2012.

JOURNALS

Journal of Biochemistry
Indian Journal of Clinical Biochemistry
Biochemistry

WEB RESOURCES

www.themedicalbiochemistrypage.org

www.biochemistry.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Open book test

Case study

Clinical implications of metabolic pathways

Diagnostic applications of biochemicals

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

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M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

DATABASE MANAGEMENT SYSTEMS

CODE : 15BI/PC/DB14

CREDITS : 4

L T P : 312

TOTAL TEACHING HOURS : 78

OBJECTIVES OF THE COURSE

- To introduce the basic concepts of Relational Database Management System and Client Server Environment
- To train the students in Designing databases and manipulating them for Biological applications through Oracle

Unit 1

Introduction to Database Systems and Linux (10 hrs.)

- 1.1 Introduction to File and Database systems- Database System Structure, Data Models. Introduction to Network Models – ER Model. Relational Model
- 1.2 Introduction to Linux Operating System, Properties of Linux, Desktop Environment, Linux Basics Commands
- 1.3 Working With Files, Text Editors, I/O Redirections, Pipes, Filters, and Wildcards. Changing Access Rights

Unit 2

SQL Definition and Normalization (12 hrs.)

- 2.1 SQL – Data Definition- Queries in SQL- Updates- Views – Integrity and Security
- 2.2 Relational Database design – Functional Dependences and Normalization for Relational Databases (up to BCNF)
- 2.3 Query Forms

Unit 3

Files and RDBMS (16 hrs.)

- 3.1 Record Storage And Primary File Organization- Secondary Storage Devices- Operations on Files- Heap File- Sorted Files- Hashing Techniques – Index Structure For Files –Different Types Of Indexes- B-Tree - B+Tree – Query Processing
- 3.2 Multimedia Databases - Basic Concepts and Applications. Indexing and Hashing. Text Databases
- 3.3 Overview of RDBMs, Advantages of RDBMs over DBMs. Data Mining

Unit 4

Data Definition and Manipulation Language (15 hrs.)

- 4.1 Data Definition Language, Data Manipulation Language, Transaction Control & Data Control Language Grant & Revoke Privilege Command
- 4.2 Set Operators, Joins-Kinds of Joins, Table Aliases, Sub queries, Multiple & Correlated Sub Queries
- 4.3 Functions-Single Row, Date, Character, Numeric, Conversion, Group Functions

Unit 5

Constraints and MySQL (12 hrs.)

- 5.1 Constraints-Domain, Equity, Referential Integrity Constraints
- 5.2 Locks -Types of Locks, Table Partitions, Synonym
- 5.3 Introduction to PL/SQL, Introduction, MySQL as an RDBMS Tool, Data types and Commands

TEXT BOOKS

Ramakrishnan Raghu and Gehrke Johannes. *Database Management Systems*, USA: McGraw–Hill, 2003.

BOOKS FOR REFERENCE

George Koch and Kevin Loney. *Oracle 8 - The Complete Reference*, USA: Tata McGraw – Hill, 2000.

Kyte, Thomas. *Expert Oracle Database Architecture- 9i and 10g Programming Techniques and Solutions*. USA: Berkeley press, 2006.

Michael Abbey and Michael J. Correy. *Oracle 8i - A Beginners Guide*. USA :McGraw-Hill, 1999.

JOURNALS

International Journal of Database Management Systems

Journal of Database Management

Journal of Advanced Database Management & Systems

International Journal of Intelligent Information and Database Systems

International Journal of Computer Science and Information

WEB RESOURCES

www.oracle.com/technetwork/oem/db-mgmt/db-mgmt-093445.html

<http://education-portal.com/academy/lesson/what-is-a-database-management-system-purpose-and-function.html>

www.odbms.org/

http://www.comptechdoc.org/os/linux/usersguide/linux_ugbasics.html

<http://www.dummies.com/how-to/content/common-linux-commands.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory:

Section A – $15 \times 1 = 15$ Marks (All questions to be answered)

Section B – $5 \times 2 = 10$ Marks (2 out of 4 to be answered)

Practical:

Section C – $2 \times 12.5 = 25$ Marks

Third Component:

List of Evaluation modes

Seminars

Group discussion

Assignments

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Theory:

Section A – $30 \times 1 = 30$ Marks (All questions to be answered)

Section B – $10 \times 2 = 20$ Marks (2 out of 4 to be answered)

Practical:

Section C – $2 \times 25 = 50$ Marks (2 out of 3 to be answered)

Question comprising the following

Display the output for the given query

Error finding

Output of the given programme

Find the missing statements in a given programme

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SYLLABUS

(Effective from the academic year 2015 -2016)

PROGRAMMING IN C++

CODE: 15BI/PC/CP14

CREDITS : 4

L T P : 312

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To familiarize students with the programming language
- To gain knowledge of C++ programming language
- To enable the application of C++ program in real time programs

Unit 1

Introduction to Programming language (10 hrs.)

- 1.1 Introduction to Programming, Choice of Language: Machine/Assembly Language
- 1.2 Higher Level Languages, Data: Simple, Compound, Code: Syntax and Semantics
- 1.3 Introduction to Programming in C++: C++ Characteristics, Object-Oriented Terminology, Object-Oriented Paradigm, Abstract Data Types

Unit 2

Functions and variables (12 hrs.)

- 2.1 Tokens, Expressions and Control Structures: Tokens, Keywords, Identifiers and Constants, Basic Data Types, User Defined Data Types, Derived Data Types
- 2.2 Functions and Variables: Functions: Declaration and Definition
- 2.3 Variables: Definition, Declaration, and Scope, Dynamic Creation and Derived Data, Arrays and Strings in C++

Unit 3

Overview of classes (15 hrs.)

- 3.1 Classes in C++: Defining Classes in C++, Classes and Encapsulation, Member Functions
- 3.2 Instantiating and Using Classes, Using Constructors, Destructors, Friend Function. Inheritance
- 3.3 Overview of Inheritance, Constructor and Destructor Calls
Polymorphism: Overview of Polymorphism

Unit 4
String manipulation (15 hrs.)

- 4.1 Input and Output in C++ Programs: Standard Streams, Manipulators, Unformatted Input and Output, File Input and Output, Formatted Console I/O Operations
- 4.2 Exceptions: Exceptions, Inheritance and Exceptions, Exception Hierarchies
- 4.3 Operator Overloading String manipulation: Creating String Objects, Manipulating String, Relational Operators. String characteristics, Comparing and Swapping

Unit 5
Introduction to files (13 hrs.)

- 5.1 Working With Files: Opening and Closing a File, Classes For File Stream Operations
- 5.2 Detecting End Of File, More About Open (): File Mode, Updating File, Error Handling, Command Line Arguments
- 5.3 Pointers: Pointers, Pointers to Objects, Pointers to Derived Classes, Virtual Functions, References

TEXT BOOKS

E. Balagurusamy. *Object Oriented Programming with C++*. New Delhi: Tata McGraw-Hill, 2013.

Hubbard, John. *Programming with C++, Schaum's Outline Series*. New Delhi: Tata McGraw Hill, 2003.

BOOKS FOR REFERENCE:

Bjarne, Stroustrup. *The C++ Programming Language*. India: Addison Wesley, 2013.

Brain, W. Kernighan and Dennis. M. Ritchie. *The C Programming Language*. USA: Prentice Hall, 1988.

Sanjeev Sofat. *Object Oriented Programming Using C++*, India : Cyber Tech. Publication, 2009.

JOURNALS

C/C++ Users Journal
International Journal of Computer Applications
Computer Methods and Programs in Biomedicine
Science of Computer Programming

WEB RESOURCES

<http://www.cplusplus.com/doc/tutorial/>

<http://www.cprogramming.com/>

<http://www.stroustrup.com/4th.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory:

Section A – $15 \times 1 = 15$ Marks (All questions to be answered)

Section B – $5 \times 2 = 10$ Marks (2 out of 4 to be answered)

Practical:

Section C – $2 \times 12.5 = 25$ Marks

Third Component:

List of Evaluation modes

Seminars

Assignments

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Theory:

Section A – $30 \times 1 = 30$ Marks (All questions to be answered)

Section B – $10 \times 2 = 20$ Marks (2 out of 4 to be answered)

Practical:

Section C – $2 \times 25 = 50$ Marks

Questions comprising the following

Error finding,

Output of the given programme

Write a C++ program such as

a) Palindrome, multiplication

b) To find the area, circumference of a circle

c) Average of three marks

d) Armstrong no, Leap year

e) Find the sum of the digits of the number

f) Using functions

g) Using classes, constructor and destructor

Find the missing statements in a given programme

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SYLLABUS
(Effective from the academic year 2015-2016)
BIOPHYSICS

CODE:15BI/PC/BP14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE:

- To provide a basic understanding about the forces that determine the structure of biological macromolecules
- To provide knowledge about the techniques used in studying biological structure and functions
- To understand the behavior and properties of biological macromolecules

Unit 1

Introduction (15 hrs.)

- 1.1 Atoms, Molecules and Chemical Bonds
- 1.2 Bohr Model of the Atom – Atomic Spectra. De Broglie Theory of Matter Waves – Schrödinger Wave Equation – Interpretation of Wave Function – Atomic Orbital, Molecular Orbital – Hybrid Orbital – Valency
- 1.3 Thermodynamics Systems – Laws of Thermodynamics – Statement and Applications – Concepts of Entropy and Enthalpy

Unit 2

Spectroscopy (10 hrs.)

- 2.1 Visible, UV And IR Spectroscopy
- 2.2 Raman Spectroscopy – ‘Fingerprinting’ Using Raman Spectra – Complementarity of Raman and IR Spectroscopy
- 2.3 Fluorescence Spectroscopy – Principles and Applications only for all

Unit 3

Nuclear Magnetic Resonance (10 hrs.)

- 3.1 The Phenomenon, Spin-Spin Interaction
- 3.2 Relaxation and Nuclear Overhauser Effect, Chemical Shift, Measuring the Spectrum, One Dimensional NMR, Two Dimensional
- 3.3 NMR Application to Macromolecules

Unit 4

Mass Spectrometry (15 hrs.)

- 4.1 Mass Spectrometry for Protein and Peptide Analysis
- 4.2 MALDI-TOF Analyzer, Tandem Mass Analyzer, The Ion Trap Mass Analyzer, Q-TOF Instrument

- 4.3 Protein identification by Peptide Mass Fingerprinting, Peptide Sequence Analysis by TMS and Protein Identification by TMS Data

Unit 5

Crystallography and Microscopy (15 hrs.)

- 5.1 Elementary Description of Crystallography – Crystal Growth, Data Collection, Structure Solution, Refinement and Interpretation – Concept of Resolution
5.2 AFM: Atomic Force Microscopy Basic Principle and Application
5.3 CFM: Chemical Force Microscopy Basic Principles and Applications

TEXT BOOKS:

Igor, Serdyuk, Nathan R. Zaccai and Joseph Zaccai. *Methods in Molecular Physics*. UK: Cambridge University Press, 2007.

Kensal E. VanHolde, Johnson Curtis W. and Ho Shing P. *Principles of Physical Biochemistry*, USA: Prentice Hall International Inc., 2005.

Narayanan P. *Introductory Biophysics* Mumbai, India: New Age Publishing Co., 2005

BOOKS FOR REFERENCE:

Bengt Nolting. *Methods in Modern Biophysics*. Germany: Springer, 2004.

Banwell C.N. *Fundamentals of Molecular Spectroscopy*. New Delhi: Tata McGraw-Hill Publishing Company Lt, 1994.

C.R.Cantor and P.Schimmel. *Biophysical Chemistry*. New York, USA: W.H. Freeman and Company, 1985.

D.Freifelder. *Physical Biochemistry*. New York, USA: W. H. Freeman and Company, 1982.

P. Gunning , A. R. Kirby, V. J. Morris. *Atomic Force Microscopy*. London: Imperial College Press, 2009.

Leach A.R, *Molecular Dynamics Simulation*. New York, USA: John Wiley and Sons, 2001.

Sears F. W, Zemansky M.W and Young H.D. *College Physics*, Massachusetts, USA: Addison Wesley Publishing Company, 1985.

D.Sherwood. *Crystals, X-rays and Proteins*. London, UK: Longman Group Lts, 1976.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

MOLECULAR BIOLOGY

CODE: 15BI/PC/MB24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand the structure and function of the genetic material
- To enable the understanding of the process and regulation of cell division
- To analyse the involvement of molecules in life processes

Unit 1

Gene Organisation (15 hrs.)

- 1.1 DNA Structure and Organisation of the Genome and Genetic Rearrangements
- 1.2 Organisation of Eukaryotic Genomes - Coding Sequences. Repetitive Sequences in Eukaryotic Genomes, Replication in Prokaryotes
- 1.3 Genetic Rearrangements – Transposable Elements

Unit 2

Transcription (15 hrs.)

- 2.1 Transcription: Eukaryotes and Prokaryotes
- 2.2 Regulation: Transcriptional Control: By Regulatory Proteins, Steroid Hormone Receptors - Heat Shock Genes- Homeotic Genes
- 2.3 Mechanisms Modifying Transcriptional Control By Regulatory Proteins – DNA Methylation And Genetic Control, Histone Modification, Post Transcriptional Regulation

Unit 3

Translation (12 hrs.)

- 3.1 Translational Regulation. Post translational Regulation; Regulation in Prokaryotes
- 3.2 Specialised Mechanisms Regulating rRNA Genes
- 3.3 Genetic Control of Vertebrate Immune System

Unit 4

Organelle Genome (10 hrs.)

- 4.1 Mitochondrion Genome – Organisation and Function
- 4.2 Transcription and Translation in Mitochondria
- 4.3 Chloroplast Genome – Organisation and Function

Unit 5

Cell Cycle

(13 hrs.)

5.1 Cell Cycle, Cell Cycle Regulation

5.2 Mitosis and Meiosis

5.3 Cancer: Characteristics, Genetic Basis, Initiation and Progression

TEXT BOOKS

Harvey Lodish, Arnold Berk, Chris A. Kaiser, Monty Krieger, Matthew P. Scott, Anthony Bretscher, Hidde Ploegh and Paul Matsudaira. *Molecular Cell Biology*. USA: W.H. Freeman, 2008.

Wolfe, Stephen L. *Molecular and Cellular Biology*. USA: Wadsworth, 2005.

BOOKS FOR REFERENCE

Cooper, Geoffrey M. and Robert E. Hausman. *The Cell, A Molecular Approach*. USA: Sinauer Associates, 2004.

Darnell, James, Harvey Lodish and David Baltimore. *Molecular and Cell Biology*, Scientific American Books, USA: W.H. Freeman, 2004.

Karp and Gerald. *Cell and Molecular Biology - Concepts and Experiments*, USA: John Wiley, 1996.

Journals

Journal of Molecular Biology
Molecular Biology

Web Resources

www.cellbio.com

www.molbiolcell.org

www.sciencedirect.com

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:
List of Evaluation modes

Assignment
Test
Seminars

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

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M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)
MOLECULAR BIOLOGY PRACTICAL

CODE: 15BI/PC/P122

CREDITS : 2

L T P : 0 0 3

TOTAL HOURS : 39

OBJECTIVE OF THE COURSE:

- To provide practical experience of the various techniques involved in Molecular Biology and Biochemistry

Unit 1 (8 hrs.)

- 1.1 Cell Fraction and Extraction of cell organelles
- 1.2 Isolation of Sub-Cellular Organelles and Particles –Mitochondria and Chloroplast

Unit 2 (10 hrs.)

- 2.1 Extraction of DNA from Onion, Extraction of RNA from Yeast
- 2.2 Estimation of DNA and RNA
- 2.3 Estimation of Proteins by Lowry's Method

Unit 3 (7 hrs.)

- 3.1 Estimation of Mitochondria by Assessing The Marker Enzyme
- 3.2 Denaturing Proteins and Identification of Amino Acids by Thin Layer Chromatography.

Unit 4 (7 hrs.)

- 4.1 Isolation of Plasmid DNA (Demo)
- 4.2 Amplification of DNA by PCR

Unit 5 (7 hrs.)

- 5.1 Electrophoretic Techniques: Agarose Gel Electrophoresis, SDS PAGE (Demo)
- 5.2 Southern Blotting (Demo)

BOOKS FOR REFERENCE:

Sambrook, J; Russel, DW. *Molecular Cloning*. USA: Cold Spring Harbor Laboratory Press, 2001.

Sadasivam, S. and Manickam, A. *Biochemical Methods*. India: New Age International, 2009.

Wilson, K; Walker, J. *Principles and techniques of Biochemistry and Molecular Biology*. USA: Cold Spring Harbor Laboratory Press, 2010.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Spotters 4 in number each carrying 6 marks totaling 24 marks

Any two experiments each carrying 30 marks each—10 marks for procedure, 10 marks for the result and 10 marks for the conduct of the experiment

Viva – 10 marks

Record - 6 marks

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M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 - 2016)

BIOINFORMATICS

CODE : 15BI/PC/BI24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To provide an integrative approach to the understanding of both theory and practice of bioinformatics
- To apply biological concepts at different levels to study gene / protein analysis, and the proteins implicated in diseases

Unit 1

Introduction to Biological Databases (12hrs.)

- 1.1 Type of Databases, Public Biological Databases – NCBI, EBI, CMBI, OMIM. Primary Nucleotide Sequence Databases: EMBL, GenBank, DDBJ
- 1.2 Secondary Nucleotide Sequence Databases: UniGene, SGD. Sequence Submission Methods and Tools (Sequin, Sakura, Bankit)
- 1.3 Sequence Retrieval Systems (Entrez & SRS); Sequence File Formats and Conversion Tools. Finding Scientific Articles, Using Pubmed

Unit 2

Introduction to Sequence Alignment (14 hrs.)

- 2.1 Protein Alignment, Homology, Similarity, Identity, Gaps
- 2.2 Pairwise alignments: Dot Plots, Scoring Matrix-PAM, BLOSUM, Gap Penalty
- 2.3 Dynamics programming - Alignment Algorithms: Global Sequence Alignment: Needleman-Wunsch Algorithm. Local Sequence Alignment: Smith –Waterman Algorithm. Rapid, Heuristic Versions of Smith Waterman: FASTA and BLAST - Statistics of Sequence Alignment Score: E-Value, P-Value

Unit 3

Basic Local Alignment Search Tool (15 hrs.)

- 3.1 BLAST Search Steps, Search Strategy, General concepts
- 3.2 BLAST Algorithm: Local Alignment Search Statistics and E Value. Raw Scores and Bit Scores, Relation between E and P Values. Gapped Alignments in BLAST, Evaluation of Results
- 3.3 Advanced BLAST Searching-Specialised BLAST sites: - Organism Specific BLAST Sites, Ensemble BLAST, TIGR BLAST, PSI-BLAST

Unit 4
Multiple Sequence Alignment (12 hrs.)

- 4.1 Definition of Multiple Sequence Alignment
- 4.2 Databases of Multiple Sequence Alignment Programs- BLOCKS, PRINTS
- 4.3 Integrated Multiple Sequence Alignment Resources: InterPro, iProClass

Unit 5
Evolutionary Analysis (12 hrs.)

- 5.1 Introduction to Evolutionary Analysis, Bootstrap, Tree Construction Methods
- 5.2 Neighbor-Joining Method, Unweighted Pair Group Method with Arithmetic Mean (UPGMA)
- 5.3 Maximum Parsimony Method and Maximum-Likelihood Method

TEXT BOOKS

Baxevanis, Andreas, D. and Francis B.F. Ouellette, *Bioinformatics-A Practical Guide to the Analysis of Genes and Proteins*. New York: John Wiley, 2004.

David W. Mount. *Bioinformatics Sequence and Genome Analysis*. New Delhi: CBS Publishers, 2003.

Pevsner, Jonathan. *Bioinformatics and Functional, Genomics*. USA: John Wiley, 2009.

BOOKS FOR REFERENCE:

Baldi, P. and Brunak, S. *Bioinformatics: Machine Learning Approach*. USA: MIT Press, 2003.

Chen and Yi-Ping Phoebe. *Bioinformatics Technologies*. Germany: Springer, 2005.

Durbin, R., S. Eddy, A. Krogh and G. Mitchison. *Biological Sequence Analysis: Probabilistic Models of Proteins and Nucleic Acids*. USA: Cambridge University Press, 2005.

Higgins, Des and Willie Taylor. *Bioinformatics –Sequence, Structure and Databanks – Practical Approach*. London: Oxford University Press, 2001.

Lesk, Arthur M. *Introduction to Bioinformatics*. UK: Oxford University Press, 2014.

JOURNALS

BMC Bioinformatics
Bioinformatics
Journal of Bioinformatics and Computational Biology
Journal of Biomedical Informatics
Journal of Integrative Bioinformatics

WEB RESOURCES

<http://bioinformaticsweb.net/tools.html>

<https://www.bits.vib.be/index.php/training/122-basic-bioinformatics>

<http://bioinformaticssoftwareandtools.co.in/>

<http://www.genscript.com/tools.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

- a) Section A – 10 x 1 = 10 Marks (All questions to be answered)
- b) Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)
- c) Section C – 1x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Open book test

Seminars

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

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M.Sc. DEGREE BIOINFORMATICS
SYLLABUS

(Effective from the academic year 2015 -2016)

BIOINFORMATICS PRACTICAL

CODE: 15BI/PC/P222

CREDITS : 2
L T P : 0 0 3
TOTAL HOURS : 39

OBJECTIVE OF THE COURSE

- To provide practical experience of the various databases and tools involved in Bioinformatics

Unit 1 **(8 hrs.)**

Nucleotide Databases

- 1.1 Primary Nucleotide Sequence Databases: NCBI, EMBL, GenBank, DDBJ
- 1.2 Database of Essential Genes

Unit 2 **(8 hrs.)**

BLAST

- 2.1 Basic Local Alignment Search Tool (BLAST)

Unit 3 **(8 hrs.)**

Protein Sequence Databases

- 3.1 Protein Sequence Databases – PIR, PRF/SEQDB, RefSeq, Swiss-Prot, TrEMBL
- 3.1 Protein Structure Databases – PDB, CSD, NDB
- 3.2 Protein Structural Classification Databases – CATH, SCOP

Unit 4 **(7 hrs.)**

Visualization Tools

- 4.1 Protein Family Databases –Pfam, ProDom, TIGRFAM
- 4.2 Protein Visualization Tools- Cn3D, Jmol, Rasmol, Weblab Swiss PDB Viewer
- 4.3 Specialized Database (IMG, Rebase, COG, LIGAND, BRENDA)

Unit 5 **(8 hrs.)**

Multiple Sequence Alignment and Evolutionary Tool

- 5.1 Multiple Sequence Alignment Tools: Clustal W and Clustal X.
- 5.2 Phylogenetic Tree Construction Tool: MEGA

TEXT BOOKS

Baxevanis, Andreas, D. and Francis B.F. Ouellette. *Bioinformatics- A Practical Guide to the Analysis of Genes and Proteins*. New York: John Wiley, 2004.

David W.Mount. *Bioinformatics Sequence and Genome Analysis*. New Delhi: CBS Publishers, 2003.

Lesk, Arthur M., *Introduction to Bioinformatics*. UK: Oxford University Press, 2014.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Five out of six questions to be answered (5 X 20=100)

Interpretation of results

Viva – voce would be part of the practical.

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M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

SOFT SKILLS

CODE:15BI/PK/SS22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self development
- To instill confidence and face challenges.

Unit 1

Behavioural Traits (6 hrs.)

- 1.1 Self Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and Mannerisms
- 1.5 Experiential Learning – Based on Activities

Unit 2

Team Work (5 hrs.)

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on Activities

Unit 3

Time Management (5 hrs.)

- 3.1 Importance of Time Management
- 3.2 Planning and Prioritizing
- 3.3 Organizing skills
- 3.4 Action Plan
- 3.5 Experiential Learning – Based on Activities

Unit 4

Conflict Resolution

(5 hrs.)

- 4.1 Reasons for Conflict
- 4.2 Consequences of Conflict
- 4.3 Managing Emotions
- 4.4 Methods of Resolving Conflicts
- 4.5 Experiential Learning – Based on Activities

Unit 5

Career Mapping

(5 hrs.)

- 5.1 Goal Setting
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on Activities

BOOKS FOR REFERENCE

Khera, Shiv. *You Can Win*. India: Macmillan India Ltd, 2002.

Mishra, Rajiv K. *Personality Development: Transform Yourself*. India: Rupa and Co, 2004.

Newstrom, John W. and Scannell, Edward E. *Games Trainers Play: Experiential Learning*. India: Tata McGraw Hill, 1980.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

GENOMICS AND PROTEOMICS

CODE: 15BI/PC/GP34

CREDITS : 4

L T P : 3 1 2

TOTAL CONTACT HOURS: 78

OBJECTIVES OF THE COURSE

- To provide an insight into the complete genome sequences of a few organisms as well as the Human genome through Comparative and Functional genomics
- To develop an understanding of the entire protein complement of a cell through analytical approaches, Data mining and other software tools

Unit 1

Genomics (16 hrs.)

- 1.1 Rates and patterns of Nucleotide substitution, Causes of variation in Substitution rates, Positive Selection
- 1.2 Molecular Clocks, Local Clocks, Understanding a Genome sequence, Locating the genes in a Genome Sequence, Gene location by Sequence Inspection, Experimental Techniques for Gene Location, Determining the Functions of Individual Genes
- 1.3 Computer Analysis of a Gene Function. Assigning Gene Function by Experimental Analysis. Detailed Studies of a Protein Coded by an Unknown Gene

Unit 2

Comparative Genomics (16 hrs.)

- 2.1 Comparative Genomics, Viral Genomes, Variations at the Level of individual Nucleotides, Duplications, Comparisons at the Chromosome Level: Synteny, Genomes of Chimpanzees and Humans, Genome Sequencing Projects
- 2.2 Phylogenetic Analysis: Relationship of Phylogenetic Analysis to Sequence Alignment, Genome Complexity and Phylogenetic Analysis, Maximum Parsimony Method, Distance Methods, Reliability of Phylogenetic Predictions
- 2.3 Gene Prediction Software's – MZEF & HEXON, ORF analysis, ORF finder, Application of Genome Analysis, Human Diseases, Response to Drugs, Genome

Unit 3

Functional Genomics (15 hrs.)

- 3.1 Gene Expression Analysis by Micro Arrays, SAGE, Applications of Microarrays in Medicine
- 3.2 Strategies for Generating ESTs and Full Length Inserts; EST Clustering and Assembly, EST databases (DB-EST, UNIGene); Statistical Analysis of EST Data
- 3.3 The Human Genome Project and Medicine, KEGG and Metabolic Pathways, Pathway Regulatory Networks

Unit 4

Proteomics

(16 hrs.)

- 4.1 Tools of Proteomics - Database, Mass Spectrometry, Software for Matching MS Data with Specific Protein Sequences (De Novo Sequence Interpretation)
- 4.2 Analytical Protein and Peptide Separations - Complex Protein and Peptide Mixtures
Protein Separation before Digestion: 1D and 2D-SDS-PAGE
- 4.3 Preparative IEF, HPLC, Protein Separations after Digestion: Tandem LC
Approaches for Peptide Analysis, Protein Digestion Techniques Screening Methods
- (Yeast Two-Hybrid and other Mammalian Screen Methods) Protein Interaction
Networks and Protein Pathways

Unit 5

Application of Proteomics

(15 hrs.)

- 5.1 Identifying Protein-Protein Interactions and Protein Complexes
- 5.2 Mapping Protein Modifications
- 5.3 Restriction Enzymes and Proteolytic Enzyme Digestion

TEXT BOOKS

Arthur Lesk M. *Introduction to Genomics*. New York: Oxford university press, 2008.

Brown, T. A. *Genomes -3*. USA: John Wiley and Sons inc., 2006.

Daniel C. Leibler. *Introduction to Proteomics: Tools for New Biology*. USA: Humana Press, 2002.

Srivastava Sudhir. *Informatics in Proteomics*. USA: Taylor & Francis Group, 2005.

BOOKS FOR REFERENCE

Brown P. O and Botstein D. *Exploring the new world of the genome with DNA microarrays*. USA: Nat. Genet, 1999.

Collado Vides Julio and Ralf Hofstadter. *Gene Regulation and Metabolism – Post Genomic Computational Approaches*. India: Ane Books, 2004.

Dale, Jeremy W and Malcolm von Schantz. *From Genes to Genomes – Concepts and Applications of DNA Technology*. USA: John Wiley and Sons, 2012.

Griffiths, A.J.F, Miller, J.H, Suzuki, D.T. Lewontin, R. C. and Gelbart, W.M. *An Introduction to Genetic Analysis*. USA: W.H. Freeman, 1996.

Golemis and Erica. *Protein-Protein Interaction*. USA: CSHL, 2005.

End Semester Examination:

Total Marks: 100

Duration: (3 hrs.)

Theory:

Section A – 1 x 20 = 20 Marks (ALL questions to be answered)

Section B – 3 x 10 = 30 Marks (3 out of 5 to be answered)

Practical:

Section C – 50 Marks

The **practical** exam would have the following pattern:

Database search (Literature, Sequence similarity etc.) -	15	marks
Mapping of genomes, finding ORFs, etc. -	15	marks
Gene Prediction, etc. -	15	marks
Viva – voce -	5	marks
Total	50	marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

PERL

CODE : 15BI/PC/PL34

CREDITS : 4

L T P : 3 1 2

TOTAL TEACHING HOURS : 78

OBJECTIVES OF THE COURSE

- To introduce the technique of programming in Perl
- To facilitate the writing of Perl programs that support research in biology
- To learn the usage of CGI and HTML for web page designing

Unit 1

Introduction to Perl Programming (15 hrs.)

- 1.1 Introduction to Perl 5, Variable Types, Data Types, Statements and Declarations, Default Variables
- 1.2 Expressions, Statements, Operators in Perl, Operator Precedence, String Operators, Control Structures
- 1.3 Creating Regular Expressions-Characters, Character Classes, Alternative Match Patterns, Quantifiers, Assertions, Back References, Modifiers And Translator Operations, Matching Words, Extracting Substrings, Perl I/O

Unit 2

Associative Array and Perl Functions (15 hrs.)

- 2.1 Subroutines- Defining Subroutines, Returning Values, Using Arguments.
- 2.2 Associative Arrays (Hashes)
- 2.3 Perl functions –abs, atan2, chr, cos, eval, exists, grep, index, int, join, keys, lc, lcfirst, length, pack, rand

Unit 3

File Handling (16 hrs.)

- 3.1 Working with Filehandle. An Overview of Filehandle, Typical Way of Opening a Perl File Handlers, Opening a Perl File Handle Reference in Normal Scalar Variable
- 3.2 Use Perl IO::File to Open a File Handle, Open the Standard Input and Standard Output, Use Sysopen () to Open the File
- 3.3 Array of Arrays - Hashes, Associative Hashes

Unit 4

File Handling and Bioperl (16 hrs.)

- 4.1 Opening File Handle Reading, Writing and Reading an Array to a Text File, Closing File Handle
- 4.2 Writing and Reading a Hash to a Text File. Packages, Random Number Generation, Signals, Command Line Argument, Standard Modules

4.3 Introduction to Bioperl: Installation Procedures, Architecture, Uses of Bioperl.
Translating DNA into Proteins, Reading DNA From Files in FASTA Format

Unit 5

Common Gateway Interface (16 hrs.)

- 5.1 CGI programming with CGI.pm, Calling CGI program, Perl for CGI, Environmental Variables, Advantages and Drawbacks of CGI, CGI Applications
- 5.2 Creating HTML Controls, Reading Data From HTML Controls, Using Perl Scripts
- 5.3 Starting an HTML Document, Displaying Images, HTML Form, Text Fields, Text Areas, Check Boxes, Scrolling Lists, Radio Buttons, Password Fields, Pop up Menus

TEXT BOOKS

Conrod Bessant, Ian Shadforth and Darren Oakley. *Building Bioinformatics Solutions with Perl, R and MySQL*. New York: Oxford University Press, 2014.

Ellen Siever, Weber, Stephen Figgins, Robert, Arnold Robbins *Linux in a Nutshell-A Desktop Quick Reference*. USA: O'Reilly and Associates, 2006.

Guelich, Scott, Shishir Gundavaram and Gunther Birznieks. *CGI Programming with Perl*. USA: O'Reilly and Associates, 2012.

Holzner and Steven. *Perl Black Book*. India: Dream Tech Press, 2006.

Tisdall James D. *Beginning Perl for Bioinformatics*. USA: O'Reilly and Associates, 2000.

Tisdall James D. *Beginning Perl for Bioinformatics*. USA: O'Reilly and Associates, 2003.

BOOKS FOR REFERENCE

Jacqueline, D. Hamilton, (2004), *CGI Programming 101*, Cgi101.Com Web-learning:
www.CGI101.com

Larry Wall, Tom Christiansen and Jon Orwant. *Programming Perl*. New Delhi: O'Reilly-Shroff Publishers, 2012.

Randall. L. Schwartz and Tom Phoenix. *Learning Perl*. New Delhi: O'Reilly -Shroff Publishers, 2008.

Shishir Gundavaram. *CGI programming on the World Wide Web*. USA: O'Reilly and Associates, 2012.

JOURNALS

The Perl Journal

Computer Science & Perl Programming

Perl Programming for Biologists
Science of Computer Programming
Programming and Computer Software

WEB RESOURCES

<https://www.perl.org/>

<http://www.cs.cf.ac.uk/Dave/PERL/>

<http://www.comp.leeds.ac.uk/Perl/basic.html>

http://www.tutorialspoint.com/perl/perl_introduction.htm

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory:

Section A – 1 x 15 = 15 Marks (ALL questions to be answered)

Section B – 2 x 5 = 10 Marks (2 out of 4 to be answered)

Practical:

Section C – 25 Marks

Third Component:

List of Evaluation modes

Program writing

Quiz

Assignments

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Theory:

Section A – 30 x 1 = 30 Marks (All questions to be answered)

Section B – 10 x 2 = 20 Marks (2 out of 4 to be answered)

Practical:

Section C – 2 x 25 = 50 Marks

Question comprising the following:

Complete a programme,

Write a Perl program related to Bioinformatics (transcription, translation, finding motifs/repeats/restriction enzyme, Open reading frame, reading a PDB file etc.),

Output of the given programme.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)
ALGORITHMS FOR BIOINFORMATICS

CODE: 15BI/PC/AB34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To develop a quantitative understanding of how living things are built
- To raise the awareness of the impact of algorithms on the efficiency of the system
- To develop skills to analyze algorithms related to Bioinformatics

Unit 1

Introduction

(10 hrs.)

- 1.1 Algorithms and Complexity. Definition. Biological Algorithms versus Computer Algorithms-Fast versus Slow Algorithms Big-O Notation
- 1.2 Algorithm Design Techniques Exhaustive Search Branch-and-Bound Algorithms Greedy Algorithms
- 1.3 Dynamic Programming Divide-and-Conquer Algorithms Machine Learning Randomized Algorithms

Unit 2

Restriction Mapping

(10 hrs.)

- 2.1 Impractical Restriction Mapping Algorithms-A Practical Restriction Mapping Algorithm
- 2.2 Regulatory Motifs in DNA Sequences Profiles: The Motif Finding Problem Search Trees
- 2.3 Finding a Median String. String matching algorithm

Unit 3

Sequence Alignment

(15 hrs.)

- 3.1 Longest Common Subsequences - Global Sequence Alignment- Local Sequence Alignment
- 3.2 Graph Algorithms- Graphs and Genetics- DNA Sequencing Shortest Superstring Problem
- 3.3 DNA Arrays as an Alternative Sequencing Technique. Sequencing by Hybridization

Unit 4
Clustering and Evolutionary Trees (15 hrs.)

- 4.1 Gene Expression Analysis. Hierarchical Clustering -k-Means Clustering- Clustering and Corrupted Cliques
- 4.2 Evolutionary Trees - Distance-Based Tree Reconstruction Reconstructing Trees from Additive Matrices- Evolutionary Trees and Hierarchical Clustering Character-Based Tree Reconstruction
- 4.3 Secondary Structure Prediction methods, Artificial Neural Networks

Unit 5
Pattern Matching (15 hrs.)

- 5.1 Combinatorial Pattern Matching. - Identical, Similar and Distant Repeats Finding Methods. Exact Pattern Matching
- 5.2 Keyword Trees and Suffix Trees. Heuristic Similarity Search Algorithms
- 5.3 BLAST: Comparing a Sequence against a Database

TEXT BOOKS

Neil C Jones and Pavel A. Pevzner. *An Introduction to Bioinformatics Algorithms*. USA: MIT press, 2011.

Pavel A. Pevzner. *Computational Molecular Biology- An algorithmic approach*. USA: MIT press, 2004.

BOOKS FOR REFERENCE

Alfred V. Aho, John E. Hopcroft and Jefferey D.Ullman. *Data Structures and Algorithms*. London: Addison Wesley, 1983.

Clark, John and Derek Allan Holton. *A First Look at Graph Theory*. Singapore: Singapore Publishers, 1995.

Horowitz, Ellis, and Sartag Sahni. *Fundamentals of Computer Algorithms*. New Delhi: Galgotia Publications, 1994.

Jeffrey J. McConnell. *Analysis of Algorithm*. New Delhi: Narosa Publishing House, 2002.

Thomas H. Cormen, Charles E. Leiserson and Ronald L. Rivest. *Introduction to Algorithms*. New Delhi: Prentice Hall of India, 1990.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

MOLECULAR MODELING AND COMPUTER AIDED DRUG DESIGNING

CODE: 15BI/PC/MC34

CREDITS : 4

L T P : 3 1 2

TOTAL TEACHING HOURS : 78

OBJECTIVES OF THE COURSE

- To provide a theoretical background to the various methods of molecular modelling
- To introduce the techniques used in molecular modelling
- To illustrate how these techniques can be used to study physical, chemical and Biological phenomena of bio molecules

Unit 1

Introduction

(15 hrs.)

- 1.1 Concepts in Molecular Modelling: Basic Principles – Molecular Representations Coordinate Systems-Potential Energy Surfaces
- 1.2 Features of Molecular Mechanics, force fields– atom-atom pair potentials–Bond Length and Bond Angle and Torsion Angle Potential
- 1.3 Non- bonded interactions-Van der Waals and Electrostatic Potential – Hydrogen Bonding Terms

Unit 2

Energy Minimization and Computer Simulation Methods

(16 hrs.)

- 2.1 Energy Minimisation-Introduction- Derivative and Non-derivative Energy Minimization Methods
- 2.2 Calculation of Simple Thermodynamic Properties, Practical aspects of Computer Simulation, Boundaries, Monitoring The Equilibration, Long-Range Forces
- 2.3 Analyzing the Results of Simulation and Estimating Errors

Unit 3

Molecular Dynamics Simulation, Monte Carlo Simulation Methods (15 hrs.)

- 3.1 Molecular Dynamics Using Simple Model, Molecular Dynamics with Continuous Potentials
- 3.2 Molecular Dynamics at Constant Temperature and Pressure, Incorporating Solvent effects into Molecular Dynamics, Conformational Changes From Molecular Dynamics Simulation
- 3.3 Introduction to Monte Carlo Simulation of Molecules, Calculation of Chemical Potential-Simulating Phase Equilibria by Gibbs Ensemble Monte Carlo Method

Unit 4

Molecular docking (16 hrs.)

- 4.1 Molecular Docking. Structure Based Drug Design – de novo Approach
- 4.2 Molecular Descriptors-Quantitative Structure-Activity Relationship – Concept, and Properties of Organic Molecules- Various Descriptors Used in the QSAR, Multiple Linear Regression and Its Applications To Drug Design
- 4.3 3D Pharmacophore-Derivation and Matching Importance of Molecular Modeling in Drug Discovery

Unit 5

Computer Aided Drug Design (16 hrs.)

- 5.1 Insilco Modeling and CADD: Molecular Modeling Using Computers CADD
- 5.2 Protein-Ligand Docking in Drug Design-Active Site Prediction-Target Discovery-Target Validation-Lead Optimization
- 5.3 Modeller, Auto dock

TEXT BOOKS

Andrew R. Leach. *Molecular Modeling: Principles and Applications*. USA: Prentice Hall, 2007.

Daan Frenkel and Berend Smit. *Understanding Molecular Simulation: From Algorithms to applications*. USA: Academic Press, 2002.

N. Claude Cohen. *Guidebook on Molecular Modelling In Drug Design*. California: Academic Press, 2006.

BOOKS FOR REFERENCE

Alan Hinchliffe. *Molecular Modelling for Beginners*. USA: John Wiley & Sons, 2008.

Charifson P S. *Practical Application of Computer Aided Drug Design*. New York: Dekker, 1997.

JOURNALS

Journal of Molecular Modeling

Journal of Molecular Graphics and Modelling

Journal of Computer-Aided Molecular Design

Current Computer Aided-Drug Design

WEB RESOURCES

<http://accessengineeringlibrary.com/browse/computer-aided-drug-design-and-delivery-systems>

<http://www.southernresearch.org/life-sciences/lead-discovery-and-optimization/medicinal-chemistry/computational-chemistry>

<http://www.ch.ic.ac.uk/local/organic/mod/>

http://www.chemcomp.com/MOE-Molecular_Modeling_and_Simulations.htm

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory:

Section A – 1 x 15 = 15 Marks (ALL questions to be answered)

Section B – 2 x 5 = 10 Marks (2 out of 4 to be answered)

Practical:

Section C – 25 Marks

Third Component:

List of Evaluation modes

Assignment

Seminars

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Theory:

Section A – 1 x 20 = 20 Marks (ALL questions to be answered)

Section B – 3 x 10 = 30 Marks (3 out of 5 to be answered)

Practical:

Section C – 50 Marks

The **practical** exam would have the following pattern:

Database search (protein, compound, etc.)	-	15 marks
Interaction of molecules-Docking	-	15 marks
Homology modeling	-	15 marks
Viva – voce	-	5 marks
Total		50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 - 2016)

SUMMER INTERNSHIP

CODE: 15BI/PN/SI32

CREDITS : 2

OBJECTIVES OF THE COURSE

- To enable students to gain experiential learning in the field in Bioinformatics
- To acquire hands – on training in Bioinformatics Software's

The Summer Internship program is for a minimum period of three weeks. The students are expected to have regular attendance in their respective Institute and submit an report to the Department reporting the experiments they have observed/conducted. The students are expected to give a seminar presentation in the third semester of the work they have observed/conducted.

Guidelines for Evaluation

The maximum marks for the Summer Internship is 50 and is divided into the following:

- a) Log Book (20 Marks)
- b) Seminar presentation (15 Marks)
- c) Attendance (15 Marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

BASICS OF CLINICAL RESEARCH MANAGEMENT

CODE : 15BI/PC/CR44

CREDITS : 4

L T P : 4 1 0

TOTAL PRACTICAL HOURS : 65

OBJECTIVES OF THE COURSE:

- To provide an overview of clinical research.
- To understand the various aspects of clinical research management
- To be conversant with the regulations in clinical management

Unit 1

Drug Development Processes (14 hrs.)

- 1.1 History of Drug Development. Discovery and Selection of Compounds for Human Investigation - Pharmacology-Epidemiology
- 1.2 Pharmacokinetics and Pharmacodynamics - Toxicological Requirements
- 1.3 Clinical Trials – History of Clinical Trials-Stages of Clinical Trials

Unit 2

Clinical Research (15 hrs.)

- 2.1 Issues in Clinical Trials. Nuremberg Code, Declaration of Helsinki, International Conference of Harmonisation and Good Clinical Practice
- 2.2 Role of Ethics Committees and Institutional Review Boards- Special Populations; Women Elderly and Children
- 2.3 Designing of Protocol, SOP CRF, e-CRF, ICF

Unit 3

Regulations in Clinical Research (12 hrs.)

- 3.1 Evolution and History of Regulations in Clinical Research, Patents US Regulatory Structure, IND, NDA, ANDA
- 3.2 FDA Audits and Inspections EU Regulatory Affairs, Organization and Function, INDIAN Regulatory System, Schedule Y- Rules and Regulations
- 3.3 Post Drug Approval Activities, PMS

Unit 4

Clinical Research Management (12 hrs.)

- 4.1 Preparation of a Successful Clinical Study
- 4.2 Study Management, Project management Documentation
- 4.3 Monitoring, Audits, Inspections and Pharmacovigilance

Unit 5

Biostatistics and Data Management

(12 hrs.)

5.1 Importance of Statistics in Clinical Research

5.2 Statistical Considerations at the Design, Analysis and Reporting Stage

5.3 Data Validation, SAE Reconciliation, Query Management

TEXT BOOKS

Lori A. Nesbitt. *Clinical Research What It Is and How It Works*. UK: Jones Barlett Publishers, 2006.

Richard K. Rondel, Sheila A. Varley, Colin F. Webb. *Clinical Data Management*. UK: John Wiley, 2013.

Steven Piantadosi. *Clinical Trails A Methodologic Perspective*. UK: John Wiley, 2005.

BOOKS FOR REFERENCE

Martin M. Zdanowicz. *Concepts in Pharmacogenomics*. UK: Mc Graw Hill, 2010.

Russ B. Altman, David Flockhart, David B. Goldstein *Principles of Pharmacogenetics and Pharmacogenomics*. UK: John Wiley, 2012.

JOURNALS

Journal of Clinical Research & Bioethics

Perspectives in Clinical Research

Asian Journal of Pharmaceutical and Clinical Research

WEB RESOURCES

<http://hub.ucsf.edu/clinical-study-management>

http://icmr.nic.in/ethical_guidelines

<http://www.niaaa.nih.gov/research/guidelines-and-resources/clinical-trial-regulations-policies-and-guidance>

<http://www.fda.gov/ScienceResearch/SpecialTopics/RunningClinicalTrials/ucm155713.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Seminars

Quiz

Group discussion

Assignments

Case studies.

End Semester Examination

Total Marks: 100

Duration: 3 hrs.

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

ADVANCES IN BIOINFORMATICS

CODE: 15BI/PC/BA44

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To develop a quantitative understanding of how Pharmacogenomics plays a major role and the impact of cheminformatics packages available for drawing molecular structure
- To provide awareness about immunoinformatics tools available for vaccine design and also how to handle the microarray data
- To provide a better understanding of R package and its applications in bioinformatics

Unit 1

Pharmacogenomics (10 hrs.)

- 1.1 Definition of Pharmacogenomics and Toxicogenomics – Case Study in Alzheimer’s Diseases
- 1.2 Safety Metabolisms Pharmacology – Exploitory Toxicology
- 1.3 Preclinical Toxicology, Pharmacokinetics and Metabolism

Unit 2

Cheminformatics (11 hrs.)

- 2.1 2D and 3D Molecular Structures. Chemical Structure Drawing Packages
- 2.2 Molecular Descriptors and Fingerprints. Molecular Similarity (or Diversity)
- 2.3 Searching for Chemicals on the Internet (PubChem, eMolecules), SMILES

Unit 3

Next Generation Sequencing (15 hrs.)

- 3.1 Introduction to Next-generation sequencing. History and Future of DNA Sequencing
- 3.2 Workflow Different Platforms Applications
- 3.3 Run Types and Data Analysis

Unit 4

Microarray Analysis (15 hrs.)

- 4.1 DNA Microarray: The Technical Foundations, Importance and Definition
Designing a Microarray Experiment: The Basic Steps
- 4.2 Types of Microarray, NCBI and Microarray Data Management, GEO (Gene Expression Omnibus), MAML

- 4.3 The Promise of Microarray Technology in Treating Disease. Microarray Data, Preprocessing the Data, Measuring Dissimilarity of Expression Pattern, Distance Motifs and Dissimilarity measures, Visualizing Microarray Data

Unit 5

R programming

(14 hrs.)

5.1 Introduction to R, Installing R

5.2 R as a Deluxe Calculator, Creating Objects and Assigning Values

5.3 Graphics: Simple Plotting, Advanced Plotting, Using Color in Plots, Using Subscripts and Superscripts in Graph Labels, Interactive Graphics, Saving Graphical Output, Loops

TEXT BOOK

Crawley M.J. *The R Book*. USA: John Wiley, 2012.

Ole Lund. *Immunological Bioinformatics*. USA: MIT press, 2005

Rammensee. *Immunoinformatics- Bioinformatics Strategies for Better Understanding of Immune, Function*. USA: Wiley, 2003.

BOOKS FOR REFERENE

Darren Flower. *Bioinformatics for Immunomics (Immunomics Reviews)* USA: Springer, 2010.

Gentleman R, Carey V.J, Huber W, Irizarry, RA, and Dudoit, S. *Bioinformatics and Computational Biology Solutions Using R and Bioconductor*. New York: Springer, 2008.

Murrell P. *R Graphics*. USA: Chapman & Hall/CRC, 2011

JOURNALS

Pharmacogenomics and Personalized Medicine

Pharmacogenetics and Genomics

Chemoinformatics: Concepts, Methods, and Tools for Drug Discovery

International Journal of Chemoinformatics and Chemical Engineering

Immunology

The R Journal

WEB RESOURCES

<http://ghr.nlm.nih.gov/handbook/genomicresearch/pharmacogenomics>

<http://cheminformatics.org/>

<http://omicsonline.com/immunoinformatics.php>

<http://cran.r-project.org/doc/Rnews/>

<http://www.r-project.org/>

<http://www.ebi.ac.uk/training/online/course/ebi-next-generation-sequencing-practical-course/what-you-will-learn/what-next-generation-dna->

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Case study

Seminars

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

DISSERTATION

CODE: 15BI/PC/DS49

CREDITS: 9
L T P :0 0 12

Dissertation : 50
Viva : 50

The Dissertation shall contain at least 50 pages and shall be typed with double spacing.

The format for the thesis is as follows:

1. Cover page shall contain
 - a) Title of the dissertation
 - b) Name of the Candidate
 - c) Department of Bioinformatics
Stella Maris College (Autonomous), Chennai – 86
 - d) Month, Year

2. The dissertation shall contain
 - a) Contents page
 - b) i. Certificate page
ii. Acknowledgement page
 - c) At least 5 Chapters including an introduction, Review of Literature, Materials and Methods, Result and Discussion and Summary
 - d) List of figures / list of abbreviations (if needed) shall be given as an appendix
 - e) Bibliography shall be given in alphabetical / chronological order at the end.

3. Each candidate may prepare 3 hard copy and one soft copy of the thesis, one copy for her and submit 2 copies to the Head of the department 15 days before the commencement of the fourth semester examination.

4. The candidate may be advised that the dissertation will be valued and given credit on the criteria of
 - a) Motivation towards the chosen area / formulation of the problem
 - b) Methodology and Analysis
 - c) Capacity to interpret the results obtained

5. The Controller of Examination is requested to arrange for the valuation of the Dissertation as well as the conduct of the Viva – Voce at the college where the

candidates take examinations, within two weeks of the last date of examination for M.Sc. Degree. The panel of examiners will consist of an external examiner and the guide. The guidelines for the Viva-Voce examiners would be that a) They will satisfy themselves that this is a work of the candidate as certified by the department b) The thesis is in the given form and c) The candidate has clear understanding of the concepts, discussed in the thesis.

The Department should certify as follows:

This is to certify that the dissertation in the broad area _____ titled _____ is submitted by _____ - at the elective level for the degree of Master of Science (Mathematics) during the year _____

sd/

sd/

Head of the Department

Guide

6. A) Guidelines for evaluation

The maximum mark for the dissertation is 100 divided into four components

- | | | |
|-----|--|----|
| i. | Style, format and neatness in presentation | 15 |
| ii | Chapterization, logic and reasoning | 10 |
| iii | Methodology – Analysis and interpretation | 25 |
| iv | Viva | 50 |

B) There will be double valuation for the dissertation by the guide and an external examiner who will conduct the viva – voce. The norms for evaluation will be same as applicable for theory papers.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

PHARMACOGENOMICS

CODE: 15BI/PE/PG24

CREDITS : 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 5 2

OBJECTIVES OF THE COURSE

- To understand the basics of pharmacogenomics in the context of variability in drug response
- To examine factors that affect drug response and the application of pharmacogenetics to drug development and drug treatment

Unit 1

Pharmacogenomics (8 hrs.)

- 1.1 Introduction to Basic Concept of Pharmacogenomics. Importance, Clinical Application and Challenges in Pharmacogenomics
- 1.2 Personalized Medicine- Introduction and Importance. The Genetics of Therapeutic Targets and Gene-Based Targets
- 1.3 Pharmacogenomics Necessity in Drug Designing

Unit 2

Genetic Variation (10 hrs.)

- 2.1 Introduction to Genetic Variation, Types of Variants, SNPs, Coding and Cis/Trans Regulatory Variants, Insertion/Deletions
- 2.2 Databases, National Pharmacogenetics Resources/Efforts (PGRN), Pharmacogenomics Knowledge Base (PharmGKB)
- 2.3 Prediction of Structural Changes among Sequences by the Influence of Polymorphisms. Genetic Analysis of Human Variation, Microsatellite for Studying Genetic Variation

Unit 3

Pharmacokinetics & Metabolism (12 hrs.)

- 3.1 Pharmacokinetics (PK), Pharmacodynamics (PD)
- 3.2 Safety Metabolisms Pharmacology, ADME
- 3.3 Definition of Toxicogenomics, Detoxification and Poisoning. Preclinical Toxicology

Unit 4

Pharmacogenomics in Drug Discovery and Development (12 hrs.)

- 4.1 An Introduction to Drug Discovery and Development
- 4.2 Process in Structural Pharmacogenomics- Target Structure optimization, Validation, Lead Identification, ADME Prediction, Synthesis, Assays and Clinical Trials
- 4.3 Drug response to patients, Structural influence in the Drug response. Efficacy and Metabolism of Drugs. Drug Metabolism Pathways and Adverse Drug Reactions

Unit 5

Microarray Analysis (10 hrs.)

- 5.1 DNA Microarray: Importance and Definition, Designing a Microarray Experiment: The Basic Steps
- 5.2 Types of Microarray, NCBI and Microarray Data Management, GEO (Gene Expression Omnibus), MAML
- 5.3 The Promise of Microarray Technology in Treating Disease. Microarray Data, Expression Pattern, Visualizing Microarray Data

TEXT BOOKS:

Rapley R and Harbron S. *Molecular analysis and Genome discovery*. John Willey, 2004.

Russ B. Altman, David Flockhart, David B. Goldstein. *Principles of Pharmacogenetics and Pharmacogenomic*. UK: Cambridge University Press, 2012.

BOOKS FOR REFERENCE

Lori A. Nesbitt. *Clinical Research What It Is and How It Works*. UK: Jones Barlett Publishers, 2004.

Martin M. Zdanowicz. *Concepts in Pharmacogenomics*. New York: McGraw Hill, 2010.

Steven Piantadosi. *Clinical Trials A Methodologic Perspective*. UK: John Wiley, 2005.

JOURNALS

The Pharmacogenomics Journal
American Journal of Pharmacogenomics
Pharmacogenomics and Personalized Medicine
Pharmacogenetics and Genomics

WEB RESOURCES

<http://ghr.nlm.nih.gov/handbook/genomicresearch/pharmacogenomics>
<https://www.pharmgkb.org/>

<http://www.fda.gov/drugs/scienceresearch/researchareas/pharmacogenetics/ucm083378.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Case study

Seminars

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS
(Effective from the academic year 2015 -2016)
FUNDAMENTALS OF BIOINFORMATICS

CODE: 15BI/PE/FB34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 5 2

OBJECTIVES OF THE COURSE

- To familiarize the students with bioinformatics and its role in changing complex biological research
- To enable textual mining of biological literature and bioinformatics tools that are required to query biological data and analyze genomic data

Unit 1

Introduction to Bioinformatics (10 hrs.)

- 1.1 Introduction to Bioinformatics, Classification of biological databases, Biological Data Formats, Application of Bioinformatics in Various Fields
- 1.2 Introduction to Single Letter Code of Amino acids, Symbols Used in Nucleotides
- 1.3 Data Retrieval Systems- Entrez and SRS

Unit 2

Sequence Alignment (12 hrs.)

- 2.1 Introduction to Sequence Alignment. Substitution Matrices, Scoring Matrices – PAM and BLOSUM
- 2.2 Local and Global Alignment Concepts, Dot Plot. Dynamic Programming Methodology: Needleman and Wunsch Algorithm. Smith–Waterman Algorithm.
- 2.3 Multiple sequence Alignment. Progressive Alignment. Database Search for Similar Sequences Using FASTA and BLAST Programs

Unit 3

Phylogenetic analysis (10 hrs.)

- 3.1 Evolutionary Analysis: Distances, Cladistic and Phenetic Methods
- 3.2 Clustering Methods. Rooted and Unrooted Tree Representation
- 3.3 Bootstrapping Strategies, Use of Clustal and PHYLIP

Unit 4

Genome analysis (10 hrs.)

- 4.1 Gene Finding Methods. Gene Prediction: Analysis and Prediction of Regulatory Regions
- 4.2 Fragment Assembly, Genome Sequence Assembly

4.3 Restriction Mapping, Repeat Sequence finder

Unit 5

Microarrays

(10 hrs.)

- 5.1 Concept of Gene Expression, Types of Microarrays; Making Microarrays; Spotted Microarrays
- 5.2 Using Microarrays, Sample Preparation and Labeling, Hybridization, Washing, Image Acquisition
- 5.3 GEO Database. Application of Microarrays

TEXTBOOKS

Baxevanis, Andreas D. and Francis B.F. Ouellette. *Bioinformatics- A Practical Guide to the Analysis of Genes and Proteins*. USA: John Wiley, 2001.

David W. Mount. *Bioinformatics Sequence and Genome Analysis*. INDIA: CBS Publishers, 2003.

Pevsner and Jonathan. *Bioinformatics and Genomics Functional*. USA: John Wiley, 2003.

BOOKS FOR REFERENCE:

Baldi P. and Brunak S. *Bioinformatics: Machine Learning Approach*. USA: MIT Press, 2003.

Chen, Yi-Ping Phoebe. *Bioinformatics Technologies*. Germany: Springer, 2005.

Durbin R, S. Eddy, A. Krogh and G. Mitchison. *Biological Sequence Analysis: Probabilistic Proteins and Nucleic Acids*. USA: Cambridge University Press, 2005.

Higgins, Des and Willie Taylor. *Bioinformatics –Sequence, Structure and Databanks – Practical Approach*. UK: Oxford University Press, 2001.

Lesk Arthur M. *Introduction to Bioinformatics*. UK: Oxford University Press, 2005.

JOURNALS

BMC Bioinformatics

Bioinformatics

Journal of Bioinformatics and Computational Biology

Journal of Biomedical Informatics

Journal of Integrative Bioinformatics

PLoS Computational Biology

WEB RESOURCES

<http://bioinformaticsweb.net/tools.html>

<https://www.bits.vib.be/index.php/training/122-basic-bioinformatics>

<http://bioinformaticssoftwareandtools.co.in/>

<http://www.genscript.com/tools.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Open book test

Seminars

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

RESEARCH METHODOLOGY AND SCIENTIFIC COMMUNICATION

CODE:15BI/PE/RM14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To describe and express the role and importance of research in basic and applied sciences
- To facilitate writing of research proposals / projects and apply for grants in the field of bioinformatics

Unit 1

Introduction (12 hrs.)

- 1.1 Definition of Research and Research Methodology. Principles and Practice of Research. Exploring the Broad Area – Using the Library and Online Resources. Narrowing the Subject. Identifying The Research Problem
- 1.2 Literature Review - Its Relevance and Importance in Directing Research. Citations – Types Of Citations
- 1.3 Action Plan, Design and Pilot Study Undertaking a Research Project

Unit 2

Types of Data (10 hrs.)

- 2.1 Data Collection, Sampling. Sources of Data Primary, Secondary and Tertiary Sources Classification and Presentation of Data
- 2.2 Documents, Types of Documents, Archives, Chronologies
- 2.3 Electronic Sources of Data: Internet, Websites

Unit 3

Scientific Communication (10 hrs.)

- 3.1 Writing a Research Proposal: The Components of the Proposal, Structure of the Proposal. Writing Grant Proposals.
- 3.2 Format of Thesis. Presentation of the Results, Tabulations and Figures.
- 3.3 Guidelines for Writing Papers and Making Posters for Presentation

Unit 4

Bioethics (10 hrs.)

- 4.1 Bioethics- Introduction. Intellectual Property Rights (IPR) and Patents, TRIPS
- 4.2 Case studies on Patents (Basmati, Turmeric and Neem).
- 4.3 Plagiarism –Viper Software

Unit 5

Critiquing a Research Paper

(10 hrs.)

- 5.1 Paper critiquing- the Purpose and the Methodology of Paper Critiquing
- 5.2 Bibliography and End Matters, Editing and Proof Reading a Thesis.
- 5.3 Common Errors in Scientific Writing.

TEXT BOOKS

Beauchamp, T.L., and Childress, J.F. *Principles of Biomedical Ethics*. India: Oxford University Press, 1994.

Gopalan, R. *Thesis Writing*. India: Vijay Nicole Imprints Private Limited, 2005.

Gurumani, N. *Research Methodology for Biological Sciences*. India MJ Publishers, 2010.

Raman, A. *A Handbook on Research Processes*. India: S. Viswanathan Pvt. Ltd., Chennai, 2003.

REFERENCE BOOKS

Kothari C R. *Research Methodology, Methods and Techniques*. India: Wishwa Prakashan, 2009.

Pence, G.E. *Classic Cases in Medical Ethics*. India: McGraw-Hill, 2004.

JOURNALS

The Journal of Communication
International Association for Media And Communication Research
Indian Journal of Science Communication

WEB RESOURCES

<http://www.palgrave.com/studentstudyskills/page/choosing-appropriate-research-methodologies/>
<https://explorable.com/research-methodology>

PATTERN OF EVALUATION

Total Marks: 50

Duration: 90 mins.

Continuous Assessment:

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:
List of Evaluation modes

Assignment
Open book test
Case study

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)
Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)
Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

IMMUNOINFORMATICS

CODE: 15BI/PE/IM14

CREDITS : 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 5 2

OBJECTIVES OF THE COURSE

- To understand the application of information technology to immunology
- To apply the immunological data and to the sophisticated computational solutions available for immunological research

Unit 1

Immune System

(8 hrs.)

- 1.1 Introduction to Immune System. Adaptive and Innate Immunity
- 1.2 Cells of the Immune System, Soluble Mediators of Immunity, Antigens, Immune Responses
- 1.3 Inflammation, Immunopathology

Unit 2

Major Histocompatibility Complex

(10 hrs.)

- 2.1 The Major Histocompatibility Complex (MHC) its Polymorphism, Causes Polymorphism, Supertypes
- 2.2 Epitope. Affinity Maturation. Epitope mapping
- 2.3 Principles of B-cell and T-cell Epitope Prediction. Recognition of Antigen by B cells. Neutralizing Antibody

Unit 3

Computational Immunology

(10 hrs.)

- 3.1 Computational Immunology. Databases in Immunology. From immunome to Vaccine. Vaccine design tools. IMGT immunoinformatics
- 3.2 Reverse Vaccinology and immunoinformatics. Peptides with Antimicrobial Activity or Antibiotic Peptides
- 3.2 The Future of Computational Modelling and Prediction Systems in Clinical Immunology

Unit 4
Immunogenetics (12 hrs.)

- 4.1 From Immunogenetics to Immunomics
- 4.2 Functional Prospecting of Genes and Transcripts
- 4.3 IMGT International ImmunoGeneTics Information System.HLA Nomenclature and the IMGT/HLA Sequence Database

Unit 5
Viral Bioinformatics (12 hrs.)

- 5.1 Viral Bioinformatics. Computational Views of Hosts and Pathogens using VIDA
- 5.2 Drug Discovery: Introduction. Conventional Drug Design Approaches, Irrational vs. Rational, Lipinski rule-pharmacophore Kinetics And Dynamics-ADME Properties
- 5.3 Applications of Computer Based Drug Discovery.

TEXT BOOKS

Christian Schönbach, ShobaRanganathan, and Vladimir Brusic. *Immunoinformatics (Immunomics Reviews)* USA: Humana Press, 2010.

Darren R. Flower. *Bioinformatics for Immunomics (Immunomics Reviews)*. New York: Springer-Verlag, 2010.

BOOKS FOR REFERENCE

Kenneth Murphy. *Janeway's Immunobiology*, UK: Garland Science, 2014.

Robert A. Meyer. *Immunology - from cell biology to disease*. Germany: Wiley VCH, 2007.

Richard A. Goldsby, Thomas J. Kindt, Barbara A. Osborne & Janis Kuby. *Immunology*. USA: WH Freeman Company, 2013.

JOURNALS

Immunology
Immunoinformatics
BMC Genomics
Journal of Computational Biology

WEB RESOURCES

<http://www.imgt.org/Immunoinformatics.html>
<http://rsob.royalsocietypublishing.org/content/3/1/120139>
<http://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.0020071>
<http://omicsonline.com/immunoinformatics.php>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Tests

Seminars

End Semester Examination:

Total Marks: 100

Duration: 3 hrs.

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

DATA MINING

CODE: 15BI/PE/DM14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 5 2

OBJECTIVES OF THE COURSE:

- To provide an insight to Data mining
- To introduce the techniques used in data mining
- To understand these techniques in collecting and sorting of data

Unit 1

Data Mining (8 hrs.)

- 1.1 Introduction: Classification of Data, Relational Databases. Data Warehouses
Transactional Databases .Advanced Database Systems and Advanced
Database Applications
- 1.2 Data Mining Functionalities. Concept /Class Description
- 1.3 Characterization and Discrimination. Association Analysis

Unit 2

Classification and Prediction (10 hrs.)

- 2.1 Classification and Prediction -Clustering Analysis. Evolution and Deviation
Analysis
- 2.2 Classification of Data Mining Systems. Major Issues in Data Mining
- 2.3 Multimedia Data Mining. Spatial Data Mining. Text Mining

Unit 3

Data Processing (10 hrs.)

- 3.1 Data Preprocessing. Data Integration and Transformation, Data Reduction.
Association Rule Mining
- 3.2 The Apriori Algorithm: Finding Frequent Item Sets From Association Mining
to Correlation Analysis
- 3.3 Classification and Prediction Classification by Back Propagation Association-
Based Classification Other Classification Methods

Unit 4

Clustering (12 hrs.)

- 4.1 Clustering – Cluster Analysis – Types of Clustering Methods- Types of Data
in Clustering Analysis
- 4.2 A categorization of Major Clustering Methods. Hierarchical Methods. Density
Based Clustering Methods. Grid Based Methods. Outlier Analysis
- 4.3 Data Mining Applications and Trends in Data Mining – Data mining
Applications in Biotechnology and Bioinformatics

Unit 5**Neural Networks and Machine Learning****(12 hrs.)**

5.1 Introduction to Neural networks, Learning Rules

5.2 Classification Analysis, Learning Algorithm and Model Evaluation

5.3 SOM and SVM Techniques in Data Mining

TEXT BOOK

Jiawei Han and Micheline Kamber. *Data Mining: Concepts and Techniques*, USA: Morgan Kaufmann Publishers, 2011.

BOOKS FOR REFERENCE

Oliviero carugo and Frank Eisenhaber. *Data Ming techniques for life sciences*. Singapore: Humana Press, 2009.

JOURNALS

Data Mining in Bioinformatics

International Journal of Data Mining and Bioinformatics

WEB RESOURCES

<http://www.bioinformaticszen.com/post/an-introduction-to-data-mining-in-bioinformatics/>

<http://biit.cs.ut.ee/>

PATTERN OF EVALUATION**Continuous Assessment:**

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:**List of Evaluation modes**

Assignment

Case study

Seminars

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS
(Effective from the academic year 2015 -2016)
CHEMINFORMATICS

CODE: 15BI/PE/CI14

CREDITS : 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce the basic concepts of using chemical structure databases
- To apply the concepts and learn the use of cheminformatics tools

Unit 1

Introduction (10 hrs.)

- 1.1 Introduction to Cheminformatics, History and Evolution of Cheminformatics, Use of Cheminformatics, Prospects of Cheminformatics
- 1.2 Databases: Chemical Structure Databases (PubChem, Binding database, Drug bank)
- 1.3 Modelling of small molecules and Structure Elucidation

Unit 2

Representation of Molecules (10 hrs.)

- 2.1 Representation of Molecules and Chemical Reactions
- 2.2 Different Types of Notations, SMILES Coding, Structure of Mol files and Sdf files (Molecular converter, SMILES Translator)
- 2.3 Similarity Search of the Molecule

Unit 3

Cheminformatics Databases (16 hrs.)

- 3.1 Structure databases; Reaction Databases; Literature Databases; Medline; GenBank
- 3.2 PIR; CAS Registry; National Cancer Institute (NCI) Database
- 3.3 Databases of Small Molecules (PubChem, ZINC)

Unit 4

Searching Chemical Structure (8 hrs.)

- 4.1 Searching Chemical Structure: Full Structure Search; Sub Structure Search; Similarity Search
- 4.2 Three dimensional Search Methods. Structure Visualization
- 4.3 Drawing the Chemical Structure: 2D & 3D Drawing Tools (ACD Chems sketch). Structure Optimization

Unit 5

Applications of Cheminformatics Tools

(8 hrs.)

- 5.1 Definition of drugs, Structure-Based Drug Design, QSAR
- 5.2 Pharmacophore Design, Ligand-Based Design, De Novo Drug Design Virtual Screening / Docking of Ligands
- 5.3 Protein structure. Fragment-Based Drug Design, ADMET Prediction

TEXT BOOK:

Johann Gasteiger and Thomas Engel. *Cheminformatics-A Textbook*. Germany: Wiley-VCH, 2003.

Johann Gasteiger. *Handbook of Cheminformatics-From Data to Knowledge*, Germany: Wiley-VCH, 2003.

REFERENCE BOOK:

Andrew R. Leach, Valerie J. Gillet. *An Introduction to Cheminformatics*.UK: Springer, 2007.

Bunin, Barry A. Dordrecht. *Cheminformatics: Theory, Practice, and Products*.UK: Springer, 2010.

Bajorath, Juergen, Totowa, N.J. *Cheminformatics: Concepts, Methods, and Tools for Drug Discovery*. USA: Humana Press, 2004.

Ekins, Sean, Hoboken, N.J. *Computer Applications in Pharmaceutical Research and Development*. Germany: Wiley, 2006.

JOURNALS

Journal of Cheminformatics

Cheminformatics: Concepts, Methods, and Tools for Drug Discovery

International Journal of Cheminformatics and Chemical Engineering

BMR Bioinformatics & Cheminformatics

The Journal of Chemical Information and Modeling

WEB RESOURCES

<http://cheminformatics.org/>

<http://www.emolecules.com/info/molecular-informatics>

<http://accelrys.com/products/informatics/cheminformatics/>

http://www.rasalsi.com/services_drugdis.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Case study

Seminars

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 - 2016)

CELL BIOLOGY AND GENETICS

CODE: 15BI/PE/CG14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To understand the structure and function of the Cell and all its components in both Prokaryotic and Eukaryotic cells.
- To understand the Basic Concepts of Genetics.

Unit 1

Prokaryotic and Eukaryotic cells (10 hrs.)

- 1.1 Characteristics, Similarities and Differences
- 1.2 Bacteria Cells - Structure, Organisation, Transport, Virus - Structure, Viral Infective Cycles, Origin and Significance, Viroids and Prions
- 1.3 Chromosomes - Structure and Function of Chromosomes, Centromeres and Telomeres, Mitosis and Meiosis

Unit 2

Organelles (12 hrs.)

- 2.1 Structure and Function of Mitochondria, Plastids (i.e. Chloroplasts), Endoplasmic Reticulum Golgi bodies, Lysosomes and Peroxisomes
- 2.2 DNA -Structure – Conformations, Histones and Non-Histones, Nuclear Matrix and Lamins; Nuclear Envelope, Pore Complexes, Transport Through the Envelope
- 2.3 RNA- Ribosomes – Structure, Assembly of Polypeptides on Ribosomes, Post-Translational Modifications.

Unit 3

Cytoskeleton (12 hrs.)

- 3.1 Structure of the Cell Wall
- 3.2 Structure and Role of Microtubules and Microfilaments in cells -cell-cell Interactions- Cell Adhesion, Tight Junctions and Plasmodesmata
- 3.3 Introduction to Membranes - Structure, Function, and Communication: Roles of Membranes in Eukaryotic Cells; Membrane Structure and Composition, Plasma Membrane - Fluid Mosaic Model; Organization of Membranes in the Cells

Unit 4
Multiple Alleles (10 hrs.)

- 4.1 Human blood groups (A, B, AB, O, M, N and H) and Rh factor - Inheritance and significance
- 4.2 Gene Linkage and Recombination: Coupling and Repulsion Hypothesis Linkage in *Drosophila* Cytological Proof of Crossing Over - Example – *Drosophila*
- 4.3 Mapping: Locating Genes along a Chromosome: Two - Point and Three - Point Crosses

Unit 5
Karyotyping (8 hrs.)

- 5.1 Sex Determination and Sex Chromosomes
- 5.2 Chromosomal Mechanisms of Sex Determination and Karyotyping
- 5.3 Sex determination in Human - Barr body - Importance of Y Chromosome - Klinefelters' and Turners' Syndromes Inter –Sexuality Linked Inheritance: Colour Blindness and Haemophilia Y - Linked Genes

TEXT BOOKS

Klug, William, S. and Michael R. Cummings. *Concepts of Genetics*. USA: Prentice Hall, 2008.

Purvis, William K, David Sadava, Craig Heller and Gordan H. Orians. *Life: The Science of Biology*. USA : Sinauer, 2004.

BOOKS FOR REFERENCE

Burns, George W., and Botto, Paul J. *The Science of Genetics*. USA: Macmillan Publishing Company, 1989.

Darnell, James, Harvey Lodish and David Baltimore. *Molecular and Cell Biology*, Scientific American Books, USA : W.H. Freeman, 2000.

Karp and Gerald. *Cell and Molecular Biology- Concepts and Experiments*, USA : John Wiley, 2013.

Karp, Gerald and Nancy L. Puritt, *Cell and Molecular Biology- Concepts and Experiments*, USA: John Wiley, 2004.

Lodish Harvey, Arnold Berk, Paul Matsudaira, Chris A. Kaiser, Monte Krieger, Mathew P. Scott, S. Lawrence Zipursky and James Darnell. *Molecular Cell Biology*. USA: W.H. Freeman, 2004.

Lewin and Benjamin. *Genes IX*, UK :Oxford University Press, 2009.

Roitte, Ivan M., Brostoff, Jonathan and Male, David K. *Immunology*. Philadelphia: J.B. Lippincott, 1990.

Watson, James, D. *Molecular Biology of the Gene*. USA : The Benjamin Cummings Publishing Company, 2007.

JOURNALS

The Journal of Molecular Cell Biology

The Journal of Cell Biology

Journal of Genetics and Genomics

BMC Cell Biology

WEB RESOURCES

<http://www.nature.com/scitable/topic/cell-biology-13906536>

http://www.biology.arizona.edu/cell_bio/cell_bio.html

<http://learn.genetics.utah.edu/content/science/>

<http://ghr.nlm.nih.gov/>

PATTERN OF EVALUATION

Total Marks: 50

Duration: 90 mins.

Continuous Assessment:

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes

Assignment

Open book test

Seminar

Study on genetic disorders

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

BASIC MATHEMATICS

CODE: 15BI/PE/BM14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enhance the skills in mathematics those are essential for learning Bioinformatics
- To understand and implement various mathematical techniques being applied in analyzing information of biological data

Unit 1

Set Theory (8 hrs.)

- 1.1 Introduction, Examples of Sets, Representation of a Set, Notation
- 1.2 Set Operations - Types of Sets, Subsets, Complement of Sets, Union and Intersection of Sets, Difference of Sets
- 1.3 De Morgan's Law, Complement of a Set, Set Difference, Venn Diagram, Cartesian Product of Sets

Unit 2

Algebra (10 hrs.)

- 2.1 Algebra: Functions, Matrix, Basic Operations, Transpose, square matrices, NonSingular Matrices, Inverse of a Matrix, Determinants, Elementary Applications
- 2.2 Progressions, Arithmetic Progression, Geometric Progressions, Expansions
- 2.3 Exponential Series, Logarithmic Series (without proof) – Simple Problems

Unit 3

Differential Calculus (12 hrs.)

- 3.1 Differentiation of Standard Functions, Basic Rules of Differentiation, Successive Differentiation
- 3.2 Applications (Concepts and Simple Problems only), Meaning of the Derivative, Tangent and Normal, Maxima and Minima
- 3.3 Partial Differentiation

Unit 4

Integral Calculus (12 hrs.)

- 4.1 Methods of Integration, Simple Problems
- 4.2 First Order Ordinary Differential Equations, Second Order Ordinary Differential Equations with Constant Co-Efficient
- 4.3 Fourier Series and Fourier Transforms – Simple Problems

Unit 5**Probability****(10 hrs.)**

5.1 Introduction Probability Distribution: Basics of Binomial, Poisson and Normal Distributions, Baye's Theorem and their Application in Biology

5.2 Random Variable; Discrete and Continuous Probability Distribution, Probability Mass Function, Probability Density Function, Mathematical Expectation

5.3 Binomial Co-efficient, Permutations, Combinations, Identities Applications, Sampling with Replacement

TEXT BOOKS

Bogart, Kenneth, P. *Introductory Combinatorics*. USA : Pitman Publishing, Inc., 1983.

Lipschutz S. and Lipson, M.L. *Discrete Mathematics*, New York: McGraw Hill Book Company, 2001.

Massachusetts and Cohen. *Basic Techniques of Combinatorial Theory*. USA: John Wiley, 1979.

Narayanan S. and Manicavachagam Pillay, T. K., *Calculus*. India: S. Viswanathan Printers and Publishers, 2000.

Narayanan S. and Manicavachagam Pillay, T. K., *Ancillary Mathematics- Book II*, India: S. Viswanathan Printers and Publishers, 2002.

BOOKS FOR REFERENCE

Natarajan, T., Govindaraju T., Rajagopalan K. R. and Muthuswami K., *Matrices*, India: Rochouse, 1970.

Raisinghania, M.D. *Integral Transforms*. India : S. Chand, 1998.

Singaravelu A. *Differential Equations, Fourier Series And Laplace Transforms*, India: Meenakshi Publishers, 2002.

Vittal, P.R. *Allied Mathematics*, India: Margham Publishers, 2001.

JOURNALS

The Journal of Mathematical Behavior

Mathematical Journals

The College Mathematics Journal

International Journal of Mathematics and Statistics Studies

WEB RESOURCES

<http://mathworld.wolfram.com/Integral.html>

http://www-math.mit.edu/~djk/calculus_beginners/

<http://mathworld.wolfram.com/Probability.html>

<https://www.math.hmc.edu/calculus/tutorials/matrixalgebra/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory:

Section A: $4 \times 5 = 20$ (Six questions to be set)

Section B: $2 \times 15 = 30$ (Four questions to be set)

Third Component:

List of Evaluation modes

Assignments

Problem solving

Tests

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A : $5 \times 8 = 40$ (Seven questions to be set).

Section B : $3 \times 20 = 60$ (Five questions to be set).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOINFORMATICS

SYLLABUS

(Effective from the academic year 2015 -2016)

SYSTEMS BIOLOGY

CODE: 15BI/PI/SB34

CREDITS : 4

OBJECTIVE OF THE COURSE

- To introduce the basic concepts of Systems biology
- To train the students in designing a new organism through modelling network concept and manipulating them for biological applications

Unit 1

Introduction

- 1.1 Introduction – Systems Biology is a Living Science
- 1.2 Properties of Models-Model Behaviour- Model Development
- 1.3 Systems Biology is Data Integration

Unit 2

Standard Models and Approaches in Systems Biology

- 2.1 Standard Models and Approaches in Systems Biology
- 2.2 Enzyme Kinetics and Thermodynamics-Metabolic Networks
- 2.3 Structure of Intra- and Intercellular Communication-Receptor-Ligand Interactions

Unit 3

Modeling of Gene Expression

- 3.1 Modeling of Gene Expression-Modules of Gene Expression – Promoter
- 3.2 Identification - General Promoter Structure- Sequence-Based Prediction of Promoter. Representation of Gene Network as Directed and Undirected Graphs.
- 3.3 Bayesian Networks-Boolean Networks- Gene Expression Modeling With Stochastic Equations

Unit 4

Analysis of Gene Expression Data

- 4.1 Analysis of Gene Expression Data- Introduction-DataCapture-DNA Array Platforms
- 4.2 Image Analysis and Data Quality Control-Grid Finding- Quantification of Signal Intensities- Signal Validity- Pre-processing-Global Measures.
- 4.3 Linear Model Approaches- Nonlinear. Fold-change Analysis

Unit 5

Clustering Algorithms

- 5.1 Clustering Algorithms-Hierarchical Clustering- Self-organizing Maps (SOMs).K-means- Validation of Gene Expression
- 5.2 Publication in the Era of Systems Biology- Systems Biology and Text Mining. Systems Biology in Medicine and Drug Development
- 5.3 Guiding the Design of New Organisms -Computational Limitations- Potential Dangers.

TEXT BOOKS

Andres Kriete And Roland Eils. *Computational Systems Biology*. Uk: Elsevier, 2005.

E. Klipp, R. Herwig, A. Kowald C. Wierling, H. Lehrach. *Systems Biology In Practice- Concepts, Implementation And Application*. Germany: Wiley-Vch Verlag Gmbh & Co.Kgaa, 2005.

BOOKS FOR REFERENCE

Choi And Sangdun. *Introduction To Systems Biology*. Usa: Humana Press, 2007.

Edda Klipp, Wolfram Liebermeister, Christoph Wierling, Axel Kowald, Hans Lehrach, Ralf Herwig. *Systems Biology: A Textbook*. Uk: Wiley- Vch.Edinburgh, 2009.

Uri Alon. *An Introduction To Systems Biology: Design Principles Of Biological Circuits*. London: Chapman & Hall/Crc, Taylor And Francis Group, 2006.

Zoltan Szallasi, Joerg Stelling, Vipul Periwal. *Systems Modeling In Cellular Biology*. Usa: Mit Press, 2006.

JOURNALS

Current Synthetic and Systems Biology
Journal of Computer Science & Systems Biology
Eurasip Journal on Bioinformatics And Systems Biology
Bmc Systems Biology

WEB RESOURCES

<http://Sysbio.Med.Harvard.Edu/>
www.Systemsbiology.Org
www.Systemsbiology.Ucsd.Edu/
www.Sysbio.Org/

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 Hrs.

Section A – 20 X 1 = 20 Marks (All Questions To Be Answered)

Section B – 4 X 10 = 40 Marks (4 Out Of 7 To Be Answered)

Section C – 2 X 20 = 40 Marks (2 Out Of 4 To Be Answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE BIOINFORMATICS
SYLLABUS

(Effective from the academic year 2015 -2016)

PYTHON

CODE: 15BI/PI/PT24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To gain knowledge of Python and its use as a programming language
- To enable practical application of Python program

Unit 1

Introduction

- 1.1 Introduction to Python Language, Use of Third-Party Software, Object-Oriented Programming
- 1.2 The Python Environment Variables
- 1.3 Biopython

Unit 2

NumPy and SciPy

- 2.1 Introduction to NumPy and SciPy, Basic Array Manipulations
- 2.2 Basic Math: Equal or copy, Comparisons, Slicing, Sorting and Shaping, Statistical Methods, Array Conversion
- 2.3 Introduction to SciPy

Unit 3

Parsing DNA Data Files

- 3.1 FASTA Files, Genbank Files: File Overview, Parsing the DNA, Gene and Protein Information
- 3.2 Gene Locations Splices, Extracting all Gene Locations
- 3.3 Coding DNA, Proteins, Extracting Translations

Unit 4

Sequence Alignment

- 4.1 Matching Sequences: Perfect Matches, Insertions and deletions
- 4.2 Rearrangements, Global Versus Local Alignments, Sequence Length
- 4.3 Clustering: K-Means Clustering

Unit 5

Text Mining

- 5.1 An introduction to Text Mining, Collecting Bioinformatics Textual Data, Creating Dictionaries
- 5.2 Document Analysis: Text Mining of Documents, Word Frequency
- 5.3 Indicative Words, Document Classification

TEXT BOOKS

Jason Kinser. *Python for Bioinformatics*. Massachusetts: Jones and Barlett Publishers, 2009.

Mitchell L Model. *Bioinformatics Programming Using Python*. USA: O'Reilly Media Publication, 2009.

BOOKS FOR REFERENCE

Mark Lutz. *Learning Python*. USA: O'Reilly Media Publication, 2009.

Martin C Brown. *Python: The Complete Reference*. Osborne: McGraw-Hill Media, 2001

JOURNALS

The Python Papers Source Codes
The Python Papers Anthology
Python Journal

WEB RESOURCES

www.sthurlow.com/python/
www.learnpython.org
www.codecademy.com/en/tracks/python
<https://docs.python.org/2/tutorial/>
www.pyschools.com/

PATTERN OF EVALUATION

End Semester Examination – (3 hrs.)

The duration of the examination will be 3 hrs. – 1 hr theory and 2 hrs practical.

Theory:

Section A – 30 x 1 = 30 Marks (All questions to be answered)

Section B – 10 x 2 = 20 Marks (2 out of 4 to be answered)

Practical:

Section C – 2 x 25 = 50 Marks

Question comprising the following:

Complete a programme,

Write a Python program related to Bioinformatics (transcription, finding motifs/repeats/restriction enzyme etc.)

Output of the given program.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 -2016)

MICROBIOLOGY

CODE: 15BY/PC/MI14

CREDITS : 4

L T P: 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand growth and morphology of microbes
- To create an awareness on applied aspects of microbiology
- To have an overview of the recent advances in the field of microbiology

Unit 1

Bacteriology (15 hrs.)

- 1.1 History and Scope of Microbiology, Classification of Microbes -Bacteria, Fungi, Algae and Protozoa
- 1.2 Ultrastructure of Bacteria, Morphology and Staining
- 1.3 Numerical Taxonomy; Chemotaxonomy; Phylogenetic Relationships - Cladogram, Dendrogram, Universal Phylogenetic Trees

Unit 2

Microbial Growth and Control (12 hrs.)

- 2.1 Microbial Nutrition, Types of Culture Media, Pure Culture Techniques, Preservation of Culture
- 2.2 Microbial Growth-Growth Curve, Measurement of Growth, Continuous and Batch Culture
- 2.3 Physical and Chemical Methods of Microbial Control

Unit 3

Virology (14 hrs.)

- 3.1 Viruses - General Properties of Plant and Animal Virus, Classification of Viruses, Structure, Isolation, Cultivation, Purification
- 3.2 Viral Multiplication - Lytic and Lysogenic Life Cycle
- 3.3 Viruses and Disease – HIV, Ebola, H1N1
- 3.4 Virions and Prions

Unit 4

Food and Industrial Microbiology (11 hrs.)

- 4.1 Food Microbiology –Dairy Products – Fermented Foods – Baker's Yeast, Sauerkraut-Microbial Flora of Fresh Foods, Prebiotics and Probiotics
- 4.2 Industrial Microbiology – Industrially Important Microorganisms-in Fuel-Ethanol, Biofertilisers, Biopesticides, Pharmaceuticals- Production of Antibiotics – Streptomycin
- 4.3 Production of Organic Acids – Citric acid, Production of Enzymes - Amylase, Production of Amino acids – Glutamic Acid, Production of Vitamins – Vitamin B12

Unit 5

Microbial Diseases

(13 hrs.)

- 5.1 Medical Microbiology-Disease Transmission, Patterns and Spread of Infection
- 5.2 Respiratory Tract Infection-Tuberculosis , Viral Influenza, Fungal Pneumonia and Aspergillosis
- 5.3 Gastrointestinal Infection-Dysentery, Gastroenteritis
- 5.4 Urinary Tract Infection – Leptospirosis, Adenovirus Type 2, Fungal Candidiasis
- 5.5 Sexually Transmitted Diseases – Syphilis, Herpes Simplex Virus

TEXT BOOKS

Ananthanarayan, R and Jayaram Paniker C.K. *Textbook of Microbiology*. Chennai: Orient Longman, 1997.

Krasner, R.I. *The microbial challenge*. Canada: Jones and Bartlett, 2010.

Patel, A.H. *Industrial Microbiology*. India: MacMillan, 1999.

Shors, Teri. *Understanding viruses*. Canada: Jones and Bartlett, 2009.

Vasanthakumari. R. *Textbook of Microbiology*. New Delhi: BI, 2007.

BOOKS FOR REFERENCE

Demain, Arnold L. and Davies, Julian E. *Manual of Industrial Microbiology and Biotechnology*. U.S.A.: ASM, 2010.

Dimmock, N.J., Easton, A.J. and Leppard. *Introduction to Modern Virology*. U.S.A.: Blackwell, 2007.

Glazer, A.N., and Nikaido, H. *Microbial Biotechnology*. U.K.: Cambridge, 2007.

Inglis, T. J. *Microbiology and Infection: A Clinical Core Text for Integrated Curricula with Self-Assessment*. U.S.A.: Elsevier Health Sciences, 2007.

Pelczar, Michael, J (Jr.), Reid, Roger, D. Chan E.C.S. and H. Kreig. *Microbiology*. New Delhi: Tata McGraw-Hill, 2001.

Prescott, L.M. *Microbiology*. New Delhi: McGraw-Hill, 2011.

Tortora, G.G.J., Funke, B.R. and Case, C.L. *Microbiology-An Introduction*. U.S.A.: Benjamin-Cummings, 2009.

JOURNALS

Journal of Applied Microbiology

Journal of Industrial Microbiology

WEB RESOURCES

www.asm.org

www.ncbi.nlm.nih.gov/

www.sgm.org

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Seminar

Paper reviews

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

BIOCHEMISTRY

CODE: 15BY/PC/BC14

CREDITS: 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To acquire a fundamental knowledge of biochemistry
- To enable students to apply biochemistry in the processes of Biotechnology and clinical studies

Unit 1

Introduction to Biochemistry (5 hrs.)

- 1.1 The Importance of Biochemistry in Understanding the Processes of the Body
- 1.2 Components of the Cell and Cell Fractionation – Markers for each Organelle
- 1.3 Relationship between Cell Biology and Biochemistry

Unit 2

Chemical and Biological Foundation of Biochemistry (15 hrs.)

- 2.1 Water- Role of water, Maintenance of Body Water
- 2.2 Maintenance of pH – Role of Hemoglobin, Respiratory Control, Role of Kidney, Acidosis, Alkalosis
- 2.2 Structures of the Major Biochemical Components of the Body, Homeostasis, Proteins, Carbohydrates, Lipids, and Nucleic Acids

Unit 3

Enzymes (15 hrs.)

- 3.1 Enzyme Nomenclature, Classification, Cofactor, Active Site, Specificity and Factors Affecting Enzyme Action
- 3.2 Enzyme Regulation- Allosteric, Feedback, Product Inhibition
- 3.3 Application of Enzymes- Enzymes in Clinical Diagnosis and Pharmaceutical Industry

Unit 4

Cellular Metabolism (15 hrs.)

- 4.1 Concepts of Metabolism- Fuel Oxidation and the Role of ATP, the Respiratory Chain and Oxidative Phosphorylation
- 4.2 Glycolysis, Gluconeogenesis, Pentose Phosphate Pathway, Metabolism of Glycogen, Citric Acid Cycle, Metabolism of Ethanol
- 4.3 Oxidation of Fatty Acids, Biosynthesis Fatty Acids and Triglycerides, Degradation of Amino Acids – Transamination, Oxidative Deamination and Urea Cycle

Unit 5

Integrated Metabolism

(15 hrs.)

- 5.1 Tissue Metabolism – Liver and Muscle
- 5.2 Metabolic Adaptations in the Fed State, Starvation State
- 5.3 Signal Transduction- Response to Hormonal Message, Role of Tyrosine Kinases

TEXT BOOKS

Albert, L. Lehninger et al. *Biochemistry*. U.K: Worth, 2007.

Thomas. E. Creighton. *Proteins*. New Work: W. H. Freeman, 2005.

BOOKS FOR REFERENCE

Champe, Pamela C, Richard A. Harvey and Denise R. Ferrier. *Lippincott's Illustrated Reviews: Biochemistry*. India: J.P. Brothers, 2005.

Garrett, H. Reginald and Grisham, M. Charles. *Biochemistry*. U.S.A.: Thomson – Brooks/Cole, 2005.

Jeremy, M. Berg. *Biochemistry*. New York: W.H. Freeman, 2001.

Lubert, Stryer. *Biochemistry*. New York: H. Freeman, 2005.

Segal, I. H. *Enzyme Kinetics*. New York: John Wiley, 1975.

Voet, D. and Voet, G. *Biochemistry*. New York: John Wiley, 2000.

JOURNALS

Journal of Biochemistry

Indian Journal of Clinical Biochemistry

Biochemistry

WEB RESOURCES

www.themedicalbiochemistrypage.org

www.biochemistry.org

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third component:

List of Evaluation modes:

Assignment

Open book test

Case study

Clinical implications of metabolic pathways

Diagnostic applications of biochemicals

Role of Biomarkers

End Semester Examination:**Total Marks: 100****Duration: 3 hours**

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

MOLECULAR BIOLOGY

CODE: 15BY/PC/MB14

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the structure and functional aspects of the cell at molecular level

Unit 1

Introduction to Cell and Molecular Biology (11 hrs.)

- 1.1 The Dynamic Cell, Structure and Functions of Plasma Membrane – Passive and Active transport
- 1.2 Cell Motility – Microfilaments, Intermediate Filaments and Microtubules
- 1.3 Mechanisms of Cell Communication, Extracellular Matrix and Cell – Cell Interactions

Unit 2

Molecular Constituents, RNA Transcription and Processing (11 hrs.)

- 2.1 Nucleic Acids, Genetic Code
- 2.2 Synthesis of Macromolecules, DNA Structure, Replication, Damage and Repair
- 2.3 RNA – Types, Transcription and Processing
- 2.4 Protein Synthesis

Unit 3

Molecular Structure of Genes and Chromosomes (13 hrs.)

- 3.1 Molecular Definition of a Gene
- 3.2 Organisation of Prokaryotic Genome
- 3.3 Organisation of Eukaryotic Genomes – Coding and Non-Coding Sequences
- 3.4 Mobile DNA

Unit 4

Transcriptional and Translational Regulation (16 hrs.)

- 4.1 Transcriptional Regulation in Eukaryotes – Steroid Hormone Receptors, Heat Shock Genes, Homeotic Genes
- 4.2 DNA Methylation and Histone Modification, Protein Processing, Folding, Sorting and Transport, Post Transcriptional Regulation
- 4.3 Transcriptional Regulation in Prokaryotes – Regulation by Repressors and by Activators, Regulation by Attenuation, Translational Regulation in Bacteria

Unit 5

Hybridization Techniques, Cell Cycle and Apoptosis (14 hrs.)

- 5.1 DNA Isolation, Gel Electrophoresis, Blotting and Hybridization Techniques- Northern, Southern, Western, South Western and North Western, Probe Construction – Radioactive and Non- radioactive Labeling Methods
- 5.2 Cell Cycle and Genes Regulating Cell Cycle
- 5.3 Apoptosis- Regulators- Intrinsic and Extrinsic Pathways

TEXT BOOKS

Cooper, G.M. and Hausman, R.E. *The Cell – A Molecular Approach*. U.S.A.: Sinauer Associates. 2013.

Weaver. *Molecular Biology*. India: Tata McGraw Hill. 2007.

Wolfe, Stephen L. *Molecular and Cellular Biology*. U.S.A.: Wadsworth, 1999.

BOOKS FOR REFERENCE

Lewin, Benjamin. *Genes XI*. U.S.A.: Jones and Bartlett, 2012.

Karp, Gerald. *Cell and Molecular Biology – Concepts and Experiments*. U.S.A.: John Wiley, 2010.

Becker, Wayne M. et al. *The World of the cell*. India: Pearson Education. 2009.

Watson, James D. et al. *Molecular Biology of the Gene*. U.S.A.: CSHL, 2008.

Lodish, et al. *Molecular and Cell Biology*. U.S.A.: Scientific American, 2007.

Alberts, Bruce, et al. *Molecular Biology of the Cell*. U.S.A.: Garland, 2007.

JOURNALS

Journal of Molecular Cell Biology
Molecular Biology International

WEB RESOURCES

www.molbiolcell.org
www.biomedcentral.com/bmcmolbiol

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

MICROBIOLOGY - PRACTICAL

CODE: 115BY/PC/P112

CREDITS: 2
L T P: 0 0 3
TOTAL HOURS: 39

1. Culture Media Preparation, Aseptic Techniques (3hrs.)
2. Pure Culture Techniques (3hrs.)
3. Isolation and Culturing of Bacteria, Fungi and Algae (3hrs.)
4. Bacterial Growth Curve (6hrs.)
5. Staining - (6hrs.)
 - a) Simple Staining
 - b) Fungal Staining
 - c) Differential Staining
 - d) Spore Staining
6. Biochemical Tests- (6 hrs.)
 - a) Carbohydrate Fermentation
 - b) TSI Agar Test
 - c) IMViC Test
 - d) Urease
 - e) Catalase
 - f) Oxidase
 - g) Phenylalanine Deaminase Test
 - h) Amylase
 - i) Casein Hydrolysis
 - j) Gelatin Liquefaction
 - k) Coagulase test
7. Kirby- Bauer Antibiotic Sensitivity Test (3hrs.)
8. Resazurin Test to Check the Quality of Milk (3hrs.)
9. Motility by Hanging Drop Method (3hrs.)
10. Mold study- Slide Culture Methods- Yeast Characteristics (3hrs.)

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 6 hours

1. Major experiment to be conducted (14 Marks)
10 Marks for principle, procedure and conduct. 4 Marks for result
2. Minor experiment to be conducted (10 Marks)
5 Marks for principle and procedure, 5 marks for conduct and result
3. 4 Spotters each carrying 4 marks (16 Marks)
4. Viva voce (5 Marks)
5. Record (5 Marks)

End Semester Examination

Total Marks: 50

Duration: 6 hours

1. Major experiment to be conducted (14 Marks)
10 Marks for principle, procedure and conduct. 4 Marks for result
2. Minor experiment to be conducted (10 Marks)
5 Marks for principle and procedure, 5 marks for conduct and result
3. 4 Spotters each carrying 4 marks (16 Marks)
4. Viva voce (5 Marks)
5. Record (5 Marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY
SYLLABUS
(Effective from the academic year 2015 - 2016)

BIOCHEMISTRY AND MOLECULAR BIOLOGY- PRACTICAL

CODE: 15BY/PC/P213

CREDITS : 3

L T P : 0 0 5

TOTAL HOURS : 65

BIOCHEMISTRY

1. Preparation of Buffers (5hrs.)
2. Estimation of DNA by Diphenyl Amine Method (5hrs.)
3. Estimation of RNA by Orcinol Method (5hrs.)
4. Anti-oxidant Assay (5hrs.)
5. Isolation and Estimation of Protein by Lowry and Bradford's Method (5hrs.)
6. Separation and Visualization of Proteins by SDS – PAGE (5hrs.)

MOLECULAR BIOLOGY

1. Isolation of Bacterial DNA (5hrs.)
2. RAPD and RFLP Analysis (5hrs.)
3. Southern Hybridization (5hrs.)
4. Isolation of Total RNA (5hrs.)
5. Northern Blotting (5hrs.)
6. Mitosis and Meiosis using Plant Tissue (5hrs.)
7. PCR Amplification (5hrs.)

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 6 hours

BIOCHEMISTRY

1. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result
2. Minor experiment (5 Marks)
Marks allotted for principle and procedure

MOLECULAR BIOLOGY

3. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result.
4. Minor experiment (5Marks)
Marks allotted for principle and procedure
5. 5 Spotters each carrying 2 marks (10 Marks)
6. Record (5 Marks)
7. Viva voce (5 Marks)

End Semester Examination

Total Marks: 50

Duration: 6 hours

BIOCHEMISTRY

1. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result
2. Minor experiment (5 Marks)
Marks allotted for principle and procedure

MOLECULAR BIOLOGY

3. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result
4. Minor experiment (5Marks)
Marks allotted for principle and procedure
5. 5 Spotters each carrying 2 marks (10 Marks)
6. Record (5 Marks)
7. Viva voce (5 Marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

RECOMBINANT DNA TECHNOLOGY

CODE: 15BY/PC/RD24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To create an awareness on the principles and applications of recombinant DNA technology
- To understand the application molecular biotechnology

Unit 1

Introduction and Enzymes in Recombinant DNA Technology (13 hrs.)

- 1.1 Introduction to Genetic Engineering and Recombinant DNA Technology
- 1.2 Restriction Modification Systems - Types and Nomenclature and Restriction Enzymes TYPE I, II, III
- 1.3 DNA Ligase- Properties and Specificity
- 1.4 Other Enzymes Used in Recombinant DNA Technology - S1 Nuclease, BAL 31 Nuclease
- 1.5 DNA Polymerase, Polynucleotide Kinase, Phosphatase, Reverse Transcriptase - Activity and Mode of Action

Unit 2

Plasmids and Vectors (14 hrs.)

- 2.1 Plasmids- Properties, Incompatibility, Isolation and Purification Techniques
- 2.2 Plasmid Vectors and their Properties, Copy Number, pBR 322, pUC, pGEM3Z – its Construction and Derivatives, Single Stranded Plasmids
- 2.3 Bacteriophage lambda (λ) as a Vector- Essential Features, Organization of Genome, General Structure, Rationale for Vector Construction Cosmids, Phasmids, Fosmids, Phagemids
- 2.4 Filamentous Phage Vectors, L Zap, L Blue Print Vectors, Shuttle Vectors
- 2.5 Expression Vectors, Promoter Probe Vectors, Vectors for Library Construction, Linkers, Adaptors, Homopolymer Tailing

Unit 3

Expression Vectors (12 hrs.)

- 3.1 Expression Vectors - Expression of Foreign DNA in Bacteria- Fusion Protein and in *Pichia sp.* Expression System
- 3.2 YACs, BACs, PACs, MACs and HACs
- 3.3 Shotgun Cloning - Genomic Library and cDNA Library Construction- Marker Genes Recombinant Selection and Screening

Unit 4**Sequencing and Molecular Mapping (13 hrs.)**

- 4.1 DNA Sequencing and Polymerase Chain Reaction- its Principle, Types and Applications, Site Directed Mutagenesis
- 4.2 Molecular Markers and its Applications - RFLP, RAPD, AFLP, VNTR, STS, SSCP, SSR, CAPS, SCAR
- 4.3 Molecular Mapping of Genome - Genetic and Physical Maps, Chromosome Walking

Unit 5**Applications in Industrial and Healthcare (13 hrs.)**

- 5.1 Modern Biotechnology – Products Using Gene Cloning – Monoclonal Antibodies, Insulin, Growth Hormones, Vaccines
- 5.2 Gene Therapy for Inherited Disorders and Neoplastic Disorders
- 5.3 Genetically Modified Organisms in Industry – *Pseudomonas* sp., *Bacillus thuringiensis*

TEXT BOOKS

Brown, Terence, A. *Gene Cloning and DNA Analysis: An Introduction*. U.S.A.: Blackwell, 2010.

Glick Bernard R. and Pasternak Jack J. *Molecular Biotechnology: Principles and Applications of Recombinant DNA*. U.S.A.: ASM Press, 2009.

Primrose, S. B. *Principles of Gene Manipulation: An Introduction to Genetic Engineering*. U.S.A.: Blackwell, 2009.

BOOKS FOR REFERENCE

Dale, Jeremy W., Schantz Malcolm. *From Genes to Genomes: Concepts and Applications of DNA Technology*. U.S.A.: Wiley, 2007.

Innis, Michael A. Gelfand, David H. and Sninsky John J. *PCR Strategies*. U.S.A.: Academic, 1995.

Green, Michael and Sambrook, Joseph. *Molecular Cloning: A Laboratory Manual*. U.S.A.: CSHL, 2012.

Watson James D., et.al. *Recombinant DNA, Genes and Genomes*. Palgrave : Macmillan, 2007.

JOURNALS

Journal of Molecular Biology

Journal of Cloning and Transgenesis

WEB RESOURCES

www.rpi.edu/dept/chem-emg/biotech-enviro/.../rdna.html

[www.web.mit.edu/hst.160/www/quiz/recombinant DNA andcloning.html](http://www.web.mit.edu/hst.160/www/quiz/recombinant%20DNA%20and%20cloning.html)

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Seminar

Paper reviews

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

ANIMAL AND PLANT BIOTECHNOLOGY

CODE: 15BY/PC/AP24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an insight into the techniques and applications of plant and animal cell culture
- To understand concepts of artificial and transgenic animal technology
- To evaluate the risks and benefits of Plant and Animal Biotechnology

Unit 1

Animal Cell Culture (15 hrs.)

- 1.1 Animal Tissue culture - Historical Background, Aseptic Techniques, Culture Vessels and Substrates
- 1.2 Defined Media and Supplements- Serum Free Media- Preparation and Sterilization
- 1.3 Primary Cell Culture- Subculture and Cell Line- Quantitation –Contamination
- 1.4 Cryopreservation-Cytotoxicity

Unit 2

Cloning and Transgenic Animals (10 hrs.)

- 2.1 *In vitro* Fertilization and ART, Embryo Transfer, Pregnancy and Prenatal Diagnosis
- 2.2 Cloning by Species
- 2.3 Transgenic Animals - Production and Application of Transgenic Livestock, Transgenic Animals as Model for Human Diseases
- 2.4 Biotechnology in Animal Production - Manipulation of Growth, Probiotics as Growth Promoters, Manipulation of Lactation, Wool Production in Sheep

Unit 3

Plant Tissue Culture (15 hrs.)

- 3.1 Plant Tissue Culture - Principles and Methodology, Protoplast Technology and Somatic Embryogenesis
- 3.2 Somaclonal Variation, Synthetic Seeds, Production of Secondary Metabolites
- 3.3 Production of Haploid Plants, Germplasm Conservation

Unit 4

Gene Transformation Technology and Applications in Plants (10 hrs.)

- 4.1 Selectable and Scoreable Markers, Reporter Genes and Promoters Used in Plant Vectors
- 4.2 Techniques for Plant Transformation – *Agrobacterium tumefaciens* – Mediated Gene Transfer, Direct Gene Transfer Methods, Chloroplast Transformation
- 4.3 GM Strategies for Insect Resistance – Environmental Impact of BT Crops
- 4.4 Transgenics for Abiotic Stress Tolerance and Cytoplasmic Male Sterility

Unit 5

Applications of Plant Genetic Engineering

(15 hrs.)

- 5.1 Molecular Farming- Carbohydrates and Proteins
- 5.2 Plants as Bioreactors- Antibodies, Foreign Proteins in Plants and Edible Vaccines
- 5.3 Hybrid Seed Production
- 5.4 QTL, Marker Assisted Selection
- 5.5 Applications of Tissue Culture in Agriculture and Horticulture

TEXT BOOKS

Chawla, H.S. *Introduction to Plant Biotechnology*. India: Oxford, 2009.

Freshney, Ian R. *Culture of Animal Cells: A Manual of Basic Technique*. U.S.A.: Wiley-Liss, 2010.

Purohit, S.S. *Agricultural Biotechnology*. India: Agrobios, 2007.

Slater, A., Scott, N and Fowler M. *Plant biotechnology*. U.S.A.: Oxford, 2003.

BOOKS FOR REFERENCE

Biswas. *Agricultural Biotechnology*. New Delhi: Dominant, 2005.

Hammond, J. McGarvey, P and Yusibov V. *Plant Biotechnology*, U.S.A.: Springer, 2000.

Holland, Alan and Johnson, Andrew. *Animal Biotechnology and Ethics*. U.S.A.: Springer, 1998.

Houdebine, Louis-Marie. *Transgenic Animals: Generation and Use*. U.S.A.: CRC, 1997.

Pörtner, Ralf. *Animal Cell Biotechnology: Methods and Protocols*. U.S.A.: Humana, 2007.

Stacey, Glyn and Davis, John. *Medicines from Animal Cell Culture*. U.S.A.: John Wiley, 2007.

Twyman, Richard M. *Gene Transfer to Animal Cells*. U.S.A.: Garland Science, 2005.

JOURNALS

Journal of Animal science and Biotechnology
International Journal of animal Biotechnology
Journal of Plant Molecular Biology and Biotechnology
Plant Biotechnology Reports

WEB RESOURCES

www.jasbsci.com/
www.niab.org.in/
www.pb.ethz.ch/
www.nrcpb.org/

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third component:

List of Evaluation modes:

Assignment

Quiz

Seminar

Debate

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

RECOMBINANT DNA TECHNOLOGY - PRACTICAL

CODE: 15BY/PC/P322

CREDITS : 2

L T P : 0 0 3

TOTAL HOURS: 39

- | | |
|--|----------|
| 1. Restriction Digestion – Agarose Gel Electrophoresis | (6 hrs.) |
| 2. Cloning and Ligation | (6 hrs.) |
| 3. Isolation of Plasmid DNA | (3 hrs.) |
| 4. Preparation of Competent cell | (3 hrs.) |
| 5. Bacterial Transformation | (6 hrs.) |
| 6. Identification of Recombinants – Antibiotic markers, Blue-white screening | (3 hrs.) |
| 7. GFP Cloning | (6 hrs.) |
| 8. DNA Sequencing – Demonstration | (6 hrs.) |

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 6 hours

- | | |
|--|------------|
| 1. Major experiment to be conducted
10 Marks for principle, procedure and conduct. 5 Marks for result | (15 Marks) |
| 2. Minor experiment to be conducted
5 Marks for principle and procedure, 5 marks for conduct and result | (10 Marks) |
| 3. 5 Spotters each carrying 3 marks | (15 Marks) |
| 4. Viva voce | (5 Marks) |
| 5. Record | (5 Marks) |

End Semester Examination

Total Marks: 50

Duration: 6 hours

- | | |
|--|------------|
| 1. Major experiment to be conducted
10 Marks for principle, procedure and conduct. 5 Marks for result | (15 Marks) |
| 2. Minor experiment to be conducted
5 Marks for principle and procedure, 5 marks for conduct and result | (10 Marks) |
| 3. 5 Spotters each carrying 3 marks | (15 Marks) |
| 4. Viva voce | (5 Marks) |
| 5. Record | (5 Marks) |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

ANIMAL AND PLANT BIOTECHNOLOGY – PRACTICAL

CODE: 15BY/PC/P423

CREDITS : 3
L T P : 0 0 5
TOTAL HOURS : 65

ANIMAL BIOTECHNOLOGY

1. Isolation of Genomic DNA from Animal Cells (5 hrs.)
2. Preparation and Sterilization of Animal Cell Culture Media (2 hrs.)
3. Development of Monolayer (3 hrs.)
4. Subculturing / Passaging (2 hrs.)
5. Quantitation of Animals Cells Using Hemocytometer (3 hrs.)
6. Cell Viability Test (2 hrs.)
7. MTT Assay (3 hrs.)
8. Chick Embryo Fibroblast (2 hrs.)
9. Karyotyping (Demonstration) (3 hrs.)

PLANT BIOTECHNOLOGY

- 1 Basic techniques in plant tissue culture (10 hrs.)
 - Preparation of Medium, Surface Sterilization
 - Callus Induction, Organogenesis
 - Embryo Culture
- 2 Protoplast Isolation by Enzymatic Method and Protoplast Fusion (5 hrs.)
- 3 *Agrobacterium* culture, Reporter Gene (GUS) Assay (5 hrs.)
- 4 Production of Synthetic Seeds (5 hrs.)
- 5 Isolation of Plant Genomic DNA (5 hrs.)
- 6 Isolation of Chloroplast (5 hrs.)
- 7 Detection of Antimicrobial Secondary Metabolites Produced by Plant Tissues (5 hrs.)

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 6 hours

Animal Biotechnology

1. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result
2. Minor experiment (5 Marks)
Marks allotted for principle and procedure

Plant Biotechnology

3. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result
4. Minor experiment (5 Marks)
Marks allotted for principle and procedure
5. 5 Spotters each carrying 2 marks (10 Marks)
6. Record (5 Marks)
7. Viva voce (5 Marks)

End Semester Examination

Total Marks: 50

Duration: 6 hours

Animal Biotechnology

1. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result
2. Minor experiment (5 Marks)
Marks allotted for principle and procedure

Plant Biotechnology

3. Major experiment to be conducted (10 Marks)
5 Marks for procedure and 5 Marks for conduct and result
4. Minor experiment (5 Marks)
Marks allotted for principle and procedure
5. 5 Spotters each carrying 2 marks (10 Marks)
6. Record (5 Marks)
7. Viva voce (5 Marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 – 2016)

SOFT SKILLS

CODE : 15BY/PK/SS22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self development
- To instill confidence and face challenges

Unit 1 (6 hrs)

Behavioural Traits

- 1.1 Self Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and mannerisms
- 1.5 Experiential Learning – Based on activities

Unit 2 (5 hrs)

Team Work

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on activities

Unit 3 (5 hrs)

Time Management

- 3.1 Importance of time management
- 3.2 Planning and Prioritizing
- 3.3 Organizing skills
- 3.4 Action Plan
- 3.5 Experiential Learning – Based on activities

Unit 4 (5 hrs)

Conflict Resolution

- 4.1 Reasons for conflict
- 4.2 Consequences of conflict
- 4.3 Managing emotions
- 4.4 Methods of resolving conflicts
- 4.5 Experiential Learning – Based on activities

Unit 5

(5 hrs)

Career Mapping

- 5.1 Goal Setting and Decision Making
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv, (2002), **You Can Win**, Macmillan India Ltd., Delhi.

Mishra, Rajiv K., (2004), **Personality Development : Transform Yourself**, Rupa and Co., New Delhi.

Newstrom, John W. and Scannell, Edward E., (1980), **Games Trainers Play: Experiential Learning**, Tata McGraw Hill, New Delhi.

PATTERN OF EVALUATION (Totally Internal)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

ENZYME AND BIOPROCESS TECHNOLOGY

CODE: 15BY/PC/EB34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquire fundamental knowledge of enzymes and its implications on industrial processes
- To create an awareness on important industrial bio-products and the applications of enzymes in various fields

Unit 1

Introduction to Enzymes (10 hrs.)

- 1.1 Bioenergetics-Concepts, Factors affecting rate of Chemical Reactions, Kinetics of Enzyme Catalysed and Uncatalysed Chemical Reactions
- 1.2 Classification of Enzymes, Mechanisms of enzyme action, Concept of Active Site and Energetics of Enzyme Substrate Complex Formation, Specificity of Enzyme Action, Principles of Catalysis – Collision Theory, Transition State Theory, Role of Entropy in Catalysis

Unit 2

Enzyme Kinetics (15 hrs.)

- 2.1 Kinetics of Single Substrate and Multi-Substrate Enzyme Catalysed Reaction- Estimation of Michaelis-Menten Parameters
- 2.2 Enzyme Inhibition – Reversible and Irreversible Inhibition and Kinetics
- 2.3 Enzyme Immobilization Methods- Characterization and Properties of Immobilized Biocatalysts, Applications of Immobilized Enzymes

Unit 3

Fundamentals of Bioprocess Engineering (13 hrs.)

- 3.1 Media Design and Inoculum Development, Media Optimization,
- 3.2 Sterilization Methods–Medium Sterilization, Batch Sterilization, Continuous Sterilization, Filter sterilization
- 3.3 Basic Configuration of fermenter and ancillaries, Control systems in a fermenter
- 3.4 Microbial Growth Kinetics- Modes of operation- Batch, Fed-batch and Continuous

Unit 4

Microbial Growth Kinetics (12 hrs.)

- 4.1 Quantification of Microbial Growth and Product Formation, Yield Coefficients, Oxygen Consumption and Heat Evolution in Aerobic Cultures, Thermodynamic Efficiency of Growth

- 4.2 Gas – Liquid Mass Transfer – Oxygen Transfer Rate and Coefficient
4.3 Types of Bioreactors, CSTR- Plug Flow Reactor- Fluidized Bed- Packed Bed Reactor.
Solid State Fermentation. Aerobic and Anaerobic Systems

Unit 5

Downstream processing

(15 hrs.)

- 5.1 Techniques Used in Bioproduct Analysis, Cell Distribution Methods for Intracellular Products, Removal of Insolubles, Biomass (and Particulate Debris)
5.2 Separation Techniques, Flocculation, Sedimentation, Centrifugation and Filtration- Solvent Extraction- Aqueous Two-Phase Separation
5.3 Precipitation- Product Isolation and Purification Techniques- Chromatography (Ion-Exchange, Affinity and Molecular Sieving)
5.4 Membrane Separation-Microfiltration- Ultrafiltration - Reverse Osmosis- Product Formulation and Finishing, Crystallization, Gel Permeation Chromatography, Dialysis, Drying and Lyophilization

TEXT BOOKS

Asenjo, Juan A. *Bioreactor Systems Design*. India: CRC, 1995.

Bailey, J.E. and Ollis, D. *Biochemical Engineering Fundamentals*. New York: McGraw – Hill, 2002.

Bryce and Mansi. *Fermentation Microbiology & Biotechnology*. India: Kluwer Academic, 2011.

Doran, Pauline M. *Bioprocess engineering principles*. London: Academic, 1995.

Palmer, Trevor. *Enzymes : Biochemistry, Biotechnology and Clinical Chemistry*. U.S.A.: Horwood, 2004.

Stanbury and Whitaker. *Principles of Fermentation Technology*. U.S.A.: Pergamon, 1984.

BOOKS FOR REFERENCE

Butterworth. *Technological Applications of Biocatalysts*. U.S.A.: BIOTOL, 1995.

Coulson. *Chemical Engineering*. U.S.A.: Pergamon, 1984.

Schuler, Michael L. *Bioprocess Engineering*. U.S.A.: Prentice, 1992.

Straathof, A.J. *Applied Biocatalysis*. New York: Tailor and Francis, 2000.

Wanng, D.I.C. and Cooney, C.L. *Fermentation and Enzyme Technology*. U.S.A.: John Wiley, 1994.

JOURNALS

Biotechnology and Bioprocess Engineering
Bioresources and Bioprocessing
Enzyme and Microbial technology
Enzyme Technology and Molecular Biology

WEB RESOURCES

www.bioprocessintl.com/
www.ibclifesciences.com/BPI/overview.xml
www.techenzyme.com/
www.abenzymes.com/
www.wildfermentation.com/
John Schollar and Benedikte Watmore, Practical Fermentation-a technical guide
web.mit.edu/professional/short.../fermentation_technology.html

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Quiz

End Semester Examination.

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

IMMUNOLOGY

CODE:15BY/PC/IM34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To study the basic concepts of immunology and its use in human welfare

Unit 1

Introduction to Immune System (13 hrs.)

- 1.1 Basic Concepts in Immunology, Self, Non-self-recognition - Innate and Adaptive Immunity
- 1.2 Cells and Organs of the Immune System
- 1.3 Antigens- Classification and Characteristic Features
- 1.4 Immunoglobulin - Classes-Primary Structure--Biological Activities
- 1.5 Antigen-Antibody Reactions

Unit 2

B and T Cell Responses (15 hrs.)

- 2.1 Complement system, Function- Components-Activation-Regulation-Biological Consequences
- 2.2 Major Histocompatibility Complex, General Organization-MHC Molecules and Genes-Regulation-Antigen Processing and Presenting Pathway
- 2.3 T Cell-Receptors, Maturation-Activation and Differentiation
- 2.4 B Cell-Receptors, Maturation-Activation and Differentiation

Unit 3

Immune Effector Mechanism (16 hrs.)

- 3.1 Cytokines, Properties-Receptors-Antagonists-Cytokine Related Diseases
- 3.2 Hypersensitivity Reactions-Gell and Coombs Classification-Type I, II, III, IV
- 3.3 Leukocyte Activation and Migration
- 3.4 Cell Mediated Cytotoxicity
- 3.5 Immune Responses in Tissues

Unit 4

Immune System in Health and Diseases (10 hrs.)

- 4.1 Immune System in Health and Diseases- Immune Response to Viral, Bacterial, Fungal and Parasitic Infection
- 4.2 Autoimmunity-Organ Specific-Systemic-Treatment of Autoimmune Diseases
- 4.3 Primary Immunodeficiency- B cell and T cell Deficiency
- 4.4 AIDS and Secondary Immunodeficiencies

Unit 5

Immune System in Health and Diseases (11 hrs.)

- 5.1 Transplantation Immunology- Basis of Graft Rejection-General and Specific Immunosuppressive Therapy-Immune Tolerance to Allograft-Clinical Transplantation
- 5.2 Tumor Immunology- Oncogenes and Cancer Induction-Tumors and Tumor Antigens- Immune Response to Tumors-Cancer Immunotherapy
- 5.3 Vaccines- DNA Vaccines- RNA Vaccines

TEXT BOOKS

Peter J. Delves, Seamus J. Martin, Dennis R. Burton, Ivan M. Roitt. *Roitt's Essential Immunology*. U.S.A.: Wiley-Blackwell, 2011.

Thomas J. Kindt, Barbara A. Osborne and Richard A. Goldsby. *Immunology*. U.S.A.: W. H. Freeman, 2006.

BOOKS FOR REFERENCE

Parslow, T.G., Sites, D, P and Terr., A.T. *Medical Immunology*. U.S.A.: McGraw-Hill, 2001.

Tizard. L R. *Immunology: An Introduction*. New York: Saunders, 1995.

JOURNALS

The Journal of Immunology
American Journal of Immunology
BMC Immunology

WEB RESOURCES

www.library.csusm.edu/course_guides/biology
www.immunologylink.com
<http://www.wiley.com/college/bio/karp12791/weblinks.html>

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Group Discussion

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE : BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

ENZYME AND BIOPROCESS TECHNOLOGY - PRACTICAL

CODE: 15BY/PC/P533

CREDITS : 3
L T P : 0 0 5
TOTAL HOURS : 65

- | | |
|--|-----------|
| 1. Enzyme Kinetics | (5 hrs.) |
| 2. Effect of pH, Temperature on Enzyme Activity | (10 hrs.) |
| 3. Thermal Stability on Enzyme Activity | (5 hrs.) |
| 4. Enzyme Inhibition Kinetics | (5 hrs.) |
| 5. Enzyme Immobilization using Sodium Alginate | (5 hrs.) |
| 6. Determination of Thermal Death Point of Bacterial Culture | (5 hrs.) |
| 7. Production of Ethanol using <i>Saccharomyces cerevisiae</i> | (5 hrs.) |
| 8. Sauerkraut Production | (5 hrs.) |
| 9. Growth of Bacteria-Estimation of Biomass, Calculation of Specific Growth Rate | (5 hrs.) |
| 10. Placket-Burman Design for Media Optimization | (15 hrs.) |

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 6 hours

- | | |
|--|------------|
| 1. Major experiment to be conducted | (14 Marks) |
| 10 Marks for principle, procedure and conduct. 4 Marks for result. | |
| 2. Minor experiment to be conducted | (10 Marks) |
| 5 Marks for principle and procedure, 5 marks for conduct and result. | |
| 3. 4 Spotters each carrying 4 marks | (16 Marks) |
| 4. Viva voce | (5 Marks) |
| 5. Record | (5 Marks) |

End Semester Examination

Total Marks: 50

Duration: 6 hours

1. Major experiment to be conducted (14 Marks)
10 Marks for principle, procedure and conduct. 4 Marks for result.
2. Minor experiment to be conducted (10 Marks)
5 Marks for principle and procedure, 5 marks for conduct and result.
3. 4 Spotters each carrying 4 marks (16 Marks)
4. Viva voce (5 Marks)
5. Record (5 Marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

IMMUNOLOGY - PRACTICAL

CODE: 15BY/PC/P633

CREDITS: 3
L T P : 0 0 5
TOTAL HOURS: 65

- | | |
|---|-----------|
| 1. Differential Counting | (10 hrs.) |
| 2. Immunodiffusion-Radial, ODD (pattern and titration) | (10 hrs.) |
| 3. Immunoelectrophoresis-IEP, cIEP, Rocket Electrophoresis | (10 hrs.) |
| 4. Immunodiagnosics- Widal Test, Latex Agglutination Test (CRP) | (5 hrs.) |
| 5. Isolation of Lymphocytes | (5 hrs.) |
| 6. Isolation of Rosette cells | (5 hrs.) |
| 7. Purification of IgG | (5 hrs.) |
| 8. ELISA (DOT) | (5 hrs.) |
| 9. Western Blotting | (10 hrs.) |

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 6 hours

- | | |
|--|------------|
| 1. Major experiment to be conducted
10 Marks for principle, procedure and conduct. 4 Marks for result | (14 Marks) |
| 2. Minor experiment to be conducted
5 Marks for principle and procedure, 5 marks for conduct and result | (10 Marks) |
| 3. 4 Spotters each carrying 4 marks | (16 Marks) |
| 4. Viva voce | (5 Marks) |
| 5. Record | (5 Marks) |

End Semester Examination

Total Marks: 50

Duration: 6 hours

1. Major experiment to be conducted (14 Marks)
10 Marks for principle, procedure and conduct. 4 Marks for result
2. Minor experiment to be conducted (10 Marks)
5 Marks for principle and procedure, 5 marks for conduct and result
3. 4 Spotters each carrying 4 marks (16 Marks)
4. Viva voce (5 Marks)
5. Record (5 Marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

SUMMER INTERNSHIP

CODE: 15BY/PN/SI32

CREDITS : 2

OBJECTIVES OF THE COURSE

- To enable students to gain experiential learning in the field in Biotechnology
- The acquire hands – on training in Biotechnological techniques

The Summer Internship program is for a minimum period of three weeks. The students are expected to have regular attendance in their respective Institute and submit an assignment to the Department reporting the experiments they have observed/conducted. The students are expected to give a seminar presentation in the third semester of the work they have observed/conducted.

Guidelines for Evaluation

The maximum marks for the Summer Internship is 50 and is divided into the following:

- | | |
|-------------------------|------------|
| a) Assignment | (20 Marks) |
| b) Seminar presentation | (15 Marks) |
| c) Attendance | (15 Marks) |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

STEM CELL BIOLOGY AND TISSUE ENGINEERING

CODE: 15BY/PC/ST44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of the basic concepts of Stem Cell Biology and Tissue Engineering
- To create an awareness on the applications in the field of regenerative medicine

Unit 1

Introduction to Stem Cells (12 hrs.)

- 1.1 Stem Cells - Definition, Characterization, Pluripotency, Self-renewal and Differentiation
- 1.2 Pluripotent Stem Cells from Vertebrate Embryos
- 1.3 Stem Cell Niches - Niche Specification within Mammalian Tissues
- 1.4 Adult Stem Cell from Amniotic Fluid- Cord Blood and Tooth Primordial

Unit 2

Mechanism of Stem Cells (15 hrs.) Basic

- 2.1 Basic Biology, Mechanism of Stem Cells, Molecular Basis of Pluripotency-Influence of the IL6 Family of Cytokines
- 2.2 Extrinsic Determinants and Intrinsic Determinants of Pluripotency
- 2.3 Epigenetic Configuration of Pluripotent Cells
- 2.4 Mechanism of Stem Cell Renewal

Unit 3

Applications of Stem Cells (18 hrs.)

- 3.1 Stem Cell Gene Therapy, Cancer Stem Cells
- 3.2 Neural Stem Cells for Central Nervous System Repair-Spinal Cord Injury
- 3.3 Use of Embryonic Stem Cells to Treat Heart Disease
- 3.4 Insulin-Producing Cells Derived from Embryonic Stem Cells
- 3.5 Stem Cells for Burns and Skin Ulcers
- 3.6 Orthopedic Applications of Stem Cells

Unit 4

Introduction to Tissue Engineering

(10 hrs.)

- 4.1 Tissue Engineering-Basic Biology of Tissue Engineering-the Basis of Growth and Differentiation, Morphogenesis and Tissue Engineering
- 4.2 *In vitro* Control of Tissue Development
- 4.3 Growth Factors, Tissue Engineering Bioreactors
- 4.4 Tissue Assembly in Microgravity
- 4.5 Biomaterials in Tissue Engineering

Unit 5

Applications of Tissue Engineering

(10 hrs.)

- 5.1 Bioartificial Organs–Bioartificial Pancreas, Hepat Assist Liver Support System
- 5.2 Hematopoietic System- Red Blood Cell Substitutes-Renal Replacement Devices
- 5.3 Brain Implants-Neural Stem Cells
- 5.4 Periodontal Applications, Artificial Womb
- 5.5 Future Perspectives of Tissue Engineering

TEXT BOOKS

Robert P. Lanza, Robert Langer and Joseph Vacanti. *Principles of Tissue Engineering*. U.S.A.: Academic, 2007.

Robert Lanza. *Essentials of Stem Cell Biology*. U.S.A.: Academic, 2005.

BOOKS FOR REFERENCE

Atala, Anthony. *Principles of Regenerative Medicine*. U.S.A.: Academic, 2008.

Belval, Brian. *Critical Perspectives on Stem Cell Research*. U.S.A.: The Rosen, 2006.

Davis. *Cell therapy, Stem Cells and Brain Repair*. U.S.A.: Humana, 2009.

Fong, Calvin A. *Stem Cell Research Developments*. U.S.A.: Nova, 2007.

Greer, Erik V. *Neural Stem Cell Research*. U.S.A.: Nova, 2006.

Lanza, Robert and Klimankaya, Irina. *Essential Stem cell Methods*. U.S.A.: Academic, 2009.

Micklem. H.S, Loutit John. F. *Tissue grafting and radiation*. New York: Academic, 2004.

Notarianni, Elena and Evans. Martin J. *Embryonic Stem Cells*. New York: Oxford, 2006.

Penso. G, Balducci. D. *Tissue cultures in biological research*. Amsterdam: Elsevier, 2004.

Sylvia, S. Mader. *Human Biology*. U.S.A.: McGraw, 2011.

JOURNALS

International Journal of Stem Cell

Journal of Tissue Engineering and Regenerative Medicine

Journal of Biomaterials and Tissue Engineering

WEB RESOURCES

stemcells.nih.gov/

www.nature.com/nature/stemcells/

www.cell.com/cell-stem-cell/

www.nuigalway.ie/anatomy/tissue_engineering.html

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Group Presentation

Biological Models

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 -2016)

FOOD AND PHARMACEUTICAL BIOTECHNOLOGY

CODE: 15BY/PC/FP44

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquire knowledge on the recent advances in food and pharmaceutical biotechnology
- To enable students to apply the principles and techniques in the relevant fields

Unit 1

Introduction to Food Processing (15 hrs.)

- 1.1 Source of Food - Food of Plant, Animal and Microbial Origin, Different Foods and Groups of Foods as Raw Materials for Processing, Need and Significance of Processing these Foods.
- 1.2 Milling of Grains and Pulses, Edible Oil Extraction, Pasteurisation of Milk and Yoghurt, Canning and Bottling
- 1.3 Drying – Traditional and Modern Methods of Drying, Dehydration of Fruits, Vegetables, Milk, Animal Products etc., Preservation by Use of Acid, Sugar and Salt
- 1.4 Pickling and Curing with Microorganisms and Microbial Fermentation, Frying, Baking, Extrusion Cooking

Unit 2

Food Preservation (12 hrs.)

- 2.1 Food Preservation- Principles of Food Preservation, Use of Chemical Preservatives, Canning, Freezing and Dehydration, Use of Radiation
- 2.2 Chemical and Physical Properties of Food Affecting Microbial Growth – pH, Water Activity, Redox Potential, Nutrients, Antimicrobial Compounds
- 2.3 Role of Microorganisms in Food Spoilage

Unit 3

Food Packaging and Quality Assurances (14 hrs.)

- 3.1 Basic Packaging Materials, Types of Packaging, Packaging Design, Packaging for Different types of Foods, Retort Pouch Packing, Costs of Packaging and Recycling of Materials
- 3.2 Food Borne Infections and Intoxications, Infective and Toxic types
Types – *Clostridium sp.*, *Salmonella sp.*, *Shigella sp.*, *Staphylococcus sp.*, *Campylobacter sp.*, *Listeria sp.*
- 3.3 Mycotoxins in Food with Reference to *Aspergillus* species
- 3.4 Quality Assurance, Microbiological Quality Standards of Food, Government Regulatory Practices and Policies, FDA, EPA, HACCP, ISI, ISO, Genetically Modified Foods
Classification of additives, E-number
- 3.5 Biosensors in Food

Unit 4

General Pharmacology

(11 hrs.)

- 4.1 Introduction of Pharmacology, Sources of Drugs, Route of Administration, Mechanism of Action of Drugs- Absorption, Distribution, Metabolism and Excretion of Drugs
- 4.2 Pharmacological Classification of Drugs - Analgesics, Antipyretics, Anti-inflammatory, Antidepressants and CNS Stimulants, Anti-hypertensive Drugs and Anti-hyper lipidemic Drugs. Diuretics and Anti-diuretics, Anti-asthmatic Drugs

Unit 5

Formulation and Delivery

(13 hrs.)

- 5.1 Compressed Tablets-Wet Granulation –Dry Granulation or Slugging-Direct Compression-Tablet Press
- 5.2 Formulation-Coating-Capsules Sustained Dosage Forms-Parental Solutions-Oral Liquids-Injections-Ointments-Standard of Hygiene and Good Manufacturing Practices
- 5.3 Transdermal Delivery System, Liposomes and Nanoparticles
- 5.4 Personalized Medicine
- 5.5 Pharmacogenomics

TEXT BOOKS

Adams, M. R. Moss, M. O. *Food Microbiology*, U.S.A.: Royal Society of Chemistry, 2000.

Doyle, M. P., Buchanan, R. L. *Food Microbiology: Fundamentals and Frontiers*. U.S.A. ASM, 2012.

BOOKS FOR REFERENCE

Garbutt, J. *Essentials of Food Microbiology*, U.S.A.: Hodder, 1997.

George, B. J. *Basic Food Microbiology*. U.S.A.: Springer, 1989.

Joshi, V. K., Pandey. *A Biotechnology: Food Fermentation Microbiology, Biochemistry and Technology*. India: Educational, 1999.

Katzung, B. G. Masters, S. B., Trevor, A. J. *Basic and Clinical Pharmacology*. U.S.A.: McGraw, 2012.

Prajapati, J. B. *Fundamentals of Dairy Microbiology*. India: Nadiad Akta Prakashan, 1995.

Satoskar, R. S., Bhandarkar, S.D., Rege, N. *Pharmacology and Pharmacotherapeutics*. India: Popular Prakashan, 1973.

Tripathi K D. *Essentials of Medical Pharmacology*. India: Jaypee. 2013.

JOURNALS

Journal of Food Microbiology

Journal of Food and Pharmaceutical sciences

WEB RESOURCES

[www. nottingham.ac.uk](http://www.nottingham.ac.uk)

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Seminar

Paper reviews

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

DISSERTATION

CODE:15BY/PC/DI49

CREDITS : 09

L T P: 0 0 12

GUIDELINES FOR DISSERTATION

Project should be done individually. Each student will choose a topic of her interest and the student will be assigned to a supervisor.

The project will require practical work with the submission of a project report. It should include wet lab work. The duration of the project work is between 3 and 6 months

The project report should be submitted in the prescribed format containing a minimum of 50 pages. References should not be counted with the main pages. The report should be enhanced with photographs.

Each candidate has to give three periodical reviews to the internal guide on the scheduled dates prescribed by the department.

Each candidate can prepare 4 hard copies of the thesis. 1 copy for her and 3 copies must be submitted to the department. The project should be submitted on the scheduled date prescribed by the Department. The student should appear for Viva-voce before a panel comprising the External Examiner, the supervisor and the Head of the Department.

Guidelines for Evaluation

The maximum marks for the dissertation is 200 and this is divided into 4 compartments.

- | | |
|--|------------|
| a) Style format and neatness in presentation | (50 Marks) |
| b) Logic and reasoning | (25 Marks) |
| c) Methodology – analysis and interpretation | (75 Marks) |
| d) Viva | (50 Marks) |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

RESEARCH METHODOLOGY AND BIOSTATISTICS

CODE: 15BY/PE/RB14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To study the importance of research in basic and applied sciences
- To disseminate information on the collection, analysis and interpretation of biological data by using biostatistical tools

Unit 1

Principles of Research (10 hrs.)

- 1.1 Principles and Practice of Research- Literature Review, Action Plan and Pilot Study
- 1.2 Undertaking a Research Project- Data Collection
- 1.3 Classification and Presentation of Data

Unit 2

Presentation of Project (10 hrs.)

- 2.1 Preparing Manuscripts for Publication, Oral and Poster Presentation
- 2.2 Project Proposal Writing, Reference, Cross-Referencing, Proof Reading, Grant Application
- 2.3 Presentation of Project- Writing Reports, Organization of Manuscript, Writing a Thesis, Scientific Writing, Plagiarism
- 2.4 Presentation of the Results - Software Packages (SPSS) for Data Analysis
- 2.5 Funding Agencies for Project

Unit 3

Biosafety and Bioethics (8hrs.)

- 3.1 Biosafety – Cartagena Protocol, Different Levels of Biosafety
- 3.2 Containment Types, Facilities for Genetic Engineering Experiments
- 3.3 Good Laboratory Practices (GLP), Basic Laboratory and Maximum Containment Laboratory
- 3.4 Bioethics- Introduction, Intellectual Property Rights (IPR), Ethical Committee

Unit 4

Biostatistics (12 hrs.)

- 4.1 Applications in Biology-Collection-Classification –Tabulation and Diagrammatic Representation

- 4.2 Central Tendency – Measures of Dispersion
- 4.3 Correlation and Regression Analysis, ANOVA-Concepts and Simple Problems Only
- 4.4 Probability- Addition and Multiplication Theorem - Probability Distributions- Binomial, Poisson and Normal Distribution
- 4.5 Sampling Techniques- Concepts and Simple Problems Only

Unit 5

Parametric and Nonparametric Statistics

(12 hrs.)

- 5.1 Hypothesis Testing –Null Hypothesis
- 5.2 Chi-Square Test
- 5.3 Students T- Test, Z- Test-F- Test
- 5.4 Tukey's test - Concepts and Simple Problems Only

TEXT BOOKS

Bhuvaneshwari, S. *Introduction to Biosafety*. Chennai: Marina, 2008.

Gurumani, N. *Scientific thesis writing and Paper Presentation*, Chennai: MJP, 2010.

Gurumani, N. *Research Methodology for Biological Sciences*. Chennai: MJP, 2006.

Mariappan, P. *Biostatistics- An Introduction*. Chennai: Pearson, 2013.

Pranab Kumar Banerjee. *Introduction to Biostatistics*. India: S Chand, 2014.

BOOKS FOR REFERENCE

Gurumani, N. *An introduction to Biostatistics*. Chennai: MJP, 2005.

Negi, S. *Biostatistics*. India : AITBS, 2002.

Raman, A. *A Handbook on Research Processes*. Chennai: S. Viswanathan, 2003.

JOURNALS

Journal of Mixed Methods Research
International Journal of Qualitative Methods
American Journal of Biostatistics
International Journal of Biostatistics
JP Journal of Biostatistics

WEB RESOURCES

www.nngroup.com/articles/which-ux-research-methods/

www.processresearchmethods.org.

www.statsoft.com/textbook/

biosun1.harvard.edu/
www.bettycjung.net/Statsites.htm
www.ucl.ac.uk/statistics/biostatistics

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Group discussions

Debate

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

PATENTING AND ENTREPRENEURSHIP

CODE: 15BY/PE/PN14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquire a fundamental knowledge of the concepts of patenting
- To encourage and promote Entrepreneurship

Unit 1

Intellectual Property Rights (10 hrs.)

- 1.1 IPRs – Implications for India, WTO, WIPO, GATT, TRIPS
- 1.2 Patenting and the Procedures Involved in the Applications for Patents and Granting of Patent
- 1.3 Compulsory Licenses, Patent Search. Special Application of Patent Laws in Patenting of Living Organisms, Plant Breeders Rights, Legal Implications, Traditional Knowledge, Commercial Exploitation, Protection

Unit 2

Ethical Issues in Plant and Animal Research (10 hrs.)

- 2.1 Ethics: Regulations on Field Experiments and Release of GMO (Genetically Modified Organisms), International and Indian Regulatory Authority – BRAI, Labeling of GM (Genetically Modified) Foods
- 2.2 Impact of Gene Cloning, Legal, Social and Ethical Issues in Organ Transplantation

Unit 3

Ethical Implications of Human Genome Project (8 hrs.)

- 3.1 Ethical Implications of Human Genome Project – International Ethical and Legal Issues Connected to HGP
- 3.2 Human Fetal Sex Determination – Implications in India Genetic Study on Ethnic Races

Unit 4

Entrepreneurship (12hrs.)

- 4.1 Introduction, Concept and Theory, Entrepreneurial Traits and Motivation
- 4.2 Nature and Importance of Entrepreneurship in India, Promoting Entrepreneurship, Biotech Company Roadmap, Legal, Regulatory and Other Business Factors
- 4.3 Barriers in Entrepreneurship, Agreements, Valuation and Business Concerns

Unit 5

Entrepreneurship Strategies

(12 hrs.)

- 5.1 Funding of Biotech Business, MSME and Technology Incubator
- 5.2 Potential Entrepreneurship Activities in Biotechnology, Product Development, Marketing, Role of Knowledge centers and Research and Development (Knowledge Centers like Universities and Research Institutions, Role of Technology and Upgradation)
- 5.3 Biotech Parks, Biotechnology Industries in India and the Potential Job Opportunities

TEXT BOOKS

Butler Gerard M. and Harris Antony. *Bioethics guide to Pharmaceutical Manufacturers*. U.K.: Medicines Control Agency, 2002.

Butler M. *Animal Cell Culture and Technology*. New Delhi: Bios International, 2000.

Damien Hine and John Kapeleris. *Innovations and Entrepreneurship –An international perspectives*. U.K.: Edward Elgar, 2006.

Jeffery M. Smith. *Seeds of Deception* U.S.A. : Chelsca Green, 2003.

Thomas Brenner and HolgerPatzelt. *Handbook of Bio-Entrepreneurship*. U.S.A.: Springer, 2008.

Verma and Agarwal. *Intellectual property Rights*. New Delhi: I. K. International, 1992.

BOOKS FOR REFERENCE

Craig Shimasaki. *Biotechnology Entrepreneurship*. U.S.A.: Elsevier, 2014.

Sharma, P.D. and Agarwal P.K. *Patent Co-operation Treaty*, New Delhi: MJ, 2002.

JOURNALS

World Patent Information

Bio-Entrepreneur

Journal of Commercial Biotechnology

Journal of the Patent and Trademark Office Society

WEB RESOURCES

www.ita.ucsf.edu/

www.nature.com/bioent/

www.epo.org/

www.ipindia.nic.in

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Group discussions

Debate

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

MARINE BIOTECHNOLOGY

CODE: 15BY/PE/MT14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable student to have a clear understanding of the concepts of Marine Biology
- To have an additional dimension to the study Marine Biotechnology and its economic importance

Unit 1

Introduction to Marine Biotechnology (10 hrs.)

- 1.1 Basic Concepts – Composition of Seawater, Origin of Ocean Salts, Concepts of Chlorinity and its Significance, Salinity Measurements, Dissolved and Particulate Organic Matter – their Interaction with Marine Life, Eutrophication, Marine Sediments – Texture and Chemistry
- 1.2 Classification of Marine Environment – Marine, Brackish, Estuarine, Mangroves, Lagoons, Coral Reefs – their Physico-Chemical Features
- 1.3 Plankton and Nekton – Classification of Plankton, Methods of Collection, Preservation, Phytoplankton Blooms and Primary Production

Unit 2

Diversity of Marine Environment (8 hrs.)

- 2.1 Hydrothermal Vents-Vent Biodiversity, Hyperthermophilic and Barophilic Microorganisms and their Applications
- 2.2 Biotechnological Applications of Extremozymes from Extremophilic Organisms
- 2.3 Unculturable Bacteria, Occurrence, Characteristics and Exploitation

Unit 3

Pollution and Biomaterial Interaction (10 hrs.)

- 3.1 Marine Pollution-Major Pollutants-Heavy Metal, Pesticide, Oil, Thermal, Radioactive, Plastics, Litter and Microbial
- 3.2 Biological Indicators (Marine Microbes, Algae and Crustaceans) and Accumulators. Application of Protein Biomarkers, Biosensors and Biochips
- 3.3 Biodegradation of Natural and Synthetic Waste Materials, Bioremediation-Separation, Purification and Bio Removal of Pollutants
- 3.4 Biofouling, Biofilm Formation; Marine Fouling and Boring Organisms - their Biology, Adaptation; Factors Influencing the Settlement of Macrofoulers, Antifouling and Anti Boring Treatments, Corrosion Process and Control of Marine Structures

Unit 4

Bioactive Marine Natural Product (12 hrs.)

4. Collection and Identification of Marine Organism, Isolation, Screening and Identification of Pharmacological Bio Active Compounds, Commercial Development of Marine Natural Product
- 4.2 Biomedical Potential of Marine Products-Antiviral Substances, Antiparasitic Substances, Antitumor Substances, Anti-Inflammatory/Analgesic Compounds
- 4.3 Nutraceuticals- Development of Novel Foods and Food Ingredients, Low Calorie Sweeteners, Flavour Modifiers, Nutritional Enrichment - Food Supplements, Food Colouring Agents and Water Binding Agents
- 4.4 Biogenic Compounds from Marine Algae

Unit 5

Applications of Marine Biotechnology (12 hrs.)

- 5.1 Characteristics and Applications of GFP
- 5.2 Probiotics and their Importance in Aquaculture
- 5.3 Techniques for Identification of Bacterial and Viral Pathogen in Aquaculture
- 5.4 Gene Probes and their Applications in Disease Diagnosis
- 5.5 Chromosomal Manipulation of Commercially Important Marine Organisms, Transgenic Fishes with Growth Hormone (GH) and Antifreeze Genes, Transposon in Fishes
- 5.6 Vaccines for Aquaculture

TEXT BOOKS

Kim, Sen-kwon. *Hand book of marine biotechnology*. U.S.A.: Springer, 2015.

David H Atlway. *Marine biotechnology-Vol I. pharmaceutical and bioactive natural products*. U.S.A.: Springer, 2000

Fingerman M. Nagabhushanam R and Thompson M. *Recent Advances in Marine Biotechnology*.U.K.: Oxford, 1998.

BOOKS FOR REFERENCE

Bright Singh I. S. Somnath Pai S. Rosamma Philip and Mohan Das A. *Aquaculture Medicine*. Kochi: Paico, 2003.

David H. Attaway. Oskar R. and Zaborsky. *Marine Biotechnology volume 1: Pharmaceutical and Bioactive Natural Products*. U.S.A.: Springer, 1993.

Lee Y.K and Salminen S. *Handbook of probiotics and prebiotics*. U.S.A.: Wiley, 2009.

LeGal Y and Ulber R. *Advances in Biochemical Engineering/Biotechnology- Marine Biotechnology I & II*. U.S.A.: Springer, 2005.

JOURNALS

Journal of marine Biotechnology

Journal of Marine Science: Research and Development

Advances and New perspectives in Marine Biotechnology

WEB RESOURCES

www.marinebiotech.eu

www.ecmb.org/

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Group discussions

Debate

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

HUMAN GENETICS

CODE: 15BY/PE/HG34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To create an awareness on hereditary diseases and transmission of genes through families and population
- To give an insight into the current trends in the field of genetics

Unit 1

Basic Principles of Human Genetics (11 hrs.)

- 1.1 Human Genetics – History
- 1.2 Pedigrees- Gathering Family History- Pedigree Symbols-Construction of Pedigrees- Presentation of Molecular Genetic Data in Pedigrees
- 1.3 Patterns of Genetic Inheritance –Autosomal Recessive Inheritance, Autosomal Dominance Inheritance, Sex-Linked Inheritance, Multifactorial Inheritance-Blood Grouping

Unit 2

Cytogenetics (11 hrs.)

- 2.1 Cell Cycle and Cell Division
- 2.2 Human Karyotype- Banding- Nomenclature of Banding
- 2.3 Pathology of Human Chromosomes, Nomenclature of Aberrant Karyotypes
Structural and Numerical Chromosomal Aberration

Unit 3

Genetics in Medical Practice (10 hrs.)

- 3.1 Prenatal Diagnosis - Chorionic Villi Sampling - Foetoscopy, Ultrascopy - Amniocentesis
- 3.2 Postnatal Diagnosis- Peripheral Blood Leucocyte Culture, Sister Chromatid Exchange, Fragile Site, Mitotic Index
- 3.3 Genetic Counseling
- 3.4 Inborn Errors in Metabolism

Unit 4
Population Genetics (10 hrs.)
4.1 Population Genetics- Hardy-Weinberg Equilibrium-Natural Selection –Migration
4.2 Inbreeding and its Impact in the Society
4.3 Human Genome Project and its Significance

Unit 5
Gene Therapy and Cancer (10 hrs.)
5.1 Gene Therapy
5.2 Cancer-Tumour Suppressor Gene-Oncogenes- Molecular Basis of Oncogenesis-
Treatment for Cancer

TEXT BOOKS

Bruce R. Korf, Mira B. Irons. *Human Genetics and Genomics*. U.S.A.: Wiley-Blackwell, 2013.

Daniel L. Hartel and Elizabeth W. Johnes. *Essential Genetics - A Genomic Perspective*. U.S.A.: Jones and Bartleet, 2006.

Michael R. Cumming. *Human Hereditary - Principles and Issues*. U.S.A.: Cengag learning, 2010.

BOOKS FOR REFERENCE

Gangane S.D. *Human Genetics*. U.S.A.: Elsevier, 2012.

Hong Weng Deng, HuiShen, Yong-Jun Liu, Hai Hu. *Current Topics in Human Genetics*. U.K.: World Scientific, 2007.

Nussbaum RL, McInnes RR, Willard HF. Thompson & Thompson, *Genetics in Medicine*. U.S.A.: WB Saunders, 2004.

Ricki Lewis. *Human Genetics: Concepts and Applications*. U.S.A.: McGraw, 2009.

Rimoin DL, Connor JM, Pyeritz RE, Korf, B. Emery and Rimoin's. *Principles and Practices of Medical Genetics*. U.S.A.: Churchill, 2002.

Russ Hodge. *Human Genetics: Race, Population and Disease*. U.S.A.: Infobase, 2010.

Turnpenny P and Ellard S. *Emery's Elements of Medical Genetics*. U.S.A.: Churchill, 2007.

JOURNALS

American Journal of Human Genetics
Indian Journal of Human Genetics
Annals of Human Genetics

WEB RESOURCES

[https://www.genome.gov/
learn.genetics.utah.edu/](https://www.genome.gov/learn.genetics.utah.edu/)

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Open book test

Case study

Seminars

Group Discussion

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015- 2016)

ENVIRONMENTAL BIOTECHNOLOGY

CODE: 15BY/PE/ET14

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To gain better understanding of environment, its crisis and its remediation
- To create an awareness of current technology employed in environmental sustainability

Unit 1

Introduction to Environment (10 hrs.)

- 1.1 Microbial Flora of Soil, Ecological Adaptations, Interactions among Soil Microorganisms, Biogeochemical Role of Soil Microorganisms
- 1.2 Biodegradation, Microbiology of Degradation and its Mechanism, Bioaugmentation
- 1.3 Biosorption, Bioleaching, Bioremediation- Types of Bioremediation, Bioreactors for Bioremediation, Metabolic Pathways for Biodegradation for Specific Organic Pollutants

Unit 2

Types of Pollution (12 hrs.)

- 2.1 Pollution- Sources of Pollutants for Air, Water (ground water, marine), Noise, Land and its Characteristics- Pollution Control and Management- Environmental Monitoring and Sampling
- 2.2 Physical, Chemical and Biological Methods and Analysis- Air Pollution- Control and Treatment Strategies
- 2.3 Modes of Biological Treatment Methods for Wastewater- Aerobic Digestion, Anaerobic Digestion, Anoxic Digestion, the Activated Sludge Process
- 2.4 Design and Modeling of Activated Sludge Processes, Design of a Trickling Biological Filter, Design of Anaerobic Digester

Unit 3

Industrial Waste Management (10 hrs.)

- 3.1 Industrial Waste Management- Dairy, Paper and Pulp, Textile, Leather, Hospital and Pharmaceutical
- 3.2 E-waste- Radioactive and Nuclear Power Waste Management
- 3.3 Solid Waste Management

Unit 4

Recombinant DNA Technology Application in Environment (10 hrs.)

- 4.1 Molecular Biology Tools for Environmental Management, rDNA Technology in Waste Treatment

- 4.2 Genetically Modified Organisms in Waste Management
- 4.3 Genetic Sensors, Metagenomics, Bioprospecting, Nanoscience in Environmental Management, Phytoremediation for Heavy Metal Pollution, Biosensors Development to Monitor Pollution

Unit 5

Environmental Sustainability (10hrs.)

- 5.1 Alternate Source of Energy, Biomass as a Source of Energy, Biocomposting, Vermiculture, Biofertilizers, Organic farming, Biofuels
- 5.2 Biomineralization, Bioethanol and Biohydrogen, Bioelectricity through Microbial Fuel Cell
- 5.3 Energy Management and Safety

TEXT BOOKS

Bailey, J. E. and Ollis, D. F. *Biochemical Engineering Fundamentals*. New York: Mac Graw, 1986.

Chakrabarty K.D. Omen G.S. *Biotechnology And Biodegradation, Advances In Applied Biotechnology*. London: Gulf, 1989.

Forster, C. F and Waste, D.A. J. *Environmental Biotechnology*. U.S.A.: Ellis Horwood, 1987.

Ismail, S.A., *The Earthworm Book*. India: Other India, 2005.

Lutgarde Raskin. *In-situ Bioremediation*. U.S.A.: Naves, 1991.

Metcalf and Eddy. *Waste water Engineering Treatment, Disposal and Reuse*. U.S.A.: Mc Graw, 1991.

Mohapatra P.K. *Textbook of Environmental Biotechnology*. New Delhi: I.K. International, 2007.

Rana,S.V.S. *Environmental Biotechnology*. New Delhi: Rastogi, 2010.

Thankur, I.S.. *Environmental biotechnology – Basic concepts and applications*. New Delhi: IK International, 2006.

BOOKS FOR REFERENCE

Bhatia S.C. *Handbook of Environmental Biotechnology*., India: Atlantic, 2008.

Ismail S.A. *Vermitech (vermicompost and vermiwash)*. India: Ajju's wormery, 1996.

Kaushik, Anubha and Kaushik, C.P. *Perspectives in Environmental Studies*. New Delhi: New Age, 2007.

Stanier R.Y. Ingraham J.L. Wheelis M.L. Painter R.R. *General Microbiology*. U.S.A.: Mc Millan 1989.

Young Murray Moo. *Comprehensive Biotechnology*. U.S.A.: Elsevier Sciences, 1985.

APHA. *Standard Method for Examination of Water and Waste water*. American Public Health, 1985.

Martin A.M.. *Biological Degradation of Wastes*. New York: Elsevier, 1991.

Sayler, Gray S. Robert Fox and James W. Blackburn. *Environmental Biotechnology for Waste Treatment*. New York: Plenum Press, 1991.

Ritmann E .B. and Perry L. *Environmental Biotechnology: Principles and Applications*. U.S.A.: McGraw, 2001.

JOURNALS

Journal of petroleum and environmental Biotechnology

Microbial ecology and environmental Biotechnology

WEB RESOURCES

www.environmentalbiotech.com/

www.waterlooenvironmentalbiotechnology.com/

www.neeri.res.in/

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 Mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Open book test

Seminar

Group Discussion

Quiz

Working Models

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

BIO-NANOTECHNOLOGY

CODE :15BY/PE/BN14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To enable student to have a clear understanding of Bionanotechnology
- To have an additional dimension to the study of Bionanotechnology and its use to human welfare

Unit 1

Nanosystem

(10hrs.)

- 1.1 Definition of a Nano System -Dimensionality and Size Dependent Phenomena, Quantum Dots, Nanowires and Nanotubes, 2D Films
- 1.2 Nano and Mesopores – Size Dependent Variation in Magnetic, Electronic Transport, Reactivity
- 1.3 Synthesis and Characterizations of Nanoscale Materials
- 1.4 Strategies for Nano architecture (Top Down and Bottom up Approaches)
- 1.5 Fabrication Technologies and Characterizations, Self-assembly Systems
- 1.6 Nanofluidics, Surfactants, Polymers, Emulsions and Colloids

Unit 2

Nano Materials Preparation and Characterization

(11hrs.)

- 2.1 Basic Concepts of Nanostructured Materials –Nucleation- Surface Nucleation Growth – Grain Size Distribution – Nano Particle Transport in Low Density Media – Vapour Nano Phase Thermodynamics – Coagulation of Nano Particles, Determination of Grain Size – Aggregate Formation – Mass Fractal Morphologies, Film Deposition Methods- Sol-Gel Processing
- 2.2 New Forms of Carbon – Types of Nanotubes – Formation, Characteristics and Applications of Nanotubes- Quantum Dots and Wires, Gold Nanoparticles. Nanopores
- 2.3 Nanoparticle Synthesis in Plants, Bacteria, and Yeast
- 2.4 Characterisation of Nano Particles- Scanning Electron Microscopy, Transmission Electron Microscopy, Scanning Probe Microscopy, Atomic Force Microscopy, FTIR, Scanning Tunneling Microscope, Nuclear Magnetic Resonance Spectroscopy

Unit 3**Nanocarriers****(11hrs.)**

- 3.1 Nanoscale Devices for Drug Discovery -Application of Nano-biotechnology in Drug Delivery
- 3.2 Nanoparticle Flow, Implications for Drug Delivery – Polymeric Nanoparticles as Drug Carriers and Controlled Release Implant Devices
- 3.3 Micelles for Drug Delivery, Micro-array and Genome Chips
- 3.4 Genetic Vaccines, A Role for Liposomes, Polymer Micelles as Drug Carriers
- 3.5 Microemulsions as Drug Delivery Vehicles – Lipoproteins as Pharmaceutical Carriers, Solid Lipid Nanoparticles as Drug Carriers

Unit 4**Nanocapsules****(10hrs.)**

- 4.1 Nanocapsules- Preparation and Characterization
- 4.2 Therapeutic Applications – Dendrimers, Cochleates, Aerosols, Magnetic Nanoparticles as Drug Carriers
- 4.3 Nanoparticulate Drug Delivery to the Reticuloendothelial System, Cardiovascular System, Lungs, Brain, Gastro-Intestinal Tract
- 4.4 Nanoparticles and Microparticles as Vaccines Adjuvants

Unit 5**Nano-Medicine****(10hrs.)**

- 5.1 Bio-Pharmaceuticals – Implantable Materials – Implantable Devices –Surgical Aids – Diagnostic Tools – Genetic Testing
- 5.2 Nanoparticles Probe
- 5.3 Nanotechnology for Cancer Research and Therapy, siRNA, Tumor-Targeted Drug Delivery Systems
- 5.4 Nanotechnology for Imaging and Detection

TEXT BOOKS

Tuan Vo-Dinh. *Nanotechnology in Biology and Medicine: Methods, Devices and Applications*. London: Taylor and Francis, 2007.

Ratner, M. and Ratner, D. *Nanotechnology: A Gentle Introduction to the Next Big idea*. U.S.A.: Pearson, 2005.

Christef M. Niemeyer, C. A. Mirkin. *Nanobiotechnology: Concepts, Application and Properties*. New York: Wiley–VCH, 2004.

BOOKS FOR REFERENCE

Pradeep, T. *Nano*. New Delhi: Tata McGraw, 2006.

Jain, K.K. *Nanobiotechnology in Molecular Diagnostics: Current Techniques and Applications*. India: Horizon Biosciences, 2006.

Challa S.S.R and Kumar. *Biological pharmaceutical Nanomaterial*. Germany: Wiley, 2006.

Parag Diwan and Ashish Bharadwaj. *Nano Medicines*. U.S.A.: Pentagon, 2006.

Vladimir P. Torchilin. *Nanoparticulates as Drug Carriers*. U.S.A.: Imperial, 2006.

JOURNALS

Journal of Nanotechnology

International Journal of Nanotechnology

WEB RESOURCES

<http://www.zyvex.com/nano>

www.fda.gov/nanotechnology/

www.nature.com/nnano/

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – 10 x 1 = 10 Marks (All questions to be answered)

Section B – 2 x 10 = 20 Marks (2 out of 4 to be answered)

Section C – 1 x 20 = 20 Marks (1 out of 2 to be answered)

Third component

List of Evaluation modes:

Assignment

Seminar

Paper reviews

Quiz

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS

(Effective from the academic year 2015 - 2016)

BIOPHYSICS AND BIOINSTRUMENTATION

CODE: 15BY/PE/BB14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To emphasize the physical principles and theories underlying biological processes
- To acquire a fundamental knowledge of instruments and its applications

Unit 1

Introduction to Molecular Biophysics (11 hrs.)

- 1.1 Bioenergetic Principles- Concept of Energy- Thermodynamic Principles –Free Energy-Enthalpy-Entropy-Role of High Energy Phosphates- Energy Transduction
- 1.2 Structure, Conformation and Structural Polymorphism of Biomolecules-Proteins Carbohydrates and Nucleic Acids- Methods of Structural Elucidation of Biological Macromolecules- ^{13}C and ^1H NMR- X-ray Diffraction
- 1.3 Measurement of Transmittance and Absorbance – Beer's and Lamberts Law, Colorimetry, Spectrophotometry - UV Visible and Raman Spectroscopy, CD- ORD, Infrared, Fluorescence, ESR, Plasma Emission Spectroscopy, MALDI-TOF

Unit 2

Protein Biology (10 hrs.)

- 2.1 Ramachandran Plot, Protein Sequencing, Protein-Protein and Protein-Ligand Interactions-Protein Folding-Glycoprotein and Lipoprotein, Membrane Biophysics Structure and Dynamics of Biological Membranes, Signal Transduction Across Membranes, Nernst Equation
- 2.2 Membrane Potential-Biomechanics and Neurobiophysics, Macromolecular Interactions- Supramolecules

Unit 3

Separation Techniques (9 hrs.)

- 3.1 Centrifugation - Basic Principles of Sedimentation, Types of Rotors, Preparative and Analytical Ultracentrifugation
- 3.2 Chromatography - Definitions and General Principles, Gel Filtration, Affinity Chromatography, HPLC and FPLC, Ion-Exchange Chromatography, Supercritical Chromatography

Unit 4**Radiation Biology (10 hrs.)**

- 4.1 Stable and Radio-isotopes, Measurement of Radioactivity in Biological Samples- Gas Ionization (GM counter), Scintillation Counter, Autoradiography and Dosimeter
- 4.2 Radiation Units, Safety Aspects in Handling Radioactive Isotope
- 4.3 Application of Radioactive Isotopes in Biological Studies

Unit 5**Electrophoresis and Microscopy (12 hrs.)**

- 5.1 Electrophoresis - Basic Principles, Native- PAGE, SDS-PAGE, Isoelectric Focusing and 2 Dimensional Gels, Capillary Electrophoresis, Denaturing Agarose Gel Electrophoresis, Pulse-field Gel Electrophoresis, Mobility Shift Electrophoresis
- 5.2 Microscopy- Transmission and Scanning Electron Microscopy, Cryomicroscopy and Confocal Microscopy

TEXT BOOKS

Branden and Tooze. *Introduction to Protein Structure*. New York: Garland, 1999.

Creighton, Thomas. E. *Protein: Structure and Molecular Properties*. U.S.A: WH, 1996.

Skoog, D. A, Holler, J. F and Nieman, T. A. *Principles of Instrumental Analysis*. U.S.A.: Thomson, 2006.

Vasantha Pattabhi and Gautham N, *Biophysics* New Delhi: Narosa 2010.

Willard, H. H and Merrit, L. L. *Instrumental Methods of Analysis*. U.S.A.: Prentice Hall, 2005.

BOOKS FOR REFERENCE

Wilson, K and Walker, J. *Practical Biochemistry – Principles and Techniques*. U.S.A.: Cambridge, 2002.

Sambrook, J and Russell, D.W. *Molecular Cloning – A Laboratory Manual*. New York: ColdSpringHarbor, 2001.

Bozzola, John J. and Russel Lonnie D. *Electron Microscopy – Principles and Techniques for Biologist*. U.S.A.: Jones and Bartlett, 1992.

Herrit, Willard, Dean and Settle. *Instrumental Methods of Analysis*. U.S.A.: CBS, 1986.

Plummer, D.T. *An Introduction to Practical Biochemistry*. New Delhi: Tata McGraw – Hill, 1985.

Morris and Morris. *Separation Methods in Biochemistry*. London: Pitman, 1960.

JOURNALS

Journal of Biophysics
International Journal of Biophysics
International Journal of Instrumentation

WEB RESOURCES

www.biophysics.org/
www.medbio.utoronto.ca/
www.wiley.com
www.surface51.com

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third component:

List of Evaluation modes:

Assignment
Open book test
Quiz
Seminar

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

APPLICATIONS OF BIOTECHNOLOGY

CODE: 15BY/PE/AB24

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study various aspects of Biotechnology
- To understand the applications of Biotechnology in everyday life

Unit 1

Fermentation Technology (10 hrs.)

- 1.1 Fundamentals of Fermentation Technology- History of Fermentation Technology, Up Stream and Down Stream Processing
- 1.2 Applications of Enzymes in the Food Industry - Cheese, Bread, Wine, Beer and Meat
- 1.3 Enzyme and Antibiotic Production – Cellulase and Penicillin

Unit 2

Bioactive Compounds and Bioproducts (11 hrs.)

- 2.1 Biofertilizers and Vermicomposting
- 2.2 Importance of VAM Fungi, Mushroom Cultivation, Food Value of Edible Mushrooms
- 2.3 Biofuels- Ethanol Production and Biogas, Biodiesel, Petroplants and Algal Hydrocarbons

Unit 3

Applications of Genetic Engineering (11 hrs.)

- 3.1 Introduction to Cloning, Production of Transgenic Animals – Mouse, Fish, Poultry and other Mammals
- 3.2 Transgenic Plants for Crop Improvement- Herbicide and Insect Resistance Plantibodies and Edible Vaccines

Unit 4

Applications of Plant Tissue Culture (10 hrs.)

- 4.1 Tissue Culture-Overview, Synthetic Seeds
- 4.2 Applications in Agriculture (Herbal Products), Horticulture (Micropropagation), Floriculture (Ornamental Plants) and Pharmaceutical (Medical Compounds) Industry

Unit 5

Applications in Medicine

(10 hrs.)

- 5.1 DNA Fingerprinting in Forensic Science
- 5.2 Application of Vaccines
- 5.3 Application of Biosensors
- 5.4 Screening Tests for Genetic Diseases

TEXT BOOKS

Chawla, H.S. *Introduction to Plant Biotechnology*. India: Oxford, 2009.

Freshney, Ian R. *Culture of Animal Cells: A Manual of Basic Technique*. U.S.A.: Wiley, 2010.

Ismail, S.A., *The Earthworm Book*. India: Other India, 2005

Ismail, S.A., Seshadri, C.V., Jeeji Bai, N., and Suriyakumar, C.R. *Composting through Earthworms*. India: M.C.R.C., 1994.

Purohit, S.S. *Agricultural Biotechnology*. India: Agrobios, 2007.

Palmer, Trevor. *Enzymes : Biochemistry, Biotechnology and Clinical Chemistry*. U.S.A. : Horwood, 2004.

Slater, A. Scott, N and Fowler, M. *Plant Biotechnology*. U.S.A.: Oxford, 2003.

Patel, A.H. *Industrial Microbiology*. India: MacMillan, 1999.

Prescott and Dunn. *Industrial Microbiology*. U.S.A.: AVI, 1987.

BOOKS FOR REFERENCE

Demain, Arnold L., and Davies, Julian E. *Manual of Industrial Microbiology and Biotechnology*. U.S.A.: ASM, 2010.

Purohit, S.S and Mathur S.K. *Biotechnology – Fundamentals and Applications*. India: Agrobios, 2000.

Glick, B.R., and Pasternak, J.J. *Molecular Biotechnology – Principles and Applications of Recombinant DNA*. New Delhi: Panima, 1994.

JOURNALS

Journal of Animal science and Biotechnology
International Journal of animal Biotechnology
Journal of Plant Molecular Biology and Biotechnology
Plant Biotechnology Reports

WEB RESOURCES

www.jasbsci.com/

www.niab.org.in/

www.pb.ethz.ch/

www.nrcpb.org/

PATTERN OF EVALUATION

Continuous Assessment Test:

Total Marks: 50

Duration: 90 mins.

Section A – $10 \times 1 = 10$ Marks (All questions to be answered)

Section B – $2 \times 10 = 20$ Marks (2 out of 4 to be answered)

Section C – $1 \times 20 = 20$ Marks (1 out of 2 to be answered)

Third Component:

List of Evaluation modes:

Assignment

Quiz

Seminar

Debate

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

VIROLOGY

CODE: 15BY/PI/VR24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To provide an understanding on viruses and its molecular biology concepts
- To give an insight on human viral diseases

Unit 1

Introduction to Viruses

- 1.1 Definition of a Virus, Discovery, Virus Assay, Multiplication Cycle, Properties, Origin
- 1.2 Identification of Viruses Using Antibodies- Detection, Identification, Cloning of Virus Genome by PCR
- 1.3 Structure- Filamentous Viruses and Nucleoprotein, Structure of Isomeric, Enveloped, Tail-Head Morphology Viruses- Principles of Disassembly
- 1.4 Classification-Based on Disease, Host Organism, Virus Particle Morphology, Viral Nucleic acid (The Baltimore Scheme) and Taxonomy
- 1.5 Satellites, Virioids, Prions

Unit 2

Virus Growth in Cells

- 2.1 Virus Attachment and Entry into Cells-Nucleic Acid Synthesis-RNAsynthesis-Making Viral RNA
- 2.2 DNA-Genome Replication in DNA Virus-Transcription-Reverse Transcription
- 2.3 Transcription and RNA Processing-Processing Viral RNA-translation, Virion Assembly

Unit 3

Virus Interaction with Host Organisms

- 3.1 Virus Interaction- Viruses and Immune System
- 3.2 Interaction between Animal Viruses and Cells- Acutely Cytopathic Infection- Persistence, Latent, Transforming, Abortive, Null Infections
- 3.3 Animal Virus-Host Interaction- Classification-Acute, Subclinical, Persistent, Chronic, Latent Infection, Plant virus
- 3.4 Mechanism of Virus Latency- Interaction-Gene Expression
- 3.5 Transmission of Viruses- Horizontal, Vertical, Zoonoses
- 3.6 Vaccines and Antivirals- Peptide, Genetically Engineered Vaccines-Prophylaxis and Therapy with Antiviral Drugs

Unit 4

Viruses and Diseases

4.1 Viruses and Diseases- Human Viral Diseases-Human Viral Pathogens-Common Signs, Symptoms of Viral Infection-Gastrointestinal, Respiratory, Liver Infection, Systemic Spread

4.2 HIV and AIDS-Biology and Transmission, Course of Infection, Immunological Abnormalities, prevention and control

4.3 Carcinogenesis and Tumor Viruses-Polyomaviruses, Papillomaviruses, Adenoviruses, Retroviruses, Herpesviruses, Hepatitisviruses

4.4 Prion Diseases- Spectrum of Disease, Etiology, Pathogenesis, Bovine Spongiform Encephalopathy, Creutzfeldt-Jakob Disease

Unit 5

New Emerging Viruses

5.1 Evolution and Emergence-Viral Evolution

5.2 Emerging Viruses- Viruses and the Tree of Life, The Abundant and Diverse Viruses of the Seas

5.3 Chikungunya- An Exotic Virus on the Move-Lujo Virus, a New Hemorrhagic Fever Virus from Southern Africa

5.4 The Error-Prone ways of RNA synthesis

5.5 The Quasispecies Concept-Viral Quasispecies and Bottlenecks-the Number of Possible Viral Variants

5.6 The Trajectory of Evolution. Virulence - A Positive or Negative Trait for Evolution

BOOKS FOR REFERENCE

Flint S.J, Enquist L.W, Racaniello V.R and Skalka A.M. *Principles of Virology*. U.S.A.: ASM, 2014.

Teri Shors. *Understanding Viruses*. U.S.A.: Jones and Bartlett, 2009.

Dimmock N.J, Easton A.J and Leppard K.N. *Introduction to Modern Virology*. U.S.A.: Blackwell, 2007.

JOURNALS

Journal of Virology and Antiviral Research

American Journal of Virology

Journal of Virology

WEB RESOURCES

www.virology.net/

<https://www.coursera.org/course/virology>

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks (All questions to be answered)

Section B – $4 \times 10 = 40$ Marks (4 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE: BIOTECHNOLOGY

SYLLABUS
(Effective from the academic year 2015 - 2016)

MOLECULAR ONCOLOGY

CODE: 15BY/PI/MO24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To introduce the basic concepts of Oncology
- To understand the recent developments in the field of Molecular Oncology

Unit 1

Introduction

- 1.1 Cell proliferation, Cell Cycle- Check Points, Genes Regulating the Cell Cycle
- 1.2 Differentiation, Apoptosis- Caspases, Senescence
- 1.3 Types of Cancer, Causes of Cancer- The Influence of Environment, Obesity, Estrogen
- 1.4 Oncogene and Tumour Suppressor Genes- Mutation, Genetic and Epigenetic Alteration, Multi –Step Carcinogenesis, Transformed Phenotype, Tumour Suppressor Genes

Unit 2

Mechanisms

- 2.1 Signal Transduction Pathway in Cancer- Receptor Tyrosine Kinase, RAS-MAP kinase, P13k-Akt Signaling, Classical and Alternative –NF-KB Pathway, JAK-STAT Pathway, FAK Src, Bax, Bcl-2
- 2.2 Metastasis, Primary Tumour, Micro Environment, Angiogenesis, Invasion, Epithelial Mesenchymal Transition, Extra Vacation, Tumour Establishment, Apoptosis, Tumour Dormancy

Unit 3

Cancer Immunology

- 3.1 Inflammation-Immuno Editing, Immuno Tolerance, Escape, Immuno Suppression, T-Regulatory Cells, Dysfunctional Dendritic Cells, Tumour Antigen, Adoptive T-Cell Immunotherapy, Novel, Combinatorial Therapy
- 3.2 Molecular Diagnosis and Prognosis- Biomarkers, PCR-Antigen, Chromosomal Translocation, ImmunoHistochemistry, Oncogenomics, Oncoproteomics

Unit 4

***In vitro* and *In vivo* Studies**

- 4.1 *In vitro* and *in vivo* Models for Cancer Research, Carcinogenesis
- 4.2 Cell Culture-Transgenic Mice, DNA Damage-Chemical Carcinogen, Metabolic Activation, Cytochrome 450, Solid Tumour, DNA Transfection, Gene Silencing, RNAi.

Unit 5

Cancer Treatment

- 5.1 Chemotherapy and Design of Antineoplastic Compounds - Medical Chemistry, Drug Design, Development, Bioinorganic Chemistry, Metal and Copper Compounds, Antineoplastics-Cisplatin
- 5.2 Mechanism of Therapy- Multi – Drug Resistance, ABC Transporters, Tamoxifen, Antibody, EGFR Mutation
- 5.3 Future of Cancer Research- Epidemiological Studies, Pharmacology-Epidemiology, Cancer Prevention, Early Markers, Personalised Therapy, Clinical Trial, Mutation, Etiological Factors

BOOKS FOR REFERENCE

Javier Camacho. *Molecular oncology: Principle and Recent Advances*. U.S.A.: Bentham science, 2012.

Bronchud M.H, Footy M.A., Giaccone G., Olopade O. and Workman P. *Principles of Molecular Oncology*. U.S.A.: Humana, 2004.

JOURNALS

Journal of clinical oncology.
Journal of oncology.

WEB RESOURCES

www.asco.org/
www.esno.org/

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered)

Section B – 4 x 10 = 40 Marks (4 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 4 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ORGANIC CHEMISTRY-I

CODE: 15CH/PC/OC14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the importance of the nomenclature of different types of organic compounds and their usage in various reactions
- To enable students to gain knowledge on the various aspects of stereochemistry and to emphasize the importance of stereochemistry in different types of reaction mechanisms
- To understand the methods adopted in the study of reaction mechanisms

Unit 1

Nomenclature of Organic Compounds and Aromaticity (10 hrs.)

- 1.1 Modern Nomenclature – Cyclic, Acyclic, Aliphatic, Aromatic, Bridged and Heterocyclic Compounds
- 1.2 Huckel's Rule of Aromaticity, Antiaromaticity, Aromaticity in Annulenes, Diatropic and Paratropic behaviour (in NMR).
- 1.3 Benzenoid and Non-Benzenoid Aromatics, Homo Aromatic and Pseudoaromatic Compounds
- 1.4 Aromaticity in Heteroannulenes and Fullerenes

Unit 2

Stereochemistry

(18 hrs.)

- 2.1 Concept of Optical Activity, Chirality, Asymmetry and Dissymmetry. Optical Activity of Allenes, Biphenyls, Spiro Compounds, Cyclobutane, Cyclononane and Molecules with Helical Structures
- 2.2 Absolute Configuration -D/L and R/S Nomenclature, Assigning R/S Nomenclature to Biphenyls, Allenes and Spiro Compounds, CIP Conventions. Molecules with more than one Asymmetric Centre - Erythro and Threo Nomenclature. Interconversion of Fischer, Sawhorse and Newmann Projection
- 2.3 Geometrical Isomerism- E-Z Nomenclature of Olefins. Geometrical and Optical Isomerism of Disubstituted Cyclopropane, Cyclobutane and Cyclopentanes. Identification of Enantiotopic, Homotopic, Diastereotopic Hydrogens and Prochiral Carbons in Compounds Containing a Maximum of Ten Carbon Atoms only
- 2.4 Asymmetric Synthesis- Cram's and Prelog's Rules, Chiral Auxiliaries – Evans Aldol Reaction, Chiral Reagents. Epoxidation (Sharpless' Reaction)
- 2.5 Stereospecific and Stereoselective Reactions- Syn and Anti (Addition and Elimination)

Unit 3

Conformations and Conformational Analysis

(12 hrs.)

- 3.1 Conformation and Reactivity in Cyclic Systems - Cyclobutane, Cyclopentane, Cyclohexane, Cycloheptane and Cyclooctane
- 3.2 Conformational Analysis of Disubstituted Cyclohexanes and their Stereochemical features. Conformation and Reactivity of Cyclohexanols (Oxidation and Acylation), Cyclohexanones (Reduction) and Cyclohexane Carboxylic Acid Derivatives (Hydrolysis)
- 3.3 Conformation and Stereochemistry of Fused Ring System-Decalins (9 Methyldecalin)

Unit 4

Study of Reaction Mechanisms (15 hrs.)

- 4.1 Thermodynamic and Kinetic Requirements of Reactions, Energy Profile Diagrams, Intermediate vs Transition State. Hammond Postulates. Curtin-Hammett Principle
- 4.2 Methods of Determining Reaction Mechanisms-Identification of Products and Intermediates, Cross-Over Experiments, Trapping of Intermediates, Isotopic Labeling, Stereochemical Studies. Kinetic Methods- Kinetic Isotopic Effects, Salt Effects, Solvent Effects-Solvent Isotopic Effects

Unit 5

Structural Effects and Chemical Reactivity (10 hrs.)

- 5.1 Correlation of Structure with Reactivity. Inductive, Mesomeric, Steric Effects and Steric Inhibition of Resonance
- 5.2 Quantitative Relationships between Molecular Structure and Chemical Reactivity- Linear Free Energy Relationship - Hammett Equation, Taft Equation, Acidity of Carboxylic Acids and Phenols, Basicity of Aliphatic and Aromatic Bases

TEXT BOOKS

- Ahuliwalia V.K. and R.K. Parashar. *Organic Reaction Mechanism*. New Delhi : Narosa, 2002.
- Eliel E.L. *Stereochemistry of Organic Compounds*. New York : John Wiley, 2003.
- Singh, Jagadamba and L.D.S. Yadav. *Advanced Organic Chemistry*. Meerut : Pragati Prakashan, 2010.
- Kalsi P.S. *Stereochemistry*. New Delhi: New Age, 2006.

BOOKS FOR REFERENCE

- Jonathan Clayden, Nick Greeves and Stuart Warren, *Organic Chemistry*, New York : Oxford University Press, 2012.
- Francis A. Carey and Richard J. Sundberg, *Advanced Organic Chemistry Part A: Structure and Mechanisms*. New York : Springer, 2007.
- Norman, R.O.C. and J.M. Coxon, *Principles of Organic Synthesis*. New York: CRC Press 2012.
- Buxton, S.R. and Roberts S.M. *Guide to Organic Stereo Chemistry*, London: Orient Longman, 1997.
- Solomons, T.W. Graham. and Craig B. Fryhle. *Organic Chemistry*. New York: John Wiley, 2000.
- Nasipuri D. *Stereochemistry of Organic Compounds – Principles and Applications*, New Delhi: Wiley Eastern, 1992.

BansalRaj.K.*Organic Reaction Mechanism*.New Delhi:Tata McGraw-Hill,2006.

JOURNALS

Tetrahedron letters

Journal of American Chemical Society

Journal of Stereochemistry

WEB RESOURCES

www.oxfordtextbooks.co.uk/orc/clayden2e

www.organic-chemistry.org/reactions.htm

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks

(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks

(3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks

(1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ADVANCED PHYSICAL CHEMISTRY

CODE: 15CH/PC/PC14

CREDITS: 4

LT P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To learn to integrate thermodynamics with quantum statistics
- To appreciate and correlate theoretical concepts and experimental details
- To realize the importance of kinetics of chemical transformations and reactions
- To learn the theories of electrolysis
- To encourage a problem solving approach to learning

Unit 1

Statistical Thermodynamics

(18 hrs.)

- 1.1 Introduction to Statistical Mechanics (Permutation, Probability), Microstates, Distributions and the most Probable Distribution, Evaluation of Boltzmann Parameters using Lagrange's Method of Undetermined Multipliers, Stirling Approximation
- 1.2 Partition Function, Evaluation of Translational, Rotational, Vibrational and Electronic Partition Functions for Ideal Gases, n Particles (Distinguishable and Indistinguishable) Systems
- 1.3 Applications: Calculation of Thermodynamic Properties in terms of Partition Function, Heat Capacities of Ideal Gases, Heat Capacity of Solids, Residual Entropies, Equilibrium Constant

Unit 2

Quantum Statistics

(10 hrs.)

- 2.1 Bose-Einstein and Fermi-Dirac Statistics, Comparison between Bose-Einstein, Fermi-Dirac and Boltzmann Statistics, Application to Radiation and Electron Gas in Metals
- 2.2 Irreversible Processes Relating to Mass, Electricity and Heat Exchanges between two Homogenous Isotropic Phases, Phenomenological Equations and Onsager Reciprocity Relation

Unit 3

Molecules in Motion

(15 hrs.)

- 3.1 Accounting for Rate Laws: Simple Reactions, Temperature Dependent on Reaction Rates, Consecutive Reactions (Rate Determining Step Approximation and Steady State Approximation), Pre-Equilibria and Unimolecular Reactions- Lindemann-Hinshelwood Mechanism, Kinetics of Complex Reactions- Chain Reactions, Polymerization Reactions, Explosions and Photochemical Reactions
- 3.2 Molecular Reaction Dynamics: Collision Theory, Steric Factor, Diffusion controlled reactions, Activated Complex Theory, Eyring Equation, Reaction Coordinates and Transition State, Thermodynamic aspects, Reaction between Ions, Effect of Solvent on Reaction Rates,

Effect of Ionic Strength on Reaction Rates (Salt Effects), Dynamics of Molecular Collisions (Molecular Beams), Potential Energy Surfaces

Unit 4

Theories of Electrochemistry (14 hrs.)

4.1 Electrodes and Electrochemical Cells-Evaluation of Thermodynamic Quantities

4.2 The Electrical Double Layer at the Electrode – Electrolyte Interface, Models:Helmholtz PerrinModel, Gouy-ChapmannModel and Stern Model, Potentials (Galvanic and Voltaic) – Theory of Multiple Layer Capacity – Electro- Capillarity – Lippmann Potential – Structure of Double Layers

4.3 Diffusion – Electro Kinetic Phenomena (Electroosmosis, Sedimentation Potential, Electrophoresis, Dorn Effect) – Membrane Potential .I – E Variation –Different Types ofOverpotentials – Butler – VolmerEquation for One Electron Transfer (derivation not required) TafelPlots, Exchange Current Density – Standard Rate Constants – Transfer Coefficient – Tafeland Nernst Equations – Polarisation. Rate Determining Step in Electrode Kinetics – The Hydrogen Overvoltage, Oxygen Overvoltage – Anodic and Cathodic Processes – Redox Reactions, Oxygen-Hydrogen Fuel Cells

Unit 5

Surface Chemistry (8 hrs.)

5.1 Adsorption Isotherms, Types of Adsorption Isotherms, Gibb's Adsorption Isotherm, BET Isotherm (Only Equation) - Determination of Surface Area

5.2 Heterogeneous Catalysis: Catalytic Activity at Surfaces, Adsorption and Catalysis-The Eley-RidealMechanism, Langmuir- Hinshelwood Mechanism, Molecular Beam studies, Examples of Catalysis- Hydrogenation, Oxidation, Cracking /Pyrolysis and Reforming

TEXTBOOKS

Castellan, G.W. *Physical Chemistry*.New Delhi: Addison – Wesley / Narosa, 2004.

Peter Atkins and Jolio de Paula.*Atkins Physical Chemistry*.Oxford :Oxford Press, 2002

BOOKS FORREFERENCE

Crow, D.R. *Principles and Applications of Electrochemistry*. New York: CRC Press, 1994.

Nash, K. *Elements of Statistical Thermodynamics*.New York:Dover, 2012.

Gupta,M.C.*Statistical Thermodynamics*, New Delhi:New Age International, 2003.

Dole, M. *AnIntroduction of Statistical Thermodynamics*, New York: Dover, 1986.

Rajaram J. and Kuriacose J.C. *Kinetics and Mechanism of Chemical Transformations*.New Delhi :Macmillan ,1993.

Kaufmann, E.D. *Advanced Concepts in Physical Chemistry*, New York :McGraw Hill,1966.

Hasse, R.*Thermodynamics of Irreversible Processes*, London: Addison Wesley, 1969.

Barrow Gordon, M. *Physical Chemistry*, Orient Longman :New York, 1977.

Viswanathan B., Sundaram S., Venkataraman R., Rengarajan K., Raghavan P.S. *Electrochemistry– Principles and Applications*, Chennai :Viswanathan ,2007.

Chandler, D. *Introduction to Modern Statistical Mechanics*, Oxford: Oxford University Press, 1997.

McQuarrie, D.A. and Simon, J.D. *Molecular Thermodynamics*, Sausalito: University Science, 1999.

Adamson A.W. and Gast, A.P. *Physical Chemistry of Surfaces*, New York: Wiley, 1997.

Lim, Y.K. *Problems and Solutions on Thermodynamics and Statistical Mechanics*, Singapore: World Scientific, 1990.

JOURNALS

Journal of Electrochemistry

Journal of Surface Science

Journal of Physical Chemistry (A, B and C)

Langmuir

Statistical Thermodynamics

WEB RESOURCES

<http://www.acs.org/content/acs/en/careers/college-to-career/areas-of-chemistry/physical-chemistry.html>

<http://www.annualreviews.org/journal/physchem>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Problem Solving

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

QUESTION PAPER PATTERN

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

STRUCTURAL INORGANIC CHEMISTRY

CODE: 15CH/PC/SI14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide knowledge required to appreciate and analyse the chemistry of structurally important compounds
- To give an overview and understanding of transition metal compounds and organometallic compounds
- To provide fundamental knowledge about industrially important non-transition metal compounds

Unit 1

Structure and Defects in Solids

(14 hrs.)

- 1.1 Lattice Energy, Born Lande Equation, Packing of Ions in Crystals, % Void, Crystal Imperfections – Stoichiometric Defects (Schottky, Frenkel) and Non-Stoichiometric Defects (F Center), Problems related to Defects, Conductivity by Ion Migration, Factors Affecting Crystal Structures
- 1.2 Structures of Simple Inorganic Solids of Type AX, AX₂, A₂X₃, Perovskite, Spinel and Inverse Spinels
- 1.3 Bonding in Metals: Band Theory and Metallic Properties. Interstitial Compounds, Insulators, Semi Conductors and Super Conductors. Super Conductivity-Principle, Meissner Effect
- 1.4 Electrical Properties of Solids- Dielectric, Ferroelectric, Pyroelectric and Piezoelectric Properties and Relation between Pyro, Piezo and Ferroelectric Properties. Magnetic Properties of Solids-Curie-Weiss Law

Unit 2

Techniques of Structure Determination in Solid State

(8 hrs.)

- 2.1 X-Ray Diffraction Studies - Structural Determination of NaCl using Powder Method.
- 2.2 Electron and Neutron Diffraction Studies- Principles and Applications

Unit 3

Structure and Chemistry of Organometallic Compounds

(18 hrs.)

- 3.1 Classification of Organometallic Compounds
- 3.2 Preparation, Bonding and Structure of Metal Carbonyls, Metal Nitrosyls (Application of EAN Rule and 18-Electron Rule) and Metal Hydride Complexes. Alkyl Complexes, Carbenes, Carbynes, Carbides, Non Aromatic Alkene and Alkyne complexes, Allyl and Pentadienyl Complexes, Aryl Complexes, Carbonyl Hydride Complexes, Triphenyl Phosphine and Dinitrogen Complexes
- 3.3 Application of IR Spectroscopic Technique to the Study of the Structure of Metal Carbonyls and Nitrosyls
- 3.4 Molecular Orbital Treatment of Metallocenes -Ferrocene

Unit 4

Organometallic Compounds in Catalysis

(12 hrs.)

4.1 Olefins-Wilkinson's Catalyst, Oxo Process, Ziegler-Natta Catalysis, Wacker Process, Cyclo-oligomerisation (Reppé's Catalyst).

4.2 Role of Catalyst in Monsanto Acetic Acid Process and in the Synthesis of Gasoline

Unit 5

Structure and Chemistry of Non-transition and Transition Metals

(13 hrs.)

5.1 Preparation, Properties and Structures of Boranes (Wade's Rules), Phosphazenes, Carboranes, Metallocarboranes, Silicates and Silicones, Supramolecular Assembly-Zeolites.

5.2 Preparation, Properties and Structures of iso and heteropolyacids of Mo and W.

TEXTBOOKS

Cotton, F.A. and Wilkinson G. *Advanced Inorganic Chemistry*, New York : John Wiley, 2000.

Huheey, James E. and Keiter, Ellen A. *Inorganic Chemistry - Principles of Structure and Reactivity*, New York: Addison Wesley, 2004.

BOOKS FOR REFERENCE

Atkins, Peter, Fraser Armstrong, Jonathan Rourke, Mark Weller and Tina Overton, *Inorganic Chemistry*, Oxford: Oxford Press, 2010

Jolly, W.L. *Modern Inorganic Chemistry*, New York : McGraw Hill, 1994.

Moeller, T. *Inorganic Chemistry*, New York: John Wiley, 1982.

Purcell Keith, F. and John C. Kotz, *An Introduction to Inorganic Chemistry*, Philadelphia: W.B. Saunders Company, 1982.

Wells, A.F. *Structural Inorganic Chemistry*, London: ELBS, 1981.

West, A.R. *Solid State Chemistry and its Applications*, New York: John Wiley, 2014.

JOURNALS

Journal of Inorganic Chemistry

Journal of Organometallic Chemistry

International Journal of Inorganic Chemistry

Inorganic Chemistry Frontiers

WEB RESOURCES

<http://www.chem.iitb.ac.in/~rmv/ch102/ic6.pdf>

<https://www2.chemistry.msu.edu/faculty/reusch/virttxtjml/orgmetal.htm>

<http://www.tandfonline.com/toc/gcic20/current#.VQL8TnyUflg>

<http://www.sciencedirect.com/science/bookseries/08988838>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – $11 \times 1 = 11$ Marks

(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – $3 \times 8 = 24$ Marks (3 out of 4 to be answered)

Section C – $1 \times 15 = 15$ Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – $20 \times 1 = 20$ Marks

(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – $5 \times 8 = 40$ Marks (5 out of 7 to be answered)

Section C – $2 \times 20 = 40$ Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

PHYSICAL CHEMISTRY – PRACTICAL

CODE: 15CH/PC/P112

CREDITS: 2

L T P: 0 0 3

TOTAL HOURS: 39

Unit 1

Phase Rule

Three Component System (Water-Toluene- Acetic Acid)

Unit 2

Solubility Product

Variation of the Solubility of (Calcium Sulphate /Zinc Sulphate/ Nickel Sulphate) with Ionic Strength and Determination of the Thermodynamic Solubility Product (Complexometric Titration with EDTA)

Unit 3

Chemical Kinetics

1. Effect of Ionic Strength on the Reaction Rate: Persulphate and Potassium Iodide Reaction
2. Kinetics of Hydrolysis of t-Butyl Chloride (by Conductometric Measurements)

Unit 4

Viscometry

Determination of Relative Molecular Mass / Intrinsic Viscosity of Polystyrene from Viscosity Measurements

Unit 5

Partial Molal Quantities

Determination of Partial Molal Volume of Methanol in Dilute Aqueous Solutions (by Method of Intercepts)

Unit 6

Conductometry

1. Determination of Critical Micelle Concentration Conductometrically.
2. Titration of Mixture of Three Acid (Trichloroacetic Acid, Dichloroacetic Acid and Acetic Acid) Conductometrically

Unit 7

pHmetry

Determination of pK_a Values of Glycine /Malonic Acid / Phosphoric Acid Potentiometrically using Glass Electrode

BOOKS FOR REFERENCE

Viswanathan, B. and Raghavan, P.S. *Practical Physical Chemistry*. New Delhi: Viva Books, 2005.

Venkateswaran, V. Veerasamy, R. Kulandaivelu, A. R. *Principles of Practical Chemistry*. New Delhi : Sultan Chand , 1997.

Findlay, Alexander, *Practical Physical Chemistry*. London: Longman Green, 1973.

END SEMESTER EXAMINATION :

Total Marks: 50

Duration : 3 hours

Procedure = 10 (marks)

Vivavoce = 10 (marks)

Reported value = 30 (marks)

CONTINUOUS ASSESSMENT (INTERNAL):

Total Marks : 50

Class Work = 30 (marks) – inclusive of viva

CA Test = 20 (marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

INORGANIC QUALITATIVE AND QUANTITATIVE ANALYSIS -PRACTICAL

CODE :15CH/PC/P214

CREDITS: 4

L T P: 0 0 6

TOTAL HOURS: 78

Unit 1

Semimicro Qualitative Analysis

Analysis of four cations- two rare cations and two common cations- in a salt mixture.

Unit 2

Quantitative Analysis

Complexometry : Estimation of Mg^{2+} , Zn^{2+} , Ca^{2+} and Ni^{2+}

Cerimetry : Estimation of Fe^{2+} / Oxalic acid

Determination of Chlorine in bleaching powder.

Unit3

Preparation of Inorganic Complexes

Tetraammine copper (II) sulphate

Tris (thiourea) copper (I) sulphate

Hexaammine cobalt (III) chloride

Bis (acetylacetonato) copper (II) / Bis (acetylacetonato) nickel (II)

A comprehensive viva will be conducted during the practical hours

BOOKS FOR REFERENCE

Ramanujam, V.V. *Inorganic Semimicro Qualitative Analysis*. Chennai: National, 1995.

MendhamJ., Denny R.C., Barnes J.D and Thomas M. *Vogel's Text Book of Quantitative Chemical Analysis*, London: Pearson Education, 2002.

END SEMESTER EXAMINATION

Total Marks : 100

Duration: 6 hours

Inorganic complex preparation : 10 Marks

Preparation – quantity & quality [10]

Semi micro qualitative analysis : 40 Marks

General Procedure- 10 Marks Rare radicals (2 X 10) -20 Marks

Common radicals – (2 X 5) - 10 Marks

Volumetric Analysis : 40 Marks

Error 1% = 40 Marks

2% = 35 Marks

3% = 25 Marks

Viva : 10 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

RESEARCH METHODOLOGY

CODE: 15CH/PE/RM14

CREDITS: 4

L T P: 2 0 2

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide an awareness about the developing avenues in Chemistry
- To give training in seminars, group work, communication and thesis writing
- To equip the students in using computing techniques in solving problems, to visualise and draw the molecules
- To enable the students to simulate spectral data for the given molecules using online data

Unit 1

Chemical Literature

(7 hrs.)

- 1.1 Sources of Chemical Information – Primary, Secondary and Tertiary Sources
- 1.2 Indexes and Abstracts in Science and Technology. Chemical Abstracts, Chemical Titles, Current Chemical Reactions, Current Chemical Contents Science Citation Index and Impact Factor.
- 1.3 Online Literature Search- Sci Finder and Science Direct

Unit 2

Research Reports and Thesis Writing

(8 hrs.)

- 2.1 The Art of Scientific Writing – Forms of Scientific Writing, Research Reports, Theses, Journals Articles and Books
- 2.2 Format of Research Report- Chemical Nomenclature, Quantities, Figures, Tables, Footnotes / Notes, Heading, Pagination, Citations& Bibliography, Proof Reading
- 2.3 Plagiarism, Copyright and Patent Laws

Unit 3*

Topics on New Frontiers in Chemistry

(15 hrs.)

- 3.1 Chemistry and Nature - Green Chemistry, Astrochemistry, Herbal Chemistry, Phytochemistry
- 3.2 Synthetic Chemistry - Medicinal Chemistry, Supra Molecular Chemistry, Macrocyclic Chemistry
- 3.3 Material Science - Nanotechnology, Nano Clusters, NanoDendrimers, Photo Electronics,Cheminformatics

Unit 4

(12 hrs.)

MS Excel and Mathematical Concepts in Chemistry

- 4.1 Components ofExcel – Spreadsheets, Database, Chart and Building up Workbooks
- 4.2 Building Formulae User Mode and Statistical Functions, Formatting Cells
- 4.3 Managing and Organizing Data - Creating Link, Analyzing Data
- 4.4 Plotting Data - Evaluation of Analytical Functions, Transferring Data and Graph Interpretation

- 4.5 Solving Problems from Physical and Analytical Chemistry (Statistical Problems)
4.6 Simple Functions and Graphs, Plotting Exercises on Most Useful Functions in Chemistry-The Exponential, The Gaussian, Polynomial Functions used in Chemistry

Unit 5 (10 hrs.)

Computational Techniques in Chemistry

- 5.1 Chemdraw-Writing Chemical Equation Schemes using Software, Editing, Transporting Picture to Word Document
5.2 Building Molecules, Measurement of Bond Angles, Bond Energy and Bond Length
5.3 Energy Minimization Techniques- Basic Concepts and Simple Applications to Geometry and Molecular Properties such as Dipole Moments and Thermochemical Properties
5.4 Use of Internet in Chemical Research-Spectral, Data Simulated Results from Web Sources

*Unit 3- Seminar Presentation – tested internally

TEXT BOOKS

Gopalan, R. *Thesis Writing*. Chennai: Vijay Nicole Imprints, 2005.

BOOKS FOR REFERENCE

Christopher J. Cramer. *Essentials of Computational Chemistry Theories and Models*, New York: Wiley, 2004.

Johnson, K.J. *Numerical Methods in Chemistry*, New York: Marcel Dekkar, 1980.

Leach A. R. *Molecular Modeling Principles and Practice*, New York: Prentice-Hall, 2001.

Lewars, Errol. *Computational Chemistry-Introduction to the Theory and Applications of Molecular and Quantum Chemistry*, New York: First Education Springer, 2006.

Janet C. Dodds, *The ACS Style Guide – A Manual for Authors and Editors*, American Chemical Society, 2006.

March Jerry, *Advanced Organic Chemistry*, New York: Wiley Interscience, 2007.

Softwares

Drawing and Nomenclature-ChemDraw Net Plugin, ChemInnovation

JOURNALS

Journal of American Chemical Society

Journal of Catalysis

Macromolecules

Nanoletters

Nature

Journal of Physical Chemistry (A, B & C)

Journal of Organic Chemistry

WEB RESOURCES

http://www.ndsu.nodak.edu/qsar_soc/resource/software.htm

<http://www.sciencedirect.com/>

<http://ww42.scifinder.com/>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Theory - 45 minutes - 25 marks (Units 1 & 2)

Section A – 5 x 2 = 10 Marks

(5 out of 7 to be answered)

Section B – 3 x 5 = 15 Marks

(3 out of 4 to be answered)

Practical - 45 minutes - 25 marks (Units 4 & 5)

Third Component:

List of evaluation modes:

Quiz

Seminars

Problem Solving

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

QUESTION PAPER PATTERN

Theory - 1½ hours - 50 marks (Unit 1, 2, 4 and Unit 5)

Section A – 10 x 2 = 20 Marks

(10 out of 12 to be answered)

Section B – 5 x 6 = 30 Marks

(5 out of 7 to be answered)

Practical - 1½ hour – 50 marks (Unit 4 and Unit 5)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

INDUSTRIAL WASTE MANAGEMENT

CODE: 15CH/PE/IM14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To provide students with an understanding of the present environmental scenario and educate them on the causes and consequences of environmental degradation
- To create an understanding of the nature of industrial wastes
- To work towards effective and efficient management of the industrial wastes
- To give an overview of Environmental Management , Environmental Impact Assessment and Pollution Control measures for working towards Green Earth

Unit 1

Air Pollution Control (10 hrs.)

- 1.1 Air Quality Standards, Classification of Air Pollutants, Sources of Air Pollution, Ozone Depletion, Green House Effect – Causes and Consequences
- 1.2 Pollution Control of Particulates – Gravity Settling Chamber, Cyclone Collector, Filters, Wet Scrubbers, Electrostatic Filters, Electrostatic Precipitator
- 1.3 Control of CO, Oxides of Nitrogen, Oxides of Sulphur, Hydrocarbons, Photochemical Pollutants, Green House Gases

Unit 2

Treatment and Disposal of Industrial Effluents (12 hrs.)

- 2.1 Water Quality Standards, Sources of Water Pollution, Characterization of Waste Water by Physical and Chemical Characteristics
- 2.2 Primary Treatment - Sedimentation, Neutralization, Coagulation, Equalization, Grid Removal Secondary Treatment: Aerobic Treatment, Oxidation Ponds, Oxidation Ditches, Trickling Filters, Activated Sludge Process, Aerated Lagoons, Anaerobic Treatment Tertiary Treatment: Reverse Osmosis, Electro Dialysis, Desalination
- 2.3 Industrial Effluents: Characteristics and Treatment Options for Effluents from various Industries: Textiles and Dyes, Paper and Pulp , Leather , Food and Dairy, Fertilizers, Electroplating Industries, Distilleries
- 2.4 Sewage Treatment
- 2.5 Water Conservation, Recycling of Waste Water and Rain Water Harvesting

Unit 3

Solid Waste Management (10 hrs.)

- 3.1 Solid Wastes- Types, Characteristics
- 3.2 Solid Waste Disposal – Sanitary Landfills, VermiComposting, Incineration
- 3.3 Waste Minimization and Recycling

Unit 4**Environmental Toxicology****(6 hrs.)**

- 4.1 Toxicity, Threshold Limiting Value of Pollutants, LD₅₀
- 4.2 Toxic Effects of Pb, As, Cd, Hg, PCBs, Pesticides, Heavy Metals
- 4.3 Case Studies: Bhopal Gas Tragedy, Chernobyl Accident, Love Canal Episode, Minamata Disease, Itai-Itai Disease

Unit 5**Environmental Management****(14 hrs.)**

- 5.1 Sustainable Development: Definition, Sustainability Cycle, Biodiversity, Problems of Urbanization and Steps towards Sustainable Development
- 5.2 Environmental Impact Assessment: Concept, Environmental Risk Assessment, Legal and Regulatory Aspects in India- Environmental (Protection) Act 1986, Air (Prevention and Control of Pollution) Act 1981, Water (Prevention and Control of Pollution) Act 1981, ISO 14000, Tsunami Disaster
- 5.3 Industrial Safety and Health: EPA, OSHA – Regulations, Polluter Pays Principle
- 5.4 Global and National Efforts: Steps taken towards Green Future at the National and Global Level
- 5.5 Coastal Management

TEXT BOOKS

Sharma B.K. and Kaur H. *Environmental Chemistry*, Meerut: Goel, 1998.

Gaur G. *Soil and Solid Waste Pollution and its Management*, New Delhi: Sarup, 2000.

BOOKS FOR REFERENCE

Dara, S.S. *A Text Book of Environment Chemistry and Pollution Control*, New Delhi: S.Chand, 2004.

Leelakrishnan, *Environmental laws in India*, New Delhi: Butterworths, 2002.

Mohan I. *Environmental Pollution and Management*, New Delhi: Ashish, 1990.

NIIR Board, *Modern Technology of Waste Management- Pollution Control, Recycling, Treatment and Utilization*. New Delhi: Asia Pacific Business, 2003.

Paul L. Bishop, *Pollution Prevention - Fundamentals and Practices*. New York : McGraw Hill, 2000.

Trivedy R.K. and Raman N.S. *Industrial Pollution and Environmental Management*. Jodhpur : Scientific, 2003.

Willen Rudolf, *Industrial Wastes Their Disposal and Treatment*. Bikaner: Allied Scientific, 1997.

JOURNALS

Energy and Environmental Science

Environmental Toxicology & Chemistry

Environmental Science: An Indian Journal

Journal of Pollution Research

Journal of Environmental Chemistry

WEB RESOURCES

<http://environmentalchemistry.com/>

<http://www.niehs.nih.gov/health/topics/agents/>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks

(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks

(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086
M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ORGANIC CHEMISTRY-II

CODE: 15CH/PC/OC24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand the importance of reaction intermediates
- To suggest mechanisms for a given reaction.
- To understand the application of photochemistry and concerted reactions in the field of organic chemistry.

Unit 1

Reactive Intermediates

(14 hrs.)

1.1 Formation, Stability, Reactions and Rearrangements

- Carbocations (Wagner Meerwein Rearrangements)
- Carbanions (Wittig, Favorski Rearrangement)
- Carbene (Skattebol, Wolff Rearrangement, Insertion of C-H and X-H bonds),
- Nitrenes (Hofmann, Schmidt, Lossen, Curtius, Beckmann rearrangements),
- Carbon Radicals (Acyloin Condensation, Dimerisation, McMurry Reactions)
- Arynes (Dimerisation Reactions)

1.2 Neighbouring Group Participation and Non-classical Carbonium ion.

Unit 2

Condensation, Addition, Elimination and Substitution Type Name Reactions (14 hrs.)

2.1 Condensation- Aldol, Perkin, Stobbe, Dieckmann, Claisen, Mannich

2.2 Addition- Grignard, Diels-Alder, Michael, Hydroboration, Robinson, Annulation, Woodward and Prevost Hydroxylation, Reformatsky, Stork enamine reactions

2.3 Substitution- Chichibabin, Friedel-Crafts, Vilsmeier-Haack, Reimer-Tiemann,

2.4 Gatterman-Koch, Hoesch, Bischler-Napieralski, Hunsdiecker, Fries, Sommelet-Hauser rearrangements

2.5 Elimination- Peterson synthesis, Shapiro, Cope

Unit 3

Oxidation and Reduction Reactions

(10 hrs.)

3.1 Reduction- Birch, Wolff Kishner, Clemmenson and selective reduction of 4-tert-butyl cyclohexanone using selective-hydride reduction

3.2 Oxidation- Oppenauer, Swern, Baeyer Villiger, SeO₂ (methylene to carbonyl), Allylic Oxidation of Olefins, Cr(VI) reagents, Oxidation of Aryl Methanes

Unit 4

Photochemistry

(10 hrs.)

4.1 Fundamentals of Photochemistry, Jablonski Diagram

4.2 Cis-trans Isomerisation, Paterno-Buchi Reaction, Norrish type-I and type-II Reactions, di-pimethane Rearrangement.

4.3 Photochemistry of Cyclohexadienones

4.4 Photoreduction of ketones and Photooxidation of olefins.

Unit 5

Pericyclic Reactions

(17 hrs.)

5.1 Classification, Orbital Symmetry, Woodward- Hofmann Rules (con & dis rotation).

5.2 Electrocyclic Reactions-Thermal and Photochemical(cyclisation and ring openings).Stereochemistry, FMO and Correlation Diagrams for butadiene to cyclobutene and 1, 3, 5-hexatriene to 1, 3- cyclohexadiene systems.

5.3 Cycloaddition Reactions- Thermal and Photochemical, Stereochemistry, FMO and Correlation Diagrams of (2+2 and 4+2) Reactions.

5.4 Sigmatropic rearrangements – Cope, oxy-Cope and Claisen rearrangement.

5.5 Cheletropic Reactions

5.6 Fluxional Molecules – Homotropyldiene, barbaelone, bullvalene.

TEXT BOOKS

Ahuliwalia, V.K. and R.K .Parashar.*Organic Reaction Mechanism*.New Delhi: Narosa, 2002.

Bruckner,R.*Advanced Organic Chemistry: Reaction Mechanisms*.USA:Academic Press, 2003.

Singh, Jagadamba, Jaya Singh.*Photochemistry and Pericyclic Reactions*.New Delhi: New Age, 2005.

March, Jerry.*Advanced Organic Chemistry*.New York: Wiley,2007.

BOOKS FOR REFERENCE

JonathanClayden, Nick Greeves, Stuart Warren,*Organic Chemistry*.New York:Oxford University Press, 2012.

Carey,A. Francis, Richard J. Sundberg, *Advanced Organic Chemistry Part A: Structure and Mechanisms*.New York: Springer, 2007.

Carruthers,W.and I. Coldham,*Modern Methods of Organic Synthesis*.UK:Cambridge University Press, 2005.

Turro,N.J.*Modern Molecular Photochemistry*. Sausalito: University Science Books, 1991.

Solomons, T.W Grahamand Craig B. Fryhle,*Organic Chemistry*. New York: John Wiley, 2000.

Moody, C.J.and Witham G.H. *Organic Reactive Intermediates*. New York:Oxford Chemistry, 1992.

Bansal, K. Raj, *Organic Reaction Mechanism*.New Delhi:Tata McGraw-Hill, 2006.

JOURNALS

Topics in Current Chemistry

AngewandteChemie

ActaChemicaScandinavica

Pure and Applied Chemistry

WEB RESOURCES

<http://www.grc.org/programs.aspx?id=11812>

www.ijrbsonline.com

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks(1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks(2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

QUANTUM CHEMISTRY AND GROUP THEORY

CODE: 15CH/PC/QG24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To give an understanding of basic principles of quantum mechanics and their applicability to study the internal structure of atoms and molecules
- To enable an understanding of the important concepts of group theory

Unit 1

Matter Waves and Quantum Mechanical Formalism (10 hrs.)

- 1.1 Wave Particle Duality, Uncertainty Principle, Particle Wave and Schrödinger Wave Equation, Wave Functions, Properties of Wave Function. Conditions of Normalization and Orthogonality
- 1.2 Operators and their Algebra, *Eigen* Values and *Eigen* Functions, Hermitian Properties of Operators, Postulates of Quantum and some Theorems Related the same
- 1.3 Free Particle, Particle in One Dimensional Box with Infinite Potential Barrier, Quantization and Quantum Numbers, Use of Box Model, Particle in a Three Dimensional Box, Degeneracy, Particle in a Box with Finite Potential Barriers, Quantum Mechanical Tunneling, Problems

Unit 2

Application to Simple Systems (16 hrs.)

- 2.1 Harmonic Oscillator (Classical & Quantum Mechanical), Schrodinger Wave Equation and Its Solution, Hermite Polynomial, Complete Wave Function, Vibrational Quantum Numbers, Physical Picture of Ψ and Ψ^2 .
- 2.2 Particle in a Sphere, Schrödinger Wave Equation in Spherical Coordinates (Derivation Not Expected), Legendre and Associated Legendre Functions, Rotational Quantum Numbers, Spherical Harmonics, Rotation of a Diatomic Molecule, Problems
- 2.3 Schrodinger Wave Equation in Spherical Coordinates, Splitting Equation into R, Θ and Φ Equations, Solving R-Equation, Laguerre Polynomial and Associated Laguerre Polynomials, Radial Functions, Quantum Numbers n and l, Energy Eigenvalues in Atomic Units, Complete Wave Function of Hydrogen Like Atoms, Physical Representation of Orbitals, Radial Plots and Angular Plots, Probability Function and Plots, Average Distance of Electron, Problems
- 2.4 Approximation Methods – Variational Method (Linear Band Non-Linear Variation), Perturbation Theory (Non-Degenerate, First Order), Application to Helium Atom. Ground State

Unit 3

Atomic Structure (16 hrs.)

- 3.1 Symmetric and Anti Symmetric Wave Functions, Electron Spin, Spin Orbitals, Pauli's Principle

- 3.2 Excited State of He Atom, Singlet and Triplet States.
3.3 Hartree- Fock Self Consistent Field Theory. Walsh Diagrams. Angular Momentum of many Electron Atoms, Ladder Operators
3.4 LCAO-MO for H_2^+ , Molecular Orbital Approximation for Ethylene, Butadiene and Benzene. Plots and Nodes of Molecular Orbitals

Unit 4

Group theory: Fundamental Concepts (16 hrs.)

- 4.1 Symmetry Operation and Elements, Defining Coordinate System, Combining Symmetry Operations, Symmetry Point Groups, Point Group of Molecules, Systematic Point Group Classification, Optical Activity and Symmetry
4.2 Irreducible Representation, Unit Vector Transformation, Reducible Representations, Systematic Reduction of Reducible Representation
4.3 Group Multiplication Tables, Sub Groups and Classes, the Great Orthogonality Theorem
4.4 Construction of Character Table for Point Groups. (D_{2h} , C_{2v} , C_{3v}), Explanation for the Complete Character Table for the above Groups

Unit 5

Application of group theory (7 hrs.)

- 5.1 Application of Group Theory in (I) Electronic Spectra –HCHO (ii) Vibrational Spectra –H₂O
5.2 Application of Group Theory in Hybridization Schemes for Simple Molecules-CH₄, H₂O, NH₃

TEXTBOOKS

- Prasad, R.K. *Quantum Chemistry*. New Delhi: New Age International, 1997.
Atkins, P.W. *Molecular Quantum Mechanics*. Oxford: Clarendon Press, 2006.
Chandra, A.K. *Introductory Quantum Chemistry*. New Delhi: Tata McGraw- Hill, 2006.
Cotton, F.A. *Chemical Applications of Group Theory*. New Delhi :Wiley Eastern, 2000.

BOOKS FOR REFERENCE

- Carter, R.L. *Molecular Symmetry and Group Theory*. New Delhi: John Wiley, 2005.
Levine, I.R. *Quantum Chemistry*. New Delhi: Prentice Hall of India, 1994.
Prasad, R.K. *Quantum Chemistry through Problems and Solutions*. New Delhi: New Age International, 1997.
Lowe, J.P. *Quantum Chemistry*. San Diego: Academic Press, 1993.
McQuarrie, A. Donald, *Quantum Chemistry*. Oxford: Oxford University Press, 1982.
Cox, P.A. *Introduction to Quantum Theory and Atomic Structure*, Oxford: Oxford University Press, 1996.
Albright, T.A. and J.K. Burdett, *Problems in Molecular Orbital Theory*, Oxford: Oxford University Press, 1992.
Bishop, D.M. *Group Theory and Chemistry*. New York: Dover, 1993.

JOURNALS

International Journal of Quantum Chemistry
Langmuir
Journal of Group Theory

WEB RESOURCES

<http://symmetry.otterbein.edu/gallery/>
<http://ctg.epfl.ch/>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz
Seminars
Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

COORDINATION CHEMISTRY

CODE: 15CH/PC/CO24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable the students to gain an understanding of the principles of bonding in coordination complexes
- To enable the students to appreciate the importance of electronic spectra and magnetic properties of complexes
- To provide an insight into the biological role of metal ions in everyday life

Unit 1

Introduction to Coordination Complexes (15 hrs.)

- 1.1 Nomenclature, Stereochemistry and Isomerism of Complexes With Coordination Number 2 to 6, Stability of Complexes, Thermodynamic Aspects, Successive and Overall Formation Constants – Factors affecting Stability of Complexes -Chelate Effect - Importance of Chelates and Determination of Stability Constants
- 1.2 Theories of Bonding in Complexes: Valence Bond Theory, Crystal Field Theory- Crystal Field Splitting in O_h , T_d , Tetragonal and Squareplanar Complexes. Factors Influencing Magnitude of Δ_o – Spectrochemical Series, CFSE and Applications of CFT. Distortion in O_h Complexes - Jahn Teller Effect
- 1.3 Ligand Field Theory and Molecular Orbital Theory – Qualitative Treatment of LCAO Method, MO Energy Diagrams of Sigma and Pi Bonding in O_h Complexes

Unit 2

Spectral Characteristics of Metal Complexes (18 hrs.)

- 2.1 Types of Absorption Spectra, Spectral Terms – Russell-Saunders States, Electronic States – Terms Resulting From d^n Configuration, Selection Rules
- 2.2 Correlation Diagrams – Orgel and Tanabe-Sugano Diagrams, Racah Parameters and Nephelauxetic Series, Electronic Spectra of d^{1-9} Metal Complexes. Charge Transfer Spectra
- 2.3 Electronic Spectra of Lanthanide & Actinide Complexes
- 2.4 Mössbauer Spectra of Iron and Tin Complexes
- 2.5 ESR Spectra of Copper and Cobalt Complexes

Unit 3

Magnetic Characteristics of Complexes (8 hrs.)

- 3.1 Types of Magnetic Properties, Magnetic Properties of Complex Ions – Lanthanides & Actinides
- 3.2 Orbital Contribution to Magnetic Moment, Quenching of Orbital Angular Momentum, Spin-Orbit Coupling

Unit 4

Reaction Mechanisms in Complexes

(15 hrs.)

- 4.1 Kinetics and Mechanisms of Reactions of Complexes: Substitution Reactions of O_h complexes- Mechanism of Water Replacement - Acid Hydrolysis and Basehydrolysis - S_N1CB Mechanism
- 4.2 General Mechanism of Square Planar Substitution Reactions: Two Parallel Pathways - Factors Affecting the Reactivity of Square Planar Complexes of d^8 metal Ions - Trans Effect - Theories of Trans Effect
- 4.3 Mechanism of Electron Transfer Reactions: Outer Sphere Electron Transfer Reactions - Marcus Theory and Inner Sphere Electron Transfer Reactions-Formation and Rearrangement, Nature of the Bridge Ligand in Inner Sphere Electron Transfer Reactions. Non-Complementary Reactions
- 4.4 Photochemical Reactions of Transition Metal Complexes: Photosubstitution and Photoisomerisation of Cobalt and Chromium Complexes

Unit 5

Bio-Inorganic Chemistry

(9 hrs.)

- 5.1 Biological Importance of Trace Elements
- 5.2 Structure and Functions of Metalloporphyrins:
 - Transport and Storage of Oxygen (Haemoglobin and Myoglobin)
 - Electron Transfer- Cytochromes
 - Vitamin B_{12} (Cyanocobalamin)
 - Photosynthesis (Chlorophyll)
- 5.3 Iron Storage - Rubredoxins and Ferredoxins
- 5.4 Biological Redox Systems- Plastocyanin

TEXTBOOKS

Cotton, F.A. and G.Wilkinson, *Advanced Inorganic Chemistry*. New York: John Wiley, 2000.

Huheey, E. James and Ellen A. Keiter, *Inorganic Chemistry - Principles of Structure and Reactivity*. New York: Addison Wesley 2004.

BOOKS FOR REFERENCE

Jolly, W.L. *Modern Inorganic Chemistry*. New York: McGraw – Hill, 1991.

Moeller, T. *Inorganic Chemistry*. New York: John Wiley, 1990.

Purcell, Keith.F. and John C.Kotz. *An Introduction to Inorganic Chemistry*, Philadelphia: W.B.Saunders, 1982.

Wells, A.F. *Structural Inorganic Chemistry*. London: ELBS, 1981.

JOURNALS

Journal of Inorganic Chemistry

Journal of Coordination Chemistry

WEB RESOURCES

http://www.chemistry.wustl.edu/~edudev/LabTutorials/naming_coord_comp.html

<http://chemed.chem.purdue.edu/genchem/topicreview/bp/ch12/names.php>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks(5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ORGANIC SEPARATION AND ANALYSIS - PRACTICAL

CODE: 15CH/PC/P324

CREDITS : 4

L T P : 0 0 6

TOTAL HOURS: 78

Unit 1

Preparation of Reagents used for Qualitative Organic Analysis

Tollen's reagent, Fehling's Reagents A & B, Barfoed's reagent, Benedict's Reagent, Molisch's reagent, Bromine Water, Brady's reagent, Schiff's reagent

Unit 2

Separation and analysis of a mixture of two organic compounds

- Solvent separation based on solubility in acid, base or neutral media
- Pilot separation & Bulk separation
- Identification of functional groups, Preparation of derivatives for functional groups and determination of their melting points
- Compounds can be separated using Soxhlet and Rotary Vacuum Evaporator(demonstration only)
- Identification of separated compounds & derivatives using UV and IR(demonstration only)

A comprehensive viva will be conducted during the practical hours

BOOKS FOR REFERENCE

Ahluwalia, V.K. and Renu Agarwal. *Comprehensive Practical Organic Chemistry-Preparation and Quantitative Analysis*. Hyderabad: University Press, 2000.

Mohan, J. *Organic Analytical Chemistry—Theory and Practice*. New Delhi: Narosa, 2003.

Bansal, K.Raj. *Laboratory Manual of Organic Chemistry*. New Delhi: Wiley Eastern, 1994.

Vogel, A.I. *Elementary Practical Organic Chemistry Part II, Qualitative Organic Analysis*. New Delhi: CBS Publishers, 1998.

Unit 1 to be tested internally

PATTERN OF EVALUATION

END SEMESTER EXAMINATION:

Total Marks: 50

Duration : 6 hours

Pilot test		: 4 marks
For each compound:		
Aliphatic/Aromatic	: 1 mark	
Saturated/Unsaturated	: 1 mark	
Special Elements	: 3 marks	
Procedure	: 4 marks	
Derivative	: 2 marks	
Functional Group	: 4+2 marks	
Melting point	: 1 mark	
Total	: 18 marks	
For two compounds	: 2 x 18	: 36 marks
Viva voce		: 10 marks
TOTAL		: 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOFT SKILLS

CODE: 15CH/PK/SS22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self-development
- To instill confidence and face challenges

Unit 1

Behavioral Traits

(6 hrs.)

- 1.1 Self-Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and Mannerisms
- 1.5 Experiential Learning – Based on activities

Unit 2

Team Work

(5 hrs.)

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on activities

Unit 3

Time Management

(5 hrs.)

- 3.1 Importance of Time Management
- 3.2 Planning and Prioritizing
- 3.3 Organizing Skills
- 3.4 Action Plan
- 3.5 Experiential Learning – Based on Activities

Unit 4

Conflict Resolution

(5 hrs.)

- 4.1 Reasons for Conflict
- 4.2 Consequences of Conflict
- 4.3 Managing Emotions
- 4.4 Methods of Resolving Conflicts
- 4.5 Experiential Learning – Based on Activities

Unit 5

(5 hrs)

Career Mapping

- 5.1 Goal Setting and Decision Making
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv, (2002), **You Can Win**, Macmillan India Ltd., Delhi.

Mishra, Rajiv K., (2004), **Personality Development : Transform Yourself**, Rupa and Co., New Delhi.

Newstrom, John W. and Scannell, Edward E., (1980), **Games Trainers Play: Experiential Learning**, Tata McGraw Hill, New Delhi.

PATTERN OF EVALUATION (Totally Internal)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

SYNTHETIC ORGANIC CHEMISTRY AND NATURAL PRODUCTS

CODE: 15CH/PC/SO34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To perform retrosynthetic analysis and identify the target molecule
- To design synthesis of a given compound
- To appreciate the role of reagents in the synthesis of organic compounds
- To impart knowledge on the extraction and synthesis of natural products

Unit 1

Strategies for Synthesis (15 hrs.)

- 1.1 Definitions, Synthons and Synthetic Equivalents, Guidelines, Functional Group Interconversion and Planning for Synthesis of Organic Compounds
- 1.2 Disconnection Approach – One Group C-X, Two Group C-X, One Group C-C and Two Group C-C Disconnections
- 1.3 Chemoselectivity, Reversal Polarity (Umpolung) and Amine Synthesis
- 1.4 Protection and Deprotection – Alcohols, Carbonyls, Carboxylic Acids and Amino Functional Groups
- 1.5 Retrosynthetic Analysis- Alternate Synthetic Routes. Synthesis of Organic Mono and Bifunctional Compounds Via Disconnection Approach
- 1.6 Stereochemical Control of Products- Selective Aldol and Michael Reactions

Unit 2

Novel Reagents in Organic Synthesis (16 hrs.)

- Use of the Following Reagents in Organic Synthesis and Functional Group Transformations:
- 2.1 Diborane, OsO₄, NBS, Phenylisothiocyanate, DCC, Lead Tetraacetate, PCC, Tosyl Chloride, Trifluoroacetic Acid, DDQ, Selenium Dioxide, TMSI and Dithianes, Perbenzoic Acid
 - 2.2 Baker's Yeast

Unit 3

Organometallic Reagents in Organic Synthesis (12 hrs.)

Organometallic Reagents- Crown Ether Complexes, n-Butyl Lithium, LDA, LAH, tri-n-Butyl Tin Hydride, Aluminium, Silicon, Copper, Cobalt, Zinc and Palladium Compounds

Unit 4

Alkaloids, Terpenoids and Steroids (12 hrs.)

- 4.1 General Methods of Structure Determination of Alkaloids, Terpenoids and Steroids
- 4.2 Structure Elucidation of Zingiberine (Terpenoid), Papaverine and Reserpine (Alkaloids)
- 4.3 Constitution of Cholesterol – Structure of the Nucleus, Position of the Hydroxyl Group and Double Bond, nature and position of the side-chain, position of the angular Methyl Group

Unit 5

Natural Pigments

(10 hrs.)

- 5.1 Anthocyanins– Introduction, Isolation, Determination of Structure of Anthocyanins and General Methods for the Synthesis of Anthocyanidins
- 5.2 Flavones and Flavonols: Introduction, Isolation, General Properties, Basic Structure of Flavones and Flavonols, General Methods for Determination of the Structure of Flavones Taking Flavone as an Example
- 5.3 Structure Elucidation of Apigenin (Flavones), Quercetin (Flavonols) and Daidzein (Isoflavones)
- 5.4 Distinction of Flavonoids by Characteristic Colour Reactions and Absorption Spectra (UV-Visible)

TEXT BOOKS

Warren, Stuart. S. *Organic Synthesis- the Disconnection Approach*. New York: Wiley, 2013.

Sanyal, S.N. *Reactions, Rearrangements and Reagents*. New Delhi: Bharathi Bhawan, 2006.

Singh, Jagadamba and L.D.S. Yadav. *Advanced Organic Chemistry*. Meerut: Pragati Prakashan, 2010.

Singh, J, S.M. Ali and Jaya Singh. *Natural Products Chemistry*. Meerut: Pragati Prakashan, 2010.

BOOKS FOR REFERENCE

Jonathan, Clayden, Nick Greeves, Stuart Warren. *Organic Chemistry*. New York: Oxford University Press, 2012.

Carey, A. Francis and Richard J. Sundburg. *Advanced Organic Chemistry Part B: Reactions and Synthesis*. New York: Springer, 2007.

Harmata, Michael. *Strategies and Tactics in Organic Synthesis*. London: Academic Press, 2008.

Norman, R.O.C and J.M. Coxon. *Principles of Organic Synthesis*. New York: CRC Press, 2012.

Bhat, V. Sujata, Bhimsa A. Nagasampagi, Meenakshi Siva Kumar. *Chemistry of Natural Products*, India: Narosa, 2005.

Finar, I.L. *Organic Chemistry*. London: ELBS, 2000.

Agarwal, O.P. *Chemistry of Organic Natural Products*. Meerut: Krishnan Prakashan, 2010.

JOURNALS

Journal of the American Chemical Society

The Journal of Organic Chemistry

Tetrahedron Letters

Journal of Natural Products

WEB RESOURCES

www.oxfordtextbooks.co.uk/orc/clayden2e/

<http://pubs.acs.org/doi/abs/10.1021/jm500941m>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks(5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks(2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

MOLECULAR SPECTROSCOPY

CODE: 15CH/PC/MS34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the principles of various spectroscopic techniques
- To interpret the spectra of molecules and predict the structure of compounds
- To understand the complementary nature of spectra in structural elucidation

Unit 1

Rotational, Vibrational, Rotational-vibrational Spectroscopy (17 hrs.)

- 1.1 Rotational Spectroscopy: Classification of Rotors Based on Moment of Inertia, Diatomic Molecules as Rigid Rotors and Non-Rigid Rotors - Rotational Energy Levels, Transitions, Selection Rules and Effect of Isotopic Substitutions. Inversion Phenomena and Stark Effect. Rotational Spectra of Linear, Symmetric and Asymmetric Top Polyatomic Molecules
- 1.2 Vibrational Spectroscopy : Diatomic Molecules as Harmonic and Anharmonic Oscillators – Energy Levels and the Vibrational Transitions. Vibrations of Polyatomic Molecules – Fundamental Vibrations, Overtones, Combination Bands and Symmetry of Linear and Nonlinear Molecules
- 1.3 Vibrational - Rotational Spectroscopy- Diatomic Vibrating Rotator- Energy Levels, Transitions, and Selection Rules. Parallel and Perpendicular Vibrations of Linear Poly Atomic Molecules and Symmetric Top Molecules. Effect of Nuclear Spin. Raman Spectroscopy- Raman Effect, Rule of Mutual Exclusion and Resonance Raman Effect. Raman as Complementary to IR. Structure Determination of CO_2 , N_2O , SO_2 , NO_3^- , ClO_3^- and ClF_3
- 1.4 Interpretation of IR Spectra: Group Frequencies of various Functional Groups. Factors affecting Group Frequencies

Unit 2

Electronic Absorption Spectroscopy (10 hrs.)

- 2.1 Principle of UV-Visible Spectroscopy, Electronic Spectra of Diatomic Molecules - Born – Oppenheimer Approximation, Franck Condon Principle, Dissociation and Predissociation Energy
- 2.2 Molecular Term Symbols (Diatomic Molecules)
- 2.3 Characterization of Organic Compounds: Factors Affecting Absorption Spectra. Application of Woodward-Fieser Rules to Conjugated Dienes, α,β - Unsaturated Carbonyl Compounds, Benzene and its Substituted Derivatives and Polycyclic Aromatic Hydrocarbons. Fieser-Kuhn Equation – Study of Polyene Systems

Unit 3

Nuclear Magnetic Resonance Spectroscopy (15 hrs.)

- 3.1 NMR Phenomena, Nuclear Spin, Bloch Equations and Types of Relaxation Processes

- 3.2 Parameters of ^1H -NMR: Chemical Shift, Shielding and Deshielding, Factors affecting δ . Chemical Structure Correlations of δ , Chemical and Magnetic Equivalence of Spins
- 3.3 ^1H -NMR: Spin-Spin Splitting, Application of Spin-Spin Splitting to Structure Determination. Effect of Coupling Constants – Geminal Coupling, Vicinal Coupling and Long Range Coupling
- 3.4 ^{13}C -NMR : Comparison of ^{13}C and ^1H -NMR, Spin Decoupling, The Nuclear Overhauser Effect, Peak Intensity, Chemical Classes, Chemical Shifts, ^{13}C - ^1H and ^{13}C - ^{13}C Spin Coupling - DEPT. Structure Determination of Simple Aliphatic and Aromatic Compounds
- 3.5 An Introduction to NMR in Solid State, FID, 2D and 3D NMR. ^{15}N , ^{31}P and ^{19}F NMR – Spectra of Simple Inorganic Compounds

Unit 4

Mass Spectrometry

(17 hrs.)

- 4.1 Basic Principles, Fragmentation Types and Rules. Interpretation of Mass Spectra- Molecular Ion Peak, Isotope Peaks, Base Peak, Metastable Peak, Nitrogen Rule. Calculation of Isotopic Distributions – Carbon and Halogen Isotopes using Binomial Expressions
- 4.2 Fragmentation Patterns: Cleavage of Sigma Bond- Even Electron Rule, α - Cleavage- Stevenson's Rule, Benzylic Bond Cleavage, Inductive Cleavage, Retro Diels-Alder Cleavage and McLafferty Rearrangement
- 4.3 Structure Determination of Organic Compounds and Inorganic Compounds - Metal Halide Salts and Coordination Complexes

Unit 5

(6 hrs.)

Determination of structure of organic and inorganic compounds by comprehensive (UV, IR, NMR and Mass) spectral data

TEXT BOOKS

Banwell, Colin and Mckash Elaine. *Fundamentals of Molecular Spectroscopy*. New Delhi: Tata McGraw Hill, 2013.

Silverstein, M. Robert, Francis X. Webster and David Kiemle. *Spectrometric Identification of Organic Compounds*, New Delhi: Wiley, 2005.

Kemp, William. *Organic Spectroscopy*. New Delhi: Macmillan, 1991.

BOOKS FOR REFERENCE

Barrow, M. Gordon. *Introduction to Molecular Spectroscopy*. New York: McGraw Hill, 1976.

Dudley, H. Williams and Ian Fleming. *Spectroscopic Methods in Organic Chemistry*. New Delhi: Tata McGraw-Hill, 2005.

Harris, C. Daniel. *Symmetry and Spectroscopy: An Introduction to Vibrational and Electronic Spectroscopy*. New York: Oxford University, 1980.

Pavia, L. Donald. *Introduction to Spectroscopy- A Guide for students of Organic Chemistry*. Singapore: Harcourt Asia, 2001.

Sathyanarayana, D.N. *Vibrational spectroscopy*. New Delhi: New Age, 2007.

Scheimann. *An Introduction to Spectroscopic Methods for Identification of Organic Compounds*. London: Pergamon Press, 1970.

JOURNALS

Journal of Spectroscopy
Journal of Molecular Spectroscopy
Journal of Applied Spectroscopy

WEB RESOURCES

<http://www.astbury.leeds.ac.uk/facil/MStut/mstutorial.htm>
<http://www-keeler.ch.cam.ac.uk/lectures/Irvine/>
<http://www.nmr-relax.com/>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz
Seminars
Assignments
Problem Solving

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks(2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ORGANIC SYNTHESIS AND PURIFICATION - PRACTICAL

CODE: 15CH/PC/P434

CREDITS : 4

L T P : 0 0 6

TOTAL HOURS : 78

Unit 1

Purification of Organic compounds- Paper Chromatography/TLC / Column chromatography (to be tested internally)

Unit 2

Organic Preparation

2.1 Single Step Preparations

- 2.1.1 Preparation of o-chloro benzoic acid (Sandmeyer reaction)
- 2.1.2 Preparation of methyl orange (Diazotisation)
- 2.1.3 Preparation of Benzpinacol (Photoreduction)
- 2.1.4 Preparation of Benzoic acid and benzyl alcohol (Cannizaro Reaction)
- 2.1.5 Preparation of Benzil (Oxidation)

2.2 Two Step Preparations

- 2.2.1 Preparation of p-bromoacetanilide from aniline (Acetylation, Bromination)
- 2.2.2 Preparation of s-tribromo benzene from aniline (Bromination, Reduction)
- 2.2.3 Preparation of m-nitroaniline from nitrobenzene (Nitration, Reduction)

2.3 Microwave assisted Preparations

- 2.3.1. Preparation of Fluorescein (Xanthene dye)
- 2.3.2. Preparation of Benzalacetophenone (Clasien Schmidt condensation)
- 2.3.3. Preparation of ethyl-2-cyano-3-(4-methoxy phenyl)propenoate (Knovenegal reaction)

Note : Spectroscopic identification / purification by chromatographic methods wherever applicable.

BOOKS FOR REFERENCE

Mohan, J. *Organic Analytical Chemistry – Theory and Practice*. New Delhi: Narosa, 2003.

Bansal, K. Raj. *Laboratory Manual of Organic Chemistry*. New Delhi: Wiley Eastern, 2003.

Vogel, A.I. *Elementary Practical Organic Chemistry Part I, Small Scale Preparation*. New Delhi: CBS, 1998.

END SEMESTER EXAMINATION:

Total Marks: 50 marks

Duration : 6 hours

Viva Voce : 10 marks

Procedure for the Preparation : 5 marks

Preparation : 35 marks

(i) Two Stage Preparation : (35 marks)

Quantity of Product 1 - 13marks

Quantity of Product 2 -13 marks

Quality of Final Product

a)Recrystallisation - 5 marks

b) Melting point - 4 marks

OR

(ii) Two Single Stage Preparations: (35 marks)

Quantity of Product - 7.5marks (each)

Quality of Final Product

a)Recrystallisation - 5 marks (each)

b) Melting point - 5 marks (each)

TOTAL

: 50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. . DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

POLYMER MATERIALS AND APPLICATIONS

CODE: 15CH/PE/PM14CREDITS: 4

L T P: 400

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce the main concepts and modern developments in polymer chemistry
- To facilitate the understanding of the techniques of polymer analysis
- To motivate the students to pursue research in polymer chemistry

Unit 1

Introduction to Polymer Materials (10 hrs.)

- 1.1 Polymer Chain Structure and Configuration: Nomenclature, Functionality, Method of Linking
- 1.2 Natural Polymers and Synthetic Polymers (PU, PMMA, Silicone Polymers) - Structure, Properties and Application
- 1.3 Types of Degradation (Thermal, Mechanical, Ultrasound, Photo , Bio and Non-Biodegradation)
- 1.4 Specialty Polymers-Conducting, IPN, Thermally Stable, Hydrogels-Structure, Properties and Application

Unit 2

Mechanism and Kinetics of Polymerization (8 hrs.)

- 2.1 Types of Polymerization- Homo Polymerization, Co Polymerization, Addition and Condensation Polymerization
- 2.2 Mechanism- Free Radical and Ionic Polymerization
- 2.3 Co-Ordination Polymerization with special reference to Ziegler-Natta and Aluminoxide
- 2.4 Kinetics of Free Radical Polymerization
- 2.5 Polymerization Techniques (Bulk, Emulsion, Solution and Suspension)

Unit 3

Molecular Weight Distribution (10 hrs.)

- 3.1 Significance of Degree of Polymerization and Molecular Weight of Polymers
- 3.2 Number Average and Weight Average Molecular Weight
- 3.3 Methods of Determination of Absolute Molecular Weight- Light Scattering Method, GPC, Viscometry and End Group Analysis
- 3.4 Intrinsic Viscosity-Mark Houwnik Equation

Unit 4

Physical Chemistry of Polymers

(12 hrs.)

- 4.1 Amorphous and Crystalline Polymers, Conformation of the Polymer Chain, Single Crystal Spherulites, Liquid Crystal Polymers- Terminology, Properties of Mesogens
- 4.2 Glass Transition Temperature- Factors Influencing, Heat Distortion and Crystallisability
- 4.3 Thermodynamics of Polymer Solution, Flory Higgins Theory (Derivation not required) Phase Equilibrium, Solubility Parameter
- 4.4 Basic Processing Operations (Extrusion, Mastication, Molding and Calendaring)
- 4.5 Melt Rheology of Polymers (PVC, PU, and PS), Stress-Strain Properties and Visco Elastic Behavior of Polymers, Newtonian and Non-Newtonian Behavior of Polymers, Flow Properties of Polymer Melts and Solutions

Unit 5

Characterization and Testing of Polymers

(12 hrs.)

- 5.1 Spectroscopic Characterization of Polymers (FTIR, NMR)
- 5.2 Thermal Properties, Thermal Conductivity, Thermal Expansion, TGA, DTA, DSC and DMA (special reference to PET and PMMA)
- 5.3 Mechanical Properties of Polymers- Hardness, Impact Strength Stress Relaxation, Aberration Testing –IS, ASTM Methods

TEXT BOOKS

Gowariker, V.R., N.V Viswanathan, Jaydev Sreedhar. *Polymer Science*, New Delhi: New Age International, 2004.

Bhatnagar, M.S. *Text book of Polymers*. New Delhi: S.Chand, 2004.

Billmeyer, F.W. *Text Book of Polymer Science*. New York :Wiley Interscience, 2006.

BOOKS FOR REFERENCE

Brandolini, J. Anita and Deborah D. Hills. *NMR Spectra of Polymers and Polymer Additives*. New York : Marcel Decker, 2000.

Flory, P.J. *Principles of Polymer Chemistry*. Ithaca: Cornell University Press, 1953.

Gupta, B.R. *Applied Rheology in Polymer Processing*. New Delhi: Asian Books, 2005.

Joel, Fried. *Polymer Science and Technology*. New Delhi: Prentice Hall, 2005.

Misra, G.S. *Introduction to Polymers*. New Delhi: New Age International, 2001.

Munk, P. *Introduction to Macro Molecular Science*. New York: John Wiley, 2002.

Stuart, H. Barbara. *Polymer Analysis*. New Delhi: Narosa, 2002.

Young R.P., Lovell. *Introduction to Polymers*. London: Chapman & Hall, 2011.

JOURNALS

Langmuir
Macromolecules
Journal of Polymer Science

WEB RESOURCES

http://www.mpikg.mpg.de/886863/Liquid_Crystals.pdf
http://www.perkinelmer.com/CMSResources/Images/44-74546GDE_IntroductionToDMA.pdf

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz,
Seminars
Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks(2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

BIOCHEMISTRY

CODE: 15CH/PE/BC14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To enable the understanding of the structure-function relationship of biomolecules
- To give an insight into the metabolic pathways and the consequences of deviation from normal
- To instill interest in research in Biochemistry

Unit 1

Introduction to biochemistry (10 hrs.)

- 1.1 Scope of Biochemistry, Relationship between Biochemistry and Medicine; Normal Biochemical Process – Basis of Health
- 1.2 Water as a Biological Solvent and its Importance in Maintaining the Structure of Biomolecules
- 1.3 Acid Base Balance, Biological Buffers - Bi-Carbonate, Phosphate, Protein and Haemoglobin- Acidosis and Alkalosis

Unit 2

Bioenergetics (8 hrs.)

- 2.1 Bioenergetics: Conventions in Biochemical Energetics
- 2.2 ATP as the Universal Currency for Free Energy in Biological Systems
- 2.3 Free Energy of Hydrolysis of ATP and other Organophosphates
- 2.4 Structural Basis for the High Group Transfer Potential of ATP
- 2.5 Standard Free Energy Changes for Representative Chemical Reactions
- 2.6 Inter-Conversion of Adenine Nucleotides

Unit 3

Biomolecules (12 hrs.)

- 3.1 Biomolecules: Elementary Structure of Proteins, Nucleic Acids and Membrane Bilipids (Fluid Mosaic Structure)
- 3.2 Relationship between the Structure and Function of Proteins and the Consequences of Deviation from Normal

Unit 4

Biocatalysts – Enzymes (10 hrs.)

- 4.1 Enzymes, Definition, Co-Factor, Apoenzyme
- 4.2 General Properties, Active Site, Factors affecting Enzyme Action
- 4.3 Enzyme Regulation; Allosteric, Feedback Regulation, Product Inhibition
- 4.4 Immobilization of Enzymes, Methods and Applications

Unit 5

Metabolism

(12 hrs.)

5.1 Definition, Terminology and Functions of Metabolism

5.2 Metabolism of Carbohydrates – Glycolysis, Gluconeogenesis, Glycogen Metabolism, and TCA Cycle

5.3 Proteins – Oxidative Deamination, Transamination and Urea Cycle

5.4 Lipids – Beta Oxidation of Fatty Acids and Biosynthesis of Fatty Acids, Triglycerides and Cholesterol

5.5 Xenobiotics- General Methods of Detoxification

TEXT BOOKS

Albert, Lehninger. *Biochemistry*. New York :Worth , 2008.

Jain, J.L. *Fundamentals of Biochemistry*. New Delhi: S.Chand, 2008.

BOOKS FOR REFERENCE

Brandon and Tooze. *Introduction to Protein Structure*. New York: Garland, 2000.

Conn, E.E. and Stumpf. *Biochemistry*. New York :Wiley Eastern, 1976.

Glick, R. Bernard and Pasternak J. Jack. *Molecular Biotechnology-Principles and Applications of Recombinant DNA*. Washington: ASM Press, 2005.

Lubert, Stryer. *Biochemistry*. New York: W.H. Freeman, 2009.

Jain, J.L. *Fundamentals of Biochemistry*. New Delhi :S.Chand , 2008.

Jeremy, M. Berg. *Biochemistry*. New York :W.H. Freeman, 2001.

Voet, D. and Voet. G. *Biochemistry*. New York: John Wiley, 2007.

JOURNALS

Journal of Biochemistry

Journal of Clinical Biochemistry

Nature

WEB RESOURCES

<http://www.csun.edu/~hcchm001/biosites.htm>

<http://themedicalbiochemistrypage.org/>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

SUMMER INTERNSHIP

CODE: 15CH/PN/SI32

CREDITS: 2

OBJECTIVES OF THE COURSE

- To enhance the experiential learning of the students by observing and hands on training at research institutes / chemical industries.
- To expose them to various experimental and analytical techniques employed in quality research.
- Enhance their skills in application - oriented courses.
- To familiarize the students to research ambience.

The Summer Internship programme is for a minimum period of one month. The students are expected to have regular attendance in their respective Institute and submit a report to the Department about their summer internship along with the attendance certificate. The students are expected to give a seminar presentation in the third semester of the work they have observed and conducted.

GUIDELINES FOR EVALUATION

The maximum marks for the Summer Internship is 50 and is divided into the following:

- | | |
|---------------------------------------|------------|
| a) Summer Internship - Report | (20 Marks) |
| b) Seminar presentation | (20 Marks) |
| c) Attendance along with the log book | (10 Marks) |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ANALYTICAL INSTRUMENTATION

CODE: 15CH/PC/AI44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To equip the students with knowledge about different analytical techniques with a focus on their applications in industries and research laboratories
- To give an insight on the fundamental principles of analytical instrumentation techniques in order to pursue research

Unit 1

Spectroscopic Techniques (15 hrs.)

- 1.1 UV-Visible Spectroscopy- Principle and Instrumentation of Double Beam Spectrophotometer, Spectropolarimeters(Optical Rotatory Dispersion) and Spectrophotometer (Circular Dichroism)
- 1.2 Atomic Absorption and Emission Spectroscopy- Introduction, Principle and Instrumentation
- 1.3 Inductively Coupled Plasma Atomic Emission Spectroscopy(ICPAES) - Principle, Instrumentation and Applications
- 1.4 Infrared Spectroscopy-Dispersive and Fourier Transform- Principle and Instrumentation
- 1.5 Raman Spectroscopy-Principle and Instrumentation, Theory of Resonance Raman and Surface enhanced Raman Techniques

Unit 2

Surface Characterization Techniques (15 hrs.)

- Principle, Instrumentation and applications of -
- 2.1 Photoelectron Spectroscopy – Ultraviolet and X-Ray Photoelectron Spectroscopy (UPS and XPS), Auger Electron Spectroscopy (AES), ESCA
 - 2.2 Electron Microscopy: Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM)
 - 2.3 Probing Microscopy: Scanning Tunnelling Microscopy (STM), Atomic Force Microscopy (AFM)
 - 2.4 Low Energy Electron Diffraction

Unit 3

Electrochemical Techniques (15 hrs.)

- Principle, Instrumentation and applications of -
- 3.1 Polarography (DC, AC and Pulse), Anodic and Cathodic Stripping Voltammetry.
 - 3.2 Coulometry: Current- Voltage Relationship during Electrolysis, Coulometric Methods of Analysis, Potentiostatic Coulometry, Coulometric Titrations(Amperostatic Coulometry)
 - 3.3 Amperometry, Amperometric Titrations, Bipolar Amperometry
 - 3.4 Chrono methods: Chronoamperometry, Chronopotentiometry & Chronocoulometry
 - 3.5 Cyclic Voltammetry

Unit 4

Thermoanalytical and Radiochemical Techniques (14 hrs.)

- 4.1 Thermogravimetry(TG), Differential Thermal Analysis. Differential Scanning Calorimetry-

Principle, Instrumentation, Factors affecting the Thermogram and Applications, Evolved Gas Analysis

4.2 Thermometric Titrations – Principle, Working and Applications

4.3 Radiochemical Methods: Hot Atom Chemistry – the Szilard - Chalmers Process, Neutron Activation Analysis - Principle, Instrumentation and Applications

Unit 5

Chromatography

(6 hrs.)

5.1 Normal and Reversed Phase Liquid Chromatography (NP- and RP-LC), Gas Chromatography (GC) – Principle and Instrumentation, GC-MS – Applications

5.2 High Performance Liquid Chromatography (HPLC)- Principle, Instrumentation, Advantages and Applications

TEXT BOOKS

Sharma, B.K. *Instrumental Methods of Chemical Analysis*. Meerut: Goel, 2004.

Anjaneyulu, Y., Chandrasekhar.K and ValliManickam.A *Text Book of Analytical Chemistry*. India: Pharma Book Syndicate, 2006.

Douglas, A. Skoog, James F.Holler and Niemen.*Principles of Instrumental Analysis*. Singapore: Haracourt Asia, 2001.

BOOKS FOR REFERENCE

Brown, R.D. *Introduction to Instrumental Analysis*. Singapore: McGraw Hill, 1987.

Eland,J.H.D. *Photoelectron Spectra*.London :Butterworths, 1984.

Douglas A.Skoog, Donald M West and James F Holler, Stanley R. Crouch. *Fundamentals of Analytical Chemistry*.New York :Saunders, 2004.

Ewing,W.Galen. *Instrumental Methods of Chemical Analysis*. New York: McGraw Hill,1985.

Bard,A.J and L.R.Faulkner.*Electrochemical Methods- Fundamentals and Applications*.New York:Wiley, 2006.

Fifield, F.W. and Kealy D. *Principles and Practice of Analytical Chemistry*. USA: Blackwell Science, 2004.

Gary D.Christian and James E. O'Reilly.*Analytical Chemistry*.New York :John Wiley, 2004.

JOURNALS

Journal of Analytical Chemistry

Journal of Spectroscopy

Journal of Electrochemistry

WEB RESOURCES

www.annualreviews.org/doi/abs/10.1146/annurev.pc.06.100155.001041

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks(3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks(1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks(5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

ANALYTICAL INSTRUMENTATION - PRACTICAL

CODE:15CH/PC/P542

CREDITS: 2

L T P : 0 0 3

TOTAL HOURS : 39

Unit 1

Colorimetry

1. Estimation of Vitamin- A / Cholesterol
2. Determination of stability constants of complexes

Unit 2

Spectrophotometry

3. Estimation of DNA / RNA
4. Simultaneous determination of caffeine and aspirin

Unit 3

Fluorimetry

5. Estimation of Riboflavin/Thiamine/ Fluorescein

Unit 4

Flame Photometry

6. Estimation of Sodium /Potassium

Unit 5

Thin Layer Chromatography

7. R_f determination and separation of a mixture of amino acids

Unit 6

Infrared spectroscopy [Demonstration]

9. Interpretation of IR spectra

BOOKS FOR REFERENCE

National Institute of Nutrition, ICMR. *A Manual of Laboratory Techniques*. Hyderabad: National Institute of Nutrition, 1983.

Plummer, David. T. *An Introduction to Practical Biochemistry*. New Delhi: Tata McGraw Hill, 2000.

Sadasivam, S. and Manickam A. *Biochemical Methods*. New Delhi: New Age

International, 1996.

Venkateswaran, V., Veerasamy, R. Kulandaivelu A. R. *Principles of Practical Chemistry*. New Delhi: Sultan Chand, 1997.

END SEMESTER EXAMINATION:

Total Marks : 50

Duration : 3 hours

Procedure = 10 (marks)

Viva voce = 10 (marks)

Reported value = 30 (marks)

Continuous assessment Internal:

Class Work = 30 (marks) – inclusive of *viva*

CA Test = 20 (marks)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

DISSERTATION

CODE: 15CH/PC/DI49

CREDITS: 9

GUIDELINES FOR DISSERTATION

Project should be done individually. Each student will choose a topic of her interest and the student will be assigned to a supervisor.

The project will require practical work with the submission of a project report. It should include experimental lab work. The duration of the project work is between 3 and 6 months

The project report should be submitted in the prescribed format containing a minimum of 50 pages. References should not be counted with the main pages. The report should be enhanced with graphs, spectra, tables and or photographs.

Each candidate has to give three periodical reviews to the internal guide on the scheduled dates prescribed by the department.

Each candidate can prepare 4 hard copies of the thesis. 1 copy for the candidate and 3 copies must be submitted to the department. The project should be submitted on the scheduled date prescribed by the Department. The student should appear for Viva-voce before a panel comprising the External Examiner, the supervisor and the Head of the Department.

GUIDELINES FOR EVALUATION

The maximum marks for the dissertation is 200 and **this will be converted to 100marks by Controller of Examination**

Internal Evaluation: 100

* Attendance, log book, experimental work and project report

External Evaluation: 100

* Project report and *viva voce*

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

NANOCHEMISTRY

CODE: 15CH/ PE/NC14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To study the top-down and bottom-up approaches to nanochemistry
- To describe methods by which nanoscale manufacturing can be enabled
- To discuss the concept and context of nanotechnology within society

Unit 1

Introduction (10 hrs.)

- 1.1 Concepts of Nanoscience and Nanotechnology
- 1.2 Classification of Nano materials, Properties and Applications
- 1.3 Self assembly – Materials and Molecules, Self Assembled Monolayers, (SAM) and
- 1.4 Soft lithography
- 1.5 Nanowires and Nanomachines, Techniques used in Nanochemistry and Nanomanipulation

Unit 2

Fabrication of Nanoparticles (13 hrs.)

- 2.1 Techniques for Synthesis of Nanophase Materials - sol-gel synthesis , Electrodeposition, Inert gas condensation, CVD, PVD, mechanical alloying
- 2.2 Properties of Nanophase materials –Size effects-Kinetics and Thermodynamic Features of Nano materials

Unit 3

Nanocomposites and Metal Atoms (12 hrs.)

- 3.1 Introduction, Polymer as Matrix, Nylons, Polystyrene, Epoxyresins, Nanomaterials as Fillers – Nanofibre and Nanoclays
- 3.2 Fabrication and Processing of Composites, Nanostructured Materials, Applications of Nanocomposites
- 3.3 Techniques used in the Synthesis of Pure Metals – Gold, Silver and Cobalt. Characterisation- Surface Plasmon Resonance and its Application

Unit 4

Characterization of Nanophase Materials (12 hrs.)

- 4.1 Fundamentals of the Techniques – Experimental Approaches and Data Interpretation
- 4.2 Applications/limitations of X-ray Characterization: – X-ray sources – Wide angle, Extended X-ray absorption technique
- 4.3 Electron Microscopy: SEM/TEM – High Resolution Imaging – Defects in Nanomaterials, Electron Spectroscopy – XPS/UPS, AES
- 4.4 Prospects of Scanning Probe Microscopes (AFM, STM)

Unit 5

Application of Nanomaterials

(5 hrs.)

Applications of nanomaterials in electronics and sensors, Nanosensors based on optical properties and quantum size effects. Interaction between biomolecules and nanoparticle surfaces

TEXT BOOKS

Pradeep, T. *Nano: The Essentials - Understanding Nanoscience and Nanotechnology*. New Delhi: Tata McGraw Hill, 2007.

Rao, Ramachandra, SubraSingh. *Nanoscience and Nanotechnology-Fundamentals to Frontiers*, New Delhi: John Wiley, 2013.

Rao, C.N.R., Muller, Achim, Cheetham, K. Anthony. *The Chemistry of Nanomaterials-Synthesis, Properties and Applications*. New York : Wiley-VCH, 2004.

Wilson, M., K. Kannangara, G. Smith, M. Simmons and B. Rague. *Nanotechnology: Basic Science and Emerging Technologies*. New York: CRC Press, 2002.

BOOKS FOR REFERENCE

Atkins, Peter, T. Overton, J. Rourke, M. Weller and F. Armstrong, *Shriver and Atkins' Inorganic Chemistry*. Chennai: Oxford University Press, 2006.

Brechigneae, C., P. Houdy, M. Lahmai. *Nanomaterials and Nanochemistry*. Berlin: Springer, 2007.

Kenneth, J. Klabunde. *Nanoscale Materials in Chemistry*. New York: John Wiley, 2001.

Poole, C.P. and F.J. Owens. *Introduction to Nanotechnology*. Hoboken: Wiley-Interscience, 2003.

Ratner, M. and D. Ratner. *Nanotechnology- The Next Big Idea*. New York: Prentice Hall, 2003.

Steed, J. W., D. R. Turner, K. Wallace. *Core Concepts in Supramolecular Chemistry and Nanochemistry*. New York : Wiley, 2007.

JOURNALS

Nanoletters

Journal of composite Materials

Surface science

ACS Nano

Nature Nanotechnology

Advanced Materials

Nanoscale

Nanotechnology

WEB RESOURCES

[http://sphinxesai.com/vol3.no2/chem/chempdf/CT=03\(534-538\)AJ11.pdf](http://sphinxesai.com/vol3.no2/chem/chempdf/CT=03(534-538)AJ11.pdf)

http://www.ijscce.org/attachments/File/Vol-1_Issue-6/F0342121611.pdf

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks (3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third component tests:

List of evaluation modes:

Quiz,

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks(5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600086

M.Sc. DEGREE: BRANCH IV- CHEMISTRY

SYLLABUS

(Effective from the academic year 2015 – 2016)

PHYTOCHEMISTRY

CODE: 15CH/PE/PY14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce the concepts of phytochemistry
- To enable the students to gain knowledge about the various methods involved in the extraction and isolation of plant products

Unit 1

Overview of Natural Product Isolation (10 hrs.)

- 1.1 Extraction Techniques-Counter Current Extraction, Supercritical Fluid Extraction, Solid Phase Extraction, Microwave Assisted Extraction, Ultrasound Extraction (Sonication),Phytonics Process, Parameters for Selecting Appropriate Extraction Method, Steps in Extraction Process (Size Reduction, Extraction, Filtration, Concentration and Drying)
- 1.2 Essential Oil Extraction: Distillation (Mechanism and Types), Expression Methods, EnfleurageandDefleurage. Modern Methods of Essential Oil Extraction, SCF
- 1.3 Non-Chromatographic Separation Techniques: Fractional Distillation, Fractional Liberation, Sublimation, Chemical Derivatization, Fractional Crystallization, Centrifugation, Froth Floatation Techniques
- 1.4 Chromatographic Techniques: Use of HPLC and Column in Isolation of Natural Products

Unit 2

Phytochemical Screening of Crude Drugs (13hrs.)

- 2.1 Solvent Extraction: Extraction, Isolation, Purification of Alkaloids: Piperine, Ergometrine, Glycosides: Rhein, Flavonoids: Green Tea Flavonoids, Terpenoids: Taxol, Saponins: Diosgenin
- 2.2 Supercritical Fluid Extraction: Capsaicinoids, Flavonoids, Resveratrol (Vitis Vinifera), Astaxanthin (Red Yeast) andMycotoxins

Unit 3

Structural Elucidation of Phyto Constituents(10 hrs.)

GlycerrhizinicAcid, Morphine, Pilocarpine, Ergometrine-Structural Elucidation by Physical, Chromatographic and Spectroscopic Methods of Characterization

Unit 4**Standardization of Herbal Drugs (9 hrs.)**

- 4.1 Sources of Variation in Chemical Make-Up of Plant Derived Drugs:
Genotypic, Ecotypic and Biotypic Variations and variations resulting during Processing and Storage
- 4.2 Conventional Methods used in Herbal Drug Standardization and their Limitations. WHO Parameters used in Herbal Drug Standardization;
- 4.3 Overview of New Approaches (System Biology Approach; Phytometabolomics, DNA Micro-Array)

Unit 5**Pharmacological Screening Methods (10 hrs.)**

Brief Introduction to Pharmacological Screening Methods with Examples of following Category of Medicinal Herbs: Hepatoprotectives, Anti-diabetics, Anti-asthmatic, Hypolipidemics, Antioxidants, Antiinflammatory, Analgesics and Anti-cancer

TEXT BOOKS

Chatwal, G.R. *Organic Chemistry of Natural Products -Vol. I and II*. New Delhi: Himalaya, 2010.

Finar, I.L. *Organic Chemistry: Stereochemistry and the Chemistry of Natural Products*, London: Pearson, 2005.

BOOKS FOR REFERENCE

Evans, W. C., G. E. Trease. *Trease and Evan's Pharmacognosy*. USA: W.B. Saunders, 2002.

Rangari, V.D. *Pharmacognosy & Phytochemistry (Vol I)*. Nashik: Career Publications, 2009.

Rangari, V.D. *Pharmacognosy & Phytochemistry (Vol II)*. Nashik: Career Publications, 2009.

Satyajit, D. Sarker, Zahid Latif, Alexander I. Gray. *Natural Products Isolation*. New Jersey: Humana Press, 2006.

JOURNALS

Biological and Pharmaceutical Bulletin
Indian Drugs
Indian Journal of Pharmacology
Journal of Chromatography
Journal of Ethno pharmacology

WEB RESOURCES

http://www.ga-online.org/links_en.html

<http://www.britannica.com/EBchecked/topic/458909/phytochemistry>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks(3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks(5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks(2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086.

Post Graduate Elective Course Offered by the Department of Chemistry for

M.A. / M.Sc. / M.Com Degree Programme

SYLLABUS

(Effective from the Academic Year 2015- 2016)

MEDICINES AND HEALTH CARE

CODE: 15CH/PE/MH24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To give an overview of medicines in day to day life - a field of interest to humanity
- To enlighten students on the different types of drugs used for the treatment of various diseases

Unit 1

General Introduction to Drugs (5 hrs.)

- 1.1 Terminology-Pharmacy, Pharmacology, Pharmacodynamics, Pharmacokinetics, Antimetabolites, Mutation, Pharmacognosy, Toxicology, Pharmacotherapeutics, Chemotherapy, therapeutic index
- 1.2 Chemical Classification of Drugs
- 1.3 Diseases – Communicable and Non Communicable, Pathogens – Bacteria, Virus, Fungi, Protozoans

Unit 2

Common Diseases and their Treatment by Drugs (10 hrs.)

- 2.1 Common Diseases: Insect borne -Malaria, Air Borne - Whooping Cough, measles, common cold and TB. Waterborne -Cholera, Typhoid, Dysentery- Etiology, Symptoms, Prevention and Remedy
- 2.2 Common Disorders of the Digestive System –Hepatitis A and B; Respiratory system- Asthma; Nervous system- Epilepsy. Prevention and Treatment.
- 2.3 AIDs, HIV1, HIV 2 – Awareness, Prevention and Treatment
- 2.4 Fungal Dermatitis – Anti fungal Drugs

Unit 3

Blood and Hematological Agents (10 hrs.)

- 3.1 Blood Pressure, Hypertension-Cause, Diet, Prevention. Antihypertensive Agents - Aldomet, Reserpine
- 3.2 Clotting of Blood- Mechanism, Haematological Agents, Anaemia –Causes and Control- Antianaemic Drugs
- 3.3 Cardiovascular Diseases- Cardiac Glycosides-Digoxin, Antiarrhythmic Drugs-Quinidine- Dosage, Therapeutic uses-Calcium Blockers
- 3.4 AntianginalAgents- Nitriles, Vasodilators-Sodium Nitroprusside, Papaverine, Nicotinic Acid

Unit 4

Drugs in Daily Life

(10 hrs.)

- 4.1 Anaesthetics- Types-General, Local, Intravenous – (Ether, CHCl₃, Halothane, Nitrous Oxide, Cocaine), - Advantages and Disadvantages
- 4.2 Antiseptics and Disinfectants- (Phenols, Chloramines, Bleaching Powder, Dyes-Crystal Violet)
- 4.3 Analgesics, Antipyretic and Anti-Inflammatory Agents- Narcotic and Non-Narcotic Drugs-Morphine, Source, Activity and uses – (Pethadine, Aspirin, Paracetamol, Phenyl Butazone, Brufen)

Unit 5

Drugs of Importance

(17 hrs.)

- 5.1 Sulpha Drugs – Use of Sulpha Drugs-Limitations-(Sulphapyridine and Sulphadiazine)
- 5.2 Antibiotics-Classification - Therapeutic uses of Chloramphenicol, Penicillin-Potency of the Drug, (Streptomycin, Tetracyclines, Erythromycin)
- 5.3 Antipsychotic Drugs- Tranquiliser (Piperazine, Benzamides), Adverse effects; Antidepressants-Sedatives and Hypnotics- (Barbiturates)
- 5.4 Diabetes – Types – Hypoglycemic Agents, Sugar Substitutes.Cancer -Causes - Types – Treatments - Antineoplastic Drugs - Antimetabolites and Plant Products; Hormone Therapy and AdrenoCorticosteroids, Radioactive Isotopes

TEXTBOOKS

Craig, R., Robert. E., Stitzel. *Modern Pharmacology*.USA: Little Brown, 2004.

Ghosh,Jayashree. *A Text book of Pharmaceutical Chemistry*. New Delhi: S.Chand ,1997.

BOOKS FOR REFERENCE

Sundari, K. Bagavathi.*Applied Chemistry*.Chennai: MJP,2006.

David, A. Williams, Thomas L. Lemke. *Foye's Principles of Medicinal Chemistry*,USA: Lippincott Williams & Wilkins, 2005.

Graham, Patrick. *An Introduction to Medicinal Chemistry*.Oxford : Oxford University Press, 2001.

John, H. Block, John M. Beale, Jr. *Organic Medicinal and Pharmaceutical Chemistry*. USA: Lippincott Williams & Wilkins, 2004.

Sujatha, V. Bhat.*Biomaterials*.Chennai :Narosa, 2005.

JOURNALS

Journal of Drug Issues

Journal of Medicinal Chemistry

Journal of Medicinal Chemistry Research

WEB RESOURCES

<http://chem2.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks(3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI-600086.

Post Graduate Elective Course Offered by the Department of Chemistry for

M.A. / M.Sc. / M.Com Degree Programme

SYLLABUS

(Effective from the Academic Year 2015- 2016)

FOOD CHEMISTRY AND NUTRITION

CODE: 15CH/PE/FN34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To equip the students on the effective usage of the food guide
- To educate on the chemistry of different constituents of food like carbohydrates, proteins and vitamins
- To give an introduction about the various nutrients, their nutritional value, functions and storage

Unit 1

Introduction to Food Chemistry and Nutrition (12hrs.)

- 1.1 Food Guide- Basic Five Food Groups, Usage of the Food Guide
- 1.2 Water-Sources and Functions, Water Activity and Water Balance , Moisture Content in Foods
- 1.3 Introduction to Nutrition –Definition of Nutrition and Nutrients, Interrelationship between Nutrition and Health, Malnutrition. Basal Metabolism and Determination of BMR
- 1.4 Recommended Dietary Allowances (RDA) - Factors affecting RDA, General Principles of Deriving RDA, Determination of RDA of Different Nutrients, Practical Applications of RDA

Unit 2

Carbohydrates and Lipids (10 hrs.)

- 2.1 Sources, Classification, Functions and Recommended Dietary Allowance of Carbohydrates. Glycemic index. Artificial Sweetening Agents
- 2.2 Effect of Cooking on Carbohydrates and Storage of Carbohydrates
- 2.3 Lipids: Sources, Chemical Classification, Functions and Recommended Dietary Allowance of Fats. Fats in the Body and Food, Essential Fatty Acids, Dietary Fat and Coronary Heart Disease

Unit 3

Minerals and Vitamins (10 hrs.)

- 3.1 Sources, Functions, Deficiency and Recommended Dietary Allowance of following Minerals: Calcium, Iron, Iodine and Phosphorous

- 3.2 Vitamins- Classification, Sources, Functions and Deficiency (Elementary Treatment) of the following Vitamins: Fat Soluble Vitamins- A, D, E and K , Water Soluble Vitamins- Ascorbic Acid, Thiamine, Riboflavin, Niacin, other members of B-Complex such as B₆, Folic Acid and B₁₂
- 3.3 Effect of Cooking on Vitamins and Minerals

Unit 4

Proteins (10 hrs.)

- 4.1 Sources, Classification, Chemical Composition, Functions, Nutritional Classification and Recommended Dietary Allowance of Proteins
- 4.2 Amino Acids: Specific Functions and Nutritional Classification of Amino Acids
- 4.3 Protein Energy Malnutrition (PEM) – Marasmus and Kwashiorkor. Steps that can be taken to aid in the Prevention of PEM

Unit 5

Role of International and National Agencies in Combating Malnutrition (10 hrs.)

- 5.1 International Agencies- World Health Organisation, Food and Agriculture Organization, United Nations Children's Fund, CARE
- 5.2 National Agencies- Indian Council of Agricultural Research (ICAR), Indian Council of Medical Research (ICMR), National Institute of Nutrition, Food and Nutrition Board, Central Food Technological Research Institute
- 5.3 Nutrition Education- Methods used in Nutrition Education

TEXTBOOKS

Fennema, R. Owen. *Food Chemistry*. New York: Marcel Decker, 2007.

Srilakshmi, B. *Nutrition Science*. New Delhi: New Age International, 2012.

BOOKS FOR REFERENCE

Potter, N. Norman. *Food Science*. New Delhi: CBS, 2007.

Mayer, William Hogland. *Food Chemistry*. New Delhi: CBS, 2009.

Manay, Shankunthala N., Shadaksharswamy, M. *Food – Facts and Principles*. Chennai : New Age International, 2001.

JOURNALS

Journal of Nutrition

Journal of Food Science

Proceedings of Nutrition Society of India

WEB RESOURCES

www.wadsworth.com/nutrition/prod/allprod.html

www.ninindia.org

<http://www.nalusda.gov/fnic.html>

www.who.org

PATTERN OF EVALUATION

CONTINUOUS ASSESSMENT:

Total Marks: 50

Duration: 90 mins.

Section A – 11 x 1 = 11 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 3 x 8 = 24 Marks(3 out of 4 to be answered)

Section C – 1 x 15 = 15 Marks (1 out of 2 to be answered)

Third Component Tests:

List of evaluation modes:

Quiz

Seminars

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks(2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.Sc. DEGREE: BRANCH IV - CHEMISTRY

SYLLABUS

(Effective from the academic year 2015- 2016)

INTRODUCTION TO FORENSIC SCIENCE

CODE: 15/CH/PI/IF24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To equip the students with the knowledge of forensic science
- To give an insight into diagnostic testing and to encourage the students to work and pursue research in Forensic Science.

Unit 1

Forensic Science

- 1.1 Brief History of Forensic Science. Function of Forensic Science in the Laboratory
- 1.2 Processing the Scene of Crime and Forensic Photography

Unit 2

Physical Evidence (Tracks and trails)

- 2.1 Physical Evidence –Classification. Significance of Finger Prints and Palm Prints, Foot Prints, Shoe and Tyre Impression
- 2.2 Trace Evidence-Soil, Glass, Paint
- 2.3 Biological Material-Blood, Hair, Bones, Teeth-Application of DNA Profiling

Unit 3

Toxicology and Analysis Techniques

- 3.1. Radioactive Decay Reactions and Neutron Activation Analysis
- 3.2 Atomic Absorption Spectroscopy and X-Ray Analysis to detect Samples
- 3.3 Poisons-Classification. Symptoms and Antidotes for some common Poisons

Unit 4

Tracking Forgery

- 4.1 Disputed Documents-Types-Document Examination. Use of UV Rays in Detection of Counterfeit Currency and Stamp Paper
- 4.2 Identification of Forgery in Hand Written and Typed Document
- 4.3 Paper Chromatography of ink

Unit 5

Fire-Arson and Explosives

- 5.1 Characteristics of Accidental Fires
- 5.2 Arson-Evidence from Fire affected area to detect the cause of the Fire
- 5.3 Explosive-Classification-Evidence from the scene of explosion to detect the cause of explosion

TEXT BOOKS

Vapuly, A .K.*Forensic Science its Approach in Crime Investigation*.Hyderabad: Paras, 2006.

Sharma, B.R.*Forensic Science in Criminal Investigation and Trials*.New Delhi: Universal, 2006.

BOOKS FOR REFERENCE

Russel, Max, M.Houck, Jay A Siegel.*Fundamentals of Forensic Science*.Amsterdam: Elsevier, 2006.

Henry, C. Lee,TimothyPalmbach, Marilyn C.Miller.*Henry Lee's Crime Scene Hand book*. Amsterdam:Elsevier, 2001.

JOURNALS

Journal of Forensic Science
Journal of Forensic Research
Forensic Science Communication
Journal of Forensic Psychology

WEB RESOURCES

<http://www.all-about-forensic-science.com/>
<http://dci.sd.gov/ForensicLab/ForensicWebsites.aspx>

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks(All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.Sc. . DEGREE: BRANCH IV - CHEMISTRY

SYLLABUS

(Effective from the academic year 2015- 2016)

CHEMISTRY OF NATURAL PRODUCTS

CODE: 15CH/PI/NP24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To understand the origin and classification of natural products
- To appreciate the chemical structure of physiological functions of natural products and their derivatives
- To think critically about the use of herbal remedies and the potential of drug development from natural products

Unit 1

Amino Acids Peptides and Proteins

- 1.1 Introduction to Amino Acids
- 1.2 General Methods of Preparation and Properties of Amino Acids
- 1.3 Naturally Occurring Peptides and Nomenclature of Poly Peptides
- 1.4 General Principle of Poly Peptide Synthesis
- 1.5 Representation of Poly Peptides. Determination of Structure of Peptides
- 1.6 Classification of Proteins. Primary , Secondary and Tertiary Structure of Proteins

Unit 2

Steroids

- 2.1 Nomenclature and Stereochemistry(Configuration of Substituent, Ring and Side Chain)
- 2.2 Classification of Sterols and Related Colour Reactions
- 2.3 Cholesterol- Occurrence, Isolation, Clinical Significance, Structure Elucidation and Total Synthesis
- 2.4 Steroid Hormones- Synthesis of Estrogen and Progesterone

Unit 3

Terpenoids

Source and Extraction

- 3.1 Classification and Isolation
- 3.2 General Methods of Structure Determination of Terpenoids
- 3.3 Structure Elucidation of Carvone-D, Longifolene, Abetic Acid and β -Carotene

Unit 4

Alkaloids

- 4.1 Occurrence and Functions
- 4.2 Classification and Nomenclature
- 4.3 General Methods of Structure Determination and Pharmaceutical Applications
- 4.4 Structure Elucidation of Conine, Nicotine and Caffeine

Unit 5

Plant Pigments

- 5.1 Representation of Flavonoids, Flavones, Flavonols, and Isoflavones
- 5.2 Glycosides of Flavones and Flavonols
- 5.3 General Methods of Structure Determination of Flavonoids
- 5.4 Structure Elucidation of Apigenin and Quercetin
- 5.5 Anthocyanidins and Anthocyanins- General Methods of Structure Determination
- 5.6 Structure Elucidation of Cyanidin and Hirsutidin
- 5.7 Structural Relationship between Flavonols (Quercetin), Anthocyanidin (Cyanidin) and Catechins (Epicatechin)

TEXT BOOKS

Bhat, S.V., B.A. Nagasampagi, M.Siva Kumar. *Chemistry of Natural Products*. New Delhi : Narosa, 2006.

Ahluwalia, V.K., Sanjiv Kumar, Lalita S. Kumar. *Chemistry of Natural Products*. New Delhi : CRC Press, 2007.

BOOKS FOR REFERENCE

Stanforth, P. Stephen. *Natural Product Chemistry at a Glance*, Hoboken: Wiley Blackwell, 2006.

JOURNALS

Journal of Natural Products
Natural Product Research
Journal of Asian Natural Products
Indian Journal of Natural Products and Resources

WEB RESOURCES

<https://www2.chemistry.msu.edu/faculty/reusch/virttxtjml/biomol.htm>

<http://dnp.chemnetbase.com/intro/>

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours

Section A – 20 x 1 = 20 Marks (All questions to be answered, questions to be of objective type: MCQ, fill in the blanks, T/F, Match the following and answer in a line or two)

Section B – 5 x 8 = 40 Marks (5 out of 7 to be answered)

Section C – 2 x 20 = 40 Marks (2 out of 3 to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
M.COM DEGREE
SYLLABUS
(Effective from the academic year 2015-2016)
MARKETING MANAGEMENT

CODE: 15CM/PC/MM14

CREDITS: 4

LTP: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To create an understanding of the theoretical and practical concepts of marketing
- To familiarize students with the process of entering markets, establishing profitable positions and building loyal consumer relationship

Unit 1

Understanding Marketing Management (10 hrs.)

- 1.1 Marketing in the 21st Century – Core Concepts
- 1.2 Creating Customer Satisfaction, Value and Retention

Unit 2

Opportunities in the Market Place (15 hrs.)

- 2.1 Scanning the Marketing Environment
- 2.2 Marketing Information System to measure Demand
- 2.3 Market Segmentation – Criteria and Types

Unit 3

Market Oriented Strategies (15 hrs.)

- 3.1 Developing a Positioning Strategy
- 3.2 PLC – Marketing Strategies
- 3.3 New Product Development Decision Process- Ideas, Concepts, Commercialization and Consumer Adoption

Unit 4

Pricing and Promotions (15 hrs.)

- 4.1 Pricing – Factors, Policy and Types of Pricing
- 4.2 Promotional Mix – Advertising, Sales Promotion, Publicity, Public Relations, Personal Selling and Direct Marketing

Unit 5

Recent Trends in Marketing (10 hrs.)

- 5.1 Digital Marketing – Meaning and Types
- 5.2 Social Marketing, Green Marketing
- 5.3 Relationship Marketing

BOOK FOR STUDY

Kotler Philip. *Marketing Management*. New Delhi : Prentice Hall of India, 2011.

BOOKS FOR REFERENCE

John, Wilmshurst. *Fundamentals and Practice of Marketing*. New Delhi: Viva Books, 2011.

Johansson J.K. *Global Marketing*. 4th edition. New Delhi: Tata, McGraw Hill, 2010.

Keegan W. J. *Global Marketing Management*. New Delhi: Prentice Hall of India, 2013.

Raju M.S. *Fundamentals of Marketing*. New Delhi: Excel Books, 2008.

Saxena Rajan. *Marketing Management*. New Delhi: Tata McGraw Hill, 2005.

Staton, William J. Etzel, Michael J. and Walker Bruce J. *Fundamentals of Marketing*. McGraw Hill (International edition) Inc, 2004.

JOURNALS

International Journal of Research in Marketing

Indian Journal of Marketing

Journal of Marketing Education

WEB RESOURCES

<http://smallbusiness.chron.com>

<http://productlifecyclestages.com>

<http://www.innovationcoach.com>

<http://www.marketing-schools.org>

<http://www.businessdictionary.com>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20(from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminars

Assignments

Case Studies

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.COM. DEGREE

SYLLABUS

(Effective from the academic year 2015 -2016)

STRATEGIC HUMAN RESOURCE MANAGEMENT

CODE: 15CM/PC/SH14

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To provide a comprehensive knowledge on the concepts of Human Resource Management
- To familiarize students with the contemporary features of Human Resources

Unit 1

Introduction

(10 hrs.)

- 1.1 Nature and Scope of Human Resource Management
- 1.2 Functions of Human Resource Management - Procurement, Development, Compensation, Integration, Maintenance

Unit 2

Recruitment and Placement

(15 hrs.)

- 2.1 Human Resource Planning – Objectives, Importance and Process
- 2.2 Job Analysis – Job Description, Job Specification
- 2.3 Recruitment – Need, Importance, Sources
- 2.4 Selection Procedure

Unit 3

Creating Strategic HRM System

(15 hrs.)

- 3.1 Strategic Human Resource Management – Roles - Execution Role and Formulation Role
- 3.2 Creating the Strategic Human Resource Management System

Unit 4

Strategies in Maintaining and Retaining HR

(15 hrs.)

- 4.1 Employee Training – Methods
- 4.2 Executive Development Programs - Types
- 4.3 Employee Counseling
- 4.4 Mentoring

Unit 5

Tools for Improving Managerial Effectiveness

(10 hrs.)

5.1 Tools

- 5.1.1 TQM
- 5.1.2 Quality Circles
- 5.1.3 Kaizen

5.2 Challenges of Human Resource Management

- 5.2.1 The Effect of Inter-Country Differences on Human Resource Management
- 5.2.2 Recent Challenges

BOOK FOR STUDY

Aswathappa, K. *Human Resource and Personnel Management*. New Delhi: Tata McGraw , 2007.

BOOKS FOR REFERENCE

Armstrong, Michael. *A handbook of Human Resource Management*. U.K: Kogan Page, 2013.

Dessler Gary. *Human Resource Management*. New Delhi: Pearson Education, 2014.

Flippo, Edwin B. *Personnel Management*. Singapore: Pearson Education Co, 2014.

Gupta, C. B. *Human Resource Management*. New Delhi: Sultan Chand, 2014.

Khanka, S.S. *Human Resource Management*. (Text and Cases), New Delhi: S. Chand, 2014.

Prasad, L.M. *Human Resource Management*. New Delhi: Sultan Chand, 2014.

Price, Alan. *Principles of Human Resource Management*. U.K: Blackwell, 2014.

Rao, V.S.P. *Human Resource Management (Text and Cases)*. New Delhi: Excel Books, 2002.

JOURNALS

International Journal of Management Reviews

The Human Resource Management Review

Human Resource Management International Digest

Human Resource Management Journal.

WEB RESOURCES

<http://hrcouncil.ca/hr-toolkit/planning-strategic.cfm>

<http://www.hrware.com/recruitment/88-2/>

<http://www.educationobserver.com/forum/showthread.php?tid=12165>

<http://managementhelp.org/training/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20(from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminars

Assignments

Case Studies

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

REGULATORY ASPECTS OF BUSINESS

CODE: 15CM/PC/RB14

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To provide an understanding of commercial and economic laws
- To expose the students to the Legal perspective and its practices

Unit 1

Introduction

(13 hrs.)

- 1.1 Introduction to Legal Systems in India and its Administration
- 1.2 Law Relating to Transfer of Property
 - 1.2.1 Types of Properties- Movable and Immovable Property
 - 1.2.2 Properties which cannot be Transferred
 - 1.2.3 Provisions Relating to Sale, Mortgage, Charge, Lease, Gift and Actionable Claim

Unit 2

The Limited Liability Partnership Act 2008 (LLP)

(12 hrs.)

- 2.1 Salient Features of LLP
- 2.2 Difference between LLP, Partnership and a Company
- 2.3 LLP Agreement - Nature of LLP- Partners and Designated Partners;
- 2.4 Incorporation by Registration
- 2.5 Extent and Limitation of Liability of LLP and Partners
- 2.6 Financial Disclosures, Annual Return, Taxation of LLP
- 2.7 Conversion to LLP - Winding up and Dissolution

Unit 3

Law Relating to Intellectual Property Rights

(15 hrs.)

- 3.1 Concept and Development of Intellectual Property Law in India
- 3.2 Law and Procedure Relating to Patents, Trademarks and Copyrights -
- 3.3 Overview of Laws Relating to other Intellectual Property Rights
- 3.4 Enforcement of Intellectual Property Rights

Unit 4

Information Act 2005

(13 hrs.)

- 4.1 Right to Information, Obligations of Public Authorities, Request for Obtaining Information and Disposal of Request
- 4.2 Exemption from Disclosure of Information, Grounds for Rejection to Access
- 4.3 Central Information Commission-Powers and Functions.

Unit 5

Other Related Laws

(12 hrs.)

5.1 Consumer Protection Act 1986

Consumer Protection in India- Rights of Consumers- Consumer Disputes
Redressal Agencies

5.2 Information Technology Act 2000

Provisions Relating to E-Contract, E-Form, Electronic Record, Digital Signature
and Data Security

5.3 Foreign Exchange Management Act 1999 (FEMA)

5.3.1 Objectives – Types of Transactions

5.3.2 Foreign Direct Investment in India and Abroad

5.3.3 Acquisition and Transfer of Immovable Property in India

5.3.4 Realisation and Repatriation of Foreign Exchange

BOOK FOR STUDY

Pillai, R.S.N Bagavathi. *Legal aspects of Business*. S.Chand . New Delhi:

BOOKS FOR REFERENCE

Bhandari, Munish Professional. *Approach to Corporate Laws and Practice*. New Delhi: Bharat
Law House.

Sharma, J. P. and Sunaina Kanojia . *Business Laws*. New Delhi: Ane Books.

Singh, Avtar. *The Principles of Mercantile Law*. Lucknow: Eastern Book , 2011.

Wadehra, B. L. *Law Relating to Patents, Trade Marks, Copyright, Designs & Geographical
Indications*. India: Universal law, 2000.

Note : Latest edition of the readings may be used

JOURNALS

Journal of Intellectual Property Rights 2007 and 2009

Indian journal of law and technology

Symbiosis contemporary law journal

WEB RESOURCES

www.unesco.org/new/en/unesco/

www.lawctopus.com/

www.indialawworld.Co

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20(from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminars

Assignments

Case Studies

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

ACCOUNTING FOR MANAGERIAL DECISIONS

15CM/PC/AM14

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE:

- To enable students to understand the process of decision making
- To provide an understanding of the costing, budgeting and evaluation mechanisms involved in decision making

Unit 1 (13 hrs.)

1.1 Marginal Costing

- 1.1.1 Meaning of Marginal Costing
- 1.1.2 Difference between Marginal Costing and Absorption Costing – An Analysis and Comparison
- 1.1.3 Cost Volume Profit Analysis – Applications
- 1.1.4 Break Even Analysis
- 1.1.5 Application of Marginal Costing in Decision Making

1.2 Relevant Costing

- 1.2.1 Relevant Cost and Revenue
- 1.2.2 Cost Concept
- 1.2.3 Outsourcing Decisions

Unit 2 (12 hrs.)

Standard Costing and Variance Analysis

- 2.1 Types of Standards – Need
- 2.2 Variance Analysis – Material, Labour, Overhead and Sales Variances

Unit 3 (13 hrs.)

Budgeting

- 3.1 Meaning, Role and Objectives of Budgeting
- 3.2 Types of Budgets – Production, Purchases, Sales, Cash, Flexible and Master Budget
- 3.3 Zero Based Budget and Performance Budgeting - Requisites and Steps in Implementation

Unit 4
Performance Evaluation (15 hrs.)
4.1 Ratio Analysis
4.2 Funds Flow Analysis
4.3 Cash Flow Analysis

Unit 5
Network Analysis (12 hrs.)
5.1 Calculation of EST, EFT, LST, LFT, Free Float, Total Float
5.2 PERT and CPM
5.3 Calculation of Expected Duration and Variance
5.4 Calculation of Probability

BOOK FOR STUDY

Maheswari, S.N. *Principles of Management Accounting*. New Delhi : Sultan Chand & Sons, 2012.

BOOKS FOR REFERENCE

Ashish, K. Bhattacharya. *Principles and Practice of Cost Accounting*. New Delhi: Prentice Hall of India.

Atkinson et al. *Management Accounting : Information for Decision Making and Strategy Execution*. Pearson Education.

Charlet, Horngren. T. and Srikanth Datar and George Foster. *Cost Accounting – a managerial emphasis*. New Delhi: Prentice Hall of India.

Jain, S.P. & K.L. Narang. *Cost and Management Accounting*. New Delhi : Kalyani Publishers, 2014.

Murthy, Guruswamy. *Management Accounting*. Chennai : Margham, 2011.

Sharma, R.K. and Gupta. *Management Accounting*. New Delhi: Kalyani

JOURNALS

Cost Accounting Standards - The ICWA of India,
Management Accountant - The ICWA of India,
Indian Journal of Finance

WEB RESOURCES

icwajournal@hotmail.com

www.accaglobal.com

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50 Duration: 90 mins

Section A – 3 x 10=30 Marks (from a choice of four questions-Problems)

Section B - 1x20=20 Marks (from a choice of two questions – Problems)

Third Component:

List of Evaluation Modes

Problem solving 20 Marks

A project on application of marginal costing and relevant costing techniques 15 Marks

Case study 15 Marks

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60 Marks (from a choice of eight questions – 3 theory and 5 problems)

Section B – 2x20= 40 Marks (from a choice of four questions – Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

SERVICE MARKETING

CODE: 15CM/PC/SM24

CREDITS: 4

LTP: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarize students with the service sector operations and its diversity.
- To create an awareness of how service sectors are becoming a primary source of wealth and trade.
- To increase the value of learning experience by becoming familiar with the challenging and dynamic environment of services.

Unit 1

Introduction

(10 hrs.)

- 1.1 Global Feature and Services.
- 1.2 Marketing Management for Services – Expanding the Marketing Mix
- 1.3 An Integrated Approach to Services Marketing – Servuction Model

Unit 2

Managing Demand and Capacity

(15 hrs.)

- 2.1 Nature of Demand and Patterns of Demand for Services
- 2.2 Using Marketing Mix to Manage Demand
- 2.3 Balancing Capacity to Demand

Unit 3

Positioning Service

(15 hrs.)

- 3.1 Creating a Competitive Positioning
- 3.2 Steps in Developing a Positioning Strategy – Mission, Vision, Strategic Goals
- 3.3 The Service Gaps – Quality Gap, Performance Gap, Delivery Gap

Unit 4

Managing the Service Encounter

(15 hrs.)

- 4.1 Designing the Interactive Process – Blue Printing
- 4.2 Designing the Physical Environment
- 4.3 Roles of People in the Process

Unit 5

Customer Satisfaction

(10 hrs.)

- 5.1 Customer Expectation – Expectation Hierarchy, Satisfaction Process
- 5.2 Servaqual Dimensions – Key Drives of Quality
- 5.3 Principles of Complaint Management and Service Recovery

BOOKS FOR STUDY

Andrey, Gilmore E. *Service Marketing and Management*. New Delhi : Sage Publishing, 2003.

Jha S.M. *Services Marketing*. Mumbai: Himalaya, 1998.

BOOKS FOR REFERENCE

Lovelock, Christopher. H. *Services Marketing*. USA: Prentice Hall, 2004.

Promod, Batra. *Simple Ways to Manage your Service Customers*. New Delhi: Think Inc, 1997.

Rampal, M.Kand Gupta S.L. *Services Marketing Concepts, Application and cases*. New Delhi: Galgotia , 2003.

Roland, T. Rust, Anthony J, Zahovik, Timothy L. Keinigham. *Services Marketing*. USA: Addison – Wesley Longman Inc, 1999.

Shajahan S. *Services Marketing Concepts, Practices and cases*. Mumbai: Himalaya, 2001

Sinha, P.K Sahoo S.C. *Services Marketing – Text and Readings*. Mumbai: Himalaya, 1994.

JOURNALS

International Journal of Research in Marketing
Journal of Services Marketing
Journal of Professional Services Marketing

WEB RESOURCES

<http://www.managementstudyguide.com/>

<http://blog.clientheartbeat.com/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20(from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminars

Assignments

Case Studies

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

CORPORATE GOVERNANCE AND SOCIAL RESPONSIBILITY

CREDITS : 4

L T P : 4 1 0

CODE: 15CM/PC/CR24

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To familiarize students with the issues and practices of corporate governance and corporate social responsibility in the global and Indian context
- To analyse and examine corporate social responsibility as an integral part of corporate sustainability

Unit 1 (15 hrs.)

Corporate Governance - An Overview

- 1.1 Objectives of Corporate Governance
- 1.2 Need and Importance of Corporate Governance
- 1.3 Basis of Corporate Governance Theories – Agency Theory, Stewardship Theory, Stakeholder Theory and Sociological Theory

Unit 2 (12 hrs.)

Corporate Governance Committees and Investor Problems and Protection

- 2.1 Roles and Responsibilities of Board of Directors
- 2.2 Committee, Stakeholder Protection Committee, Compliance and Risk Management Committee
- 2.3 Relationship Between Investor Protection and Corporate Governance

Unit 3 (13 hrs.)

Introduction to Business Ethics

- 3.1 Scope and Objectives of Business Ethics
- 3.2 Globalisation and Business Ethics
- 3.3 Practicing Ethics in Business- Responsibilities towards Employers: Respect for Authority, Collegiality, Loyalty and Confidentiality

Unit 4 (15 hrs.)

Ethical Issues

- 4.1 Ethical Issues in Finance- Issues related to Financial Services, Insider Trading and Takeovers
- 4.2 Ethical Issues in Marketing and Advertising
- 4.3 Whistle Blowing and Whistle Blower's Protection

Unit 5

Corporate Social Responsibility

(10 hrs.)

- 5.1 Meaning , Importance of CSR, Legal Requirements
- 5.2 CSR and Corporate Sustainability
- 5.3 Models of CSR – Archie Carroll

Practical component: Discussion of relevant Case study for each unit

BOOKS FOR STUDY

Andrew Crane Dirk Matten. *Business Ethics*. (Indian Edition), New Delhi: Oxford University Press, 2010.

A.C Fernand. *Corporate Governance – Principles, Policies & Practice*. Pearson ,2009.

Joan R. Boatright. *Ethics and the Conduct of Business*. Pearson Publication, 2012.

BOOKS FOR REFERENCE

Bhanu Murthy, K. V. and Usha Krishna. *Politics Ethics and Social Responsibilities of Business*. New Delhi: Pearson Education,2010.

Bob Tricker. *Corporate Governance-Principles, Policies, and Practice* (Indian Edition). New Delhi :Oxford University Press,2012.

Christine A Mallin. *Corporate Governance* (Indian Edition). New Delhi : Oxford University Press, 2013.

Geeta Rani,D. & R K Mishra. *Corporate Governance-Theory and Practice*. New Delhi: Excel Books, 2009.

Dr. Sanjay Mohapatra & Prof. Sreejesh S. *Case Studies in Business Ethics and Corporate Governance*. Pearson Education.

Sharma,J.P. *Corporate Governance, Business Ethics & CSR*. New Delhi : Ane Book, 2011.

JOURNALS

International Journal of Management Reviews

International Journal on Corporate Strategy and Social Responsibility

SSRN – E Journal

WEB RESOURCES

www.ibscdc.org- Corporate Governance and Business Ethics Case Studies

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminar

Class presentation and group discussion

Case studies

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

FINANCIAL MANAGEMENT AND POLICY

CODE: 15CM/PC/FM24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To enable students to understand the conceptual framework of financial management
- To familiarize students with the analytical techniques used in financial decision making
- To encourage students to apply financial theory to solve real world business complexities

Unit 1

The Nature and Scope of Financial Management (15 hrs.)

- 1.1 Definition, Scope and Functions of Financial Management
- 1.2 Objectives of Firm
 - 1.2.1 Profit Maximization
 - 1.2.2 Wealth Maximization
 - 1.2.3 Value Maximization
- 1.3 Time Value of Money
 - 1.3.1 Compound Interest and Future Values, Present Value of Single Cash Flow and Multiple Cash Flow
 - 1.3.2 Annuities

Unit 2

Investment in Long-Term Assets (15 hrs.)

- 2.1 Nature and Types of Investment Decisions
- 2.2 Investment Evaluation Criteria
 - 2.2.1 Non-Discounted Cash Flow Techniques
 - 2.2.2 Discounted Cash Flow Techniques
- 2.3 Capital Rationing And Mutually Exclusive Projects
- 2.4 Risk Analysis in Capital Budgeting
 - 2.3.1 Probability Assignment
 - 2.3.2 Certainty Equivalent
 - 2.3.3 Sensitivity Analysis

- Unit 3**
Capital Structure (15 hrs.)
- 3.1 Designing Capital Structure
 - 3.1.1 EBIT – EPS Approach
 - 3.1.2 Valuation Approach
 - 3.1.3 Cash Flow Approach
 - 3.2 Practical Consideration in Determining Capital Structure
 - 3.3 Optimal Capital Structure
 - 3.4 Valuation of Securities and Bonds – Simple Problems
- Unit 4**
Cost of Capital (10 hrs.)
- 4.1 Meaning, Significance and Concepts of Cost of Capital
 - 4.2 Cost of Debt and Preference Shares
 - 4.3 Cost of Equity and Retained Earnings
 - 4.4 Weighted Average Cost of Capital
- Unit 5**
Dividend Policy (10 hrs.)
- 5.1 Factors Determining the Dividend Policy of a Firm
 - 5.2 Types of Dividend
 - 5.3 Legal Procedures and Tax Aspects of Dividend

BOOK FOR STUDY

Khan, M.Y. and Jain P.K. *Theory and Problems in Financial Management*. New Delhi: Tata McGraw Hill, 2012.

BOOKS FOR REFERENCE

James, C. Van Horne. *Financial Management and Policy*. Prentice Hall of India.

Maheshwari, S. N. *Financial Management*. New Delhi: Vikas, 2011.

Asish Kalra. *Financial Management*. New Delhi: IGP, 2011.

Pandey, I. M. *Financial Management*. New Delhi: Vikas, 2012.

Ravi, M. Kishore. *Taxmann's Financial Management*. New Delhi: K. L., Taxmann Allied Services, 2012.

Chandra Prasana. *Finance Management Theory and Practice*. New Delhi : Tata McGraw Hill , 2008.

Thulsian, P.C. and Bharath Thulsian C.A. *Financial Management*. New Delhi:S.Chand, 2013.

Jonathan Berek et al. *Financial Management*. Pearson Education.

JOURNALS

Journal of Financial and Quantitative Analysis

Indian Journal of Finance

Journal on risk and financial management

WEB RESOURCES

www.niftp.or.in

www.icmrindia.org

PATTERN OF EVALUATION

Continuous Assessment

Total Marks: 50 Duration: 90 mins

Section A – 3 x 10=30 Marks (from a choice of four questions)

Section B - 1x20=20(from a choice of two questions)

Third Component:

List of Evaluation Modes

Case Studies 20 Marks

Open book test 10 Marks

Assignment 20 Marks

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60 (from a choice of eight questions – 3 theory and 5 problems)

Section B – 2x20= 40 (from a choice of four questions – 2 theory and 2 Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

INDIAN FINANCIAL SYSTEM

CODE: 15CM/PC/IF24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to the concept and practices adopted in the Indian Financial system
- To educate students about the practical relevance and importance of the Indian Financial System

Unit 1

Introduction

(12 hrs.)

- 1.1 Indian Financial System – Significance and Features of Indian Financial System
- 1.2 Components of Indian Financial System – Financial Institutions, Financial Market, Financial Instruments and Financial Services
- 1.3 Functions of Indian Financial System
- 1.4 Changes in the Organizational Structure of the Indian Financial System

Unit 2

Financial Institutions

(13 hrs.)

- 2.1 Types - Banking and Non-Banking Financial Institutions
Banking Institutions – Commercial Banks (Post Millennium Developments in the Commercial Banking System) and Cooperative Banks.
Non- Banking Institutions - Organised and Un- Organised Financial Institutions
- 2.2 Functions of Financial Institutions

Unit 3

Financial Markets

(10 hrs.)

- 3.1 Characteristics and Functions of Financial Market
- 3.2 Types of Market – Functions and Constituents of Money Market and Capital Market

Unit 4

4.1 Financial Instruments

(15 hrs.)

- 4.1.1 Significance and Role of Financial Instruments
- 4.1.2 Types of Financial Instruments - Money Market , Capital Market and Hybrid Instruments

4.2 Financial Services

- 4.2.1 Fund Based Services – Leasing, Hire Purchase and Factoring
- 4.2.2 Fee Based Services – Merchant Banking , Credit Rating and Mergers

Unit 5

Regulatory and Promotional Institutions

(15 hrs.)

- 5.1 Reserve Bank of India – Regulatory Functions
- 5.2 Securities and Exchange Board of India, - Objectives and Functions
- 5.3 Foreign Investment Promotion Board - Functions
- 5.4 The Promotional Role of Major Financial Institutions – NABARD, NHB,UTI, IDBI

BOOK FOR STUDY

Khan. *Indian Financial system*. Tata McGraw-Hill Education, 2004.

BOOKS FOR REFERENCE

Gurusamy, S. *Financial Services and Markets*. Vijay Nichole Imprints, 2012.

Machiraju H.R. *Indian financial system*.New Delhi: Vikas, 2013.

Mishkin, Fredrick S. and Stanley G. Eakins. *Financial Markets and Institutions*. Pearson Education India.

Murthy, D.K. Venugopal. *Indian Financial Syste.*,2006.

Ramesh Babu, G. *Indian financial system*. Concept, 2012.

JOURNALS

Asian journal of Research and Finance

Journal of Banking and Finance

Journal of Financial Intermediation

WEB RESOURCES

www.bseindia.com

www.nseindia.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20(from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminars 15 Marks

Assignments 15 Marks

Group Discussion 20 Marks

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI -600086
M.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

SOFT SKILLS

CREDITS: 2

L T P: 2 0 0

CODE: 15CM/PK/SS22

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self development
- To instill confidence and enable students to face challenges

Unit 1

Behavioral Traits

(6 hrs.)

- 1.1 Self Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Experimental Learning – Based on Activities

Unit 2

Team Work

(5 hrs.)

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experimental Learning – Based on activities

Unit 3

Time Management

(5 hrs.)

- 3.1 Importance of Time Management
- 3.2 Planning and Prioritizing
- 3.3 Organizing Skills
- 3.4 Action Plan
- 3.5 Experimental Learning – Based on Activities

Unit 4

Conflict Resolution

(5 hrs.)

- 4.1 Reasons for Conflict
- 4.2 Consequences of Conflict
- 4.3 Managing Emotions
- 4.4 Methods of Resolving Conflicts
- 4.5 Experimental Learning – Based on Activities

Unit 5

Career Mapping

(5 hrs.)

- 5.1 Goal setting
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experimental Learning – Based on Activities

BOOKS FOR REFERENCE

Khera, Shiv. *You Can Win*. Delhi: MacMillan India Ltd, 2002.

Mishra, Rajiv K. *Personality Development : Transform Yourself*. New Delhi: Rupa, 2004.

Newstrom, John W., and Scannel, Edward E. *Games Trainers Play : Experimental Learning*.
New Delhi : Tata McGraw Hill,1980.

Totally Internal

Max. Marks : 50 marks

No End Semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI -600086
M.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

BUSINESS RESEARCH

CREDITS: 4

LTP: 4 1 0

CODE: 15CM/PC/BR34

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarize students with various approaches and techniques to research
- To provide an exposure to the preparation of project report

Unit 1	Research Methods and Techniques	(15 hrs.)
	1.1 Meaning and Scope of Research	
	1.2 Approaches to Research – Historical, Descriptive, Case Study and Experimental Approach	
	1.3 Research Process	
	1.3.1 Stages in Research Work	
	1.3.2 Problem Formulation	
	1.4 Research Design – Need, Features, Concepts and Types	
Unit 2	The Sample Design	(12 hrs.)
	2.1 The Need for Samples	
	2.2 Selecting the Sample – Random and Non-Random Methods	
	2.3 Designing and Conducting a Sample Study	
	2.4 Sampling and Non-Sampling Errors	
	2.5 Merits and Demerits of Sampling	
Unit 3	Measurement and Scaling Techniques	(8 hrs.)
	3.1 Measurement in Research	
	3.2 Measurement Scales	
	3.3 Test of Sound Measurement	
	3.4 Types of Scaling Techniques	
Unit 4	Testing Hypotheses and Tests of Significance	(15 hrs.)
	4.1 Sampling Distribution – Standard Error – Null Hypothesis – Type I and Type II Errors	

- 4.2 Test of Significance for Large Samples Based on Normal Distribution
- 4.3 Test of Significance for Small Samples Based on 'T' and 'F' Distributions
- 4.4 Methods of Correlation and Regression

Unit 5 (15 hrs.)

5.1 Non-Parametric Test and Analysis of Variance

5.1.1 Chi-Square Test

5.1.2 ANOVA- One Way Classification and Two Way Classification

5.1.3 Analysis of Variance – Latin Square Design

5.2 SPSS

5.2.1 Introduction to SPSS

5.2.2 Application of SPSS for Large and Sample Test, Chi-Square Test

5.3 Report Writing

Layout of the Research Report

BOOK FOR STUDY

Kothari, C.R. . *Research Methodology- Methods and Techniques*. New Delhi: New Age,2014.

BOOKS FOR REFERENCE

Gupta, Santhosh. *Research Methodology and Statistical Techniques*. New Delhi: Deep and Deep, 2003.

Sancheti,D.C. and Kapoor V.K. *Statistics*.New Delhi: Sultan Chand, 2008.

Singh, Y.K. Bajpai R.B. *Research Methodology*. New Delhi: Aph, 2007.

Taylor, B. *Research Methodology*. New Delhi: Prentice Hall India, 2007.

JOURNALS

Journal of Indian Business research

Asia Pacific Journal of management research and innovation

WEB RESOURCES

www.emerald group publishing.com

www.spss-tutorials.com

www.spsstools.net

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions)

Section B - 1x20=20 Marks (from a choice of two questions)

Third Component:

List of Evaluation Modes:

A project on application of statistical tools 30 Marks

Assignment 10 Marks

Problem solving 10 Marks

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –4 theory and 4 Problems)

Section B – 2x20= 40(from a choice of four questions – 2 theory and 2 Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI -600086
M.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

CORPORATE ACCOUNTING

CREDITS: 4

LTP: 4 1 0

CODE: 15CM/PC/CA34

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to the accounting practices in specific industries
- To familiarize the accounting procedures for mergers and acquisitions

Unit 1	Mergers and Acquisitions	(15 hrs.)
	1.1 Legal Provisions relating to Mergers and Acquisitions	
	1.2 Calculation of Purchase Consideration	
	1.3 Accounting Treatment in the Books of the Purchasing Company and Vendor Company for Merger and Purchase Excluding Inter- Company Holdings	
Unit 2	Holding Company Accounts	(15 hrs.)
	2.1 Preparation of Consolidated Balance Sheet – Calculation of Minority Interest, Capital Profit and Goodwill or Cost of Control	
	2.2 Intercompany Owings with One Subsidiary Company	
	2.3 Dividend Received and Bonus Shares	
Unit 3	Insurance Company Accounts	(10 hrs.)
	3.1 Accounts of General Insurance	
	3.2 Accounts of Life Insurance Companies	
Unit 4	Bank Accounts	(15 hrs.)
	4.1 Treatment of Rebate on Bills Discounted	
	4.2 Computation of Provision to be made for Advances	
	4.3 Preparation of Profit and Loss Account with Schedules	
	4.4 Preparation of Balance Sheet with Schedules	

Unit 5 (10 hrs.)

5.1 Liquidation

5.1.1 Legal Provision

5.1.2 Statement of Affairs and Deficiency or Surplus Accounts

5.1.3 Liquidators Final Statement of Accounts

5.2 An Overview of Miscellaneous Concepts in Corporate Accounting

5.2.1 Inflation Accounting

5.2.2 Human Resources Accounting

5.2.3 Forensic Accounting

BOOK FOR STUDY

Reddy, T.S. Murthi A. *Corporate Accounting*. Chennai : Margham, 2014.

BOOKS FOR REFERENCE

Goyal , V.K. *Corporate Accounting*. Excel books, 2010.

Gupta, R.L., Radhaswamy, M. *Advanced Accountancy*. New Delhi: Sultan Chand, 2014.

Jain, S.P. Narang, K.L. *Advanced Accountancy(Part II)*. New Delhi :Vikas, 2013.

Maheshwari, S.N. *Advanced Accountancy(Part II)*. New Delhi : Vikas, 2013.

JOURNALS

Journal of Banking and Finance

Journal of Finance

Indian Journal of Commerce

WEB RESOURCES

www.icaai.org

ijrcm.org.in/commerce/index.php

http://www.commercedu.com/wp-content/uploads/2013/11/merged_document.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions)

Section B - 1x20=20 Marks (from a choice of two questions)

Third Component:

List of Evaluation Modes:

Open book test 20 Marks

Assignment 15 Marks

Problem solving 15 Marks

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –2 theory and 4 Problems)

Section B – 2x20= 40(from a choice of four questions – 2 theory and 2 Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

GLOBAL STRATEGIC MANAGEMENT

CREDITS : 4

L T P : 4 1 0

CODE: 15CM/PC/GS34

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To expose students to various perspectives and concepts in the field of Strategic management
- To enable students to develop a framework of analysis, for better understanding of the present and emerging environment

Unit 1

Introduction to Strategic Management (10 hrs.)

- 1.1 Scope of Strategic Management
- 1.2 Basic Model of Strategic Management
- 1.3 Levels of Strategy and Strategic Intent, Vision, Mission, Goals and Objectives

Unit 2

External Analysis (15 hrs.)

- 2.1 Factors affecting External Environment- Economic, Social, Political, Technological and Ecological
- 2.2 Industry Environment – Porters Five Forces Competitive Model
- 2.3 Industry Analysis

Unit 3

Internal Analysis (12 hrs.)

- 3.1 Resource Based View of The Firm- Tangible Assets, Intangible Assets and Organisational Capabilities
- 3.2 SWOT Analysis
- 3.3 Value Chain Analysis

Unit 4

Strategic Analysis and Choice (15 hrs.)

- 4.1 Corporate Level Strategies- Stability, Expansion, Retrenchment and Combination Strategies
- 4.2 Concentration Strategies Integration Strategies, Diversification Strategies
- 4.3 BCG(Boston Consulting Group) Growth Share Matrix

Unit 5

Strategic Implementation, Evaluation and Control (13 hrs.)

- 5.1 Strategic Implementation Issues- Structural: Functional, Geographic, Divisional or SBU and Matrix
- 5.2 Strategic Control Systems – Strategic and Operational Control Systems
- 5.3 Primary Measures of Corporate Performance – Benchmarking, Key Factor Rating

BOOKS FOR STUDY

Azhar Kazm., *Business Policy*. New Delhi: Tata Mc Graw Hill, 2008.

Hill, Charles W.L and Gareth R. Jones. *Strategic Management: An Integrated Approach*. Cengage Learning, 2012.

Thomas, L. Wheelen, Hunger David J. *Concepts in Strategic Management and Business Policy*, Prentice Hall, 2000.

BOOKS FOR REFERENCE

Ghosh, P.K. *Strategic Management- Text & Cases*. Sultan Chand.

Hitt, Michael A., Ireland, R. D., Hokisson, Robert E. and S. Manikutty. *Strategic Management: A South- Asian Perspective*. Cengage Learning, 2012.

Thomson Strickland. *Strategic Management*. New Delhi: Tata Mc Graw Hill, 2003.

JOURNALS

Harvard Business Review – Strategic Management for Competitive Advantage

HBR's 10 Must Read on Strategy

International Journal of Management Reviews

European Journal of Business Management

Academy of Strategic Management Journal

International Journal of Strategic Management

WEB RESOURCES

www.exed.hbs.edu

www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20(from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminars 15 Marks

Assignments 15 Marks

Group Discussion 20 Marks

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI -600086
M.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

SUMMER INTERNSHIP

CODE: 15CM/PN/SI32

CREDITS: 2

The student is required to

- Undergo practical training in a reputed organization for 100 hours
- Maintain a log book duly countersigned by the Supervisor of the organisation
- The log book to contain the following details:
 - a. Hours worked
 - b. Nature of work
- Submit interim reports to the Faculty Advisor after completion of every 25 hours of work
- A final consolidated report to be submitted to the Faculty Advisor

Preparation of final Project Report

The Report should have a minimum of 50 pages detailing the work assigned and performed in the organisation.

Pattern of Evaluation

Log Book	10 marks
Interim Report	20 marks
Project Report	40 marks
Viva	30 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

INDIVIDUAL AND CORPORATE TAX PLANNING

CREDITS : 4

L T P : 4 1 0

CODE: 15CM/PC/IC44

TOTAL TEACHING HOURS.: 65

OBJECTIVES OF THE COURSE:

- To provide a broad conceptual framework for determining the tax liability for an individual
- To familiarize the student with the latest provisions of the Indian tax laws related to corporate enterprises

- Unit 1**
Tax Planning and Management (5 hrs.)
- 1.1 Meaning of Tax Planning and Management
 - 1.2 Tax Evasion and Tax Avoidance
 - 1.3 Nature and Scope of Tax Planning and Management for Individuals and Corporates
- Unit 2**
Computation of Taxable Income and Tax Liability of an Individual (15 hrs.)
- 2.1 Computation of Taxable Income under the Five Heads of Income
 - 2.2 Set Off and Carry Forward of Losses and Deductions
 - 2.3 Computation of Taxable Income and Tax Liability.
- Unit 3**
Computation of Corporate Tax (15 hrs.)
- 3.1 Computation of Taxable Income
 - 3.2 Carry Forward and Set Off of Losses in the case of Certain Companies Under Sec. 79 of Income-Tax Act, 1961
 - 3.3 Computation of Corporate Tax Liability - Minimum Alternate Tax, Tax on Distributed Profits of Domestic Companies, Tax on Income Distributed to Unit Holders.
- Unit 4**
Implications of Tax Concessions and Incentives (15 hrs.)
- 4.1 For Corporate Decisions in respect of Setting Up a New Business, Location of Business and Nature of Business.
 - 4.2 Tax Planning with Reference to Financial Management Decisions – Capital Structure Decisions, Dividend Policy, Bonus Shares, Investments And Capital Gains

- 4.4 Tax Planning with Reference to Managerial Decisions – Owning or Leasing of an Asset , Purchase of Assets by Installment and Hire Purchase System, Purchase of an Asset out of Own Funds or Borrowed Capital

Unit 5 (15 hrs.)

- 5.1 Tax Planning in Respect of Amalgamation or De-Merger of Companies or Slump Sale or Conversion of A Firm into a Company
5.2 Foreign Collaborations and Incidence of Taxation on Domestic Companies
5.3 Relief in respect of Double Taxation and Avoidance of Double Taxation

BOOKS FOR STUDY

Gaur, V.P. and Narang D.B. *Income Tax Law and Practice*. New Delhi: Kalyani, 2014-15.

Vinod K., Singhania. *Taxman's Students Guide to Income Tax*. New Delhi: Taxman's, 2014-15.

BOOKS FOR REFERENCE

Girish Ahuja. *Simplified approach to Corporate tax planning and management*. Bharat, 2014

Kushal Kumar Agarwal. *Corporate tax planning*. Atlantic, 2014.

Mehrothra, H.C . *Income tax law and Practice*. Sahithya Bhavan, 2014.

Note: Latest edition of the readings may be used

JOURNALS

Journal of taxation management

National tax journal

Journal of taxation investment

WEB RESOURCES

www.taxmanagementindia.com

www.taxinstitute.com

www.incometaxmanagement.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions)

Section B - 1x20=20 Marks (from a choice of two questions)

Third Component:

List of Evaluation Modes:

Seminars 15 Marks

Assignments 15 Marks

Group Discussion 20 Marks

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions – 2 theory and 4 Problems)

Section B – 2x20= 40(from a choice of four questions – 2 theory and 2 Problems)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

INVESTMENT PLANNING

CREDITS : 4

L T P : 4 1 0

CODE: 15CM/PC/IP44

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To enable students to realize the relevance of financial planning and understand the various aspects of financial planning framework
- To assist students to develop skills for critically analyzing and planning personal investments.

Unit 1

Introduction to Financial Planning

(8 hrs.)

- 1.1 Financial Planning – Meaning, Importance and Process
- 1.2 General Principles of Cash Flow Planning and Budgeting
- 1.3 Legal Aspects of Financial Planning.
- 1.4 Relevance of Risk Management in Financial Planning

Unit 2

Investment Options and Operational Scenario

(15 hrs.)

- 2.1 Needs and Benefits of Investing
- 2.2 Sources of Financial Information
- 2.3 Investment Options for Individual Investors - Bonds, Equity Shares, Mutual Funds, Fixed Deposits, PPF/NPS, Financial Derivatives, Commodity Derivatives, Gold and Bullion, Real Estate, Exchange Traded Funds (Etf), Real Estate Investment Trusts (Reits),.
- 2.4 Operational Constraints while Investing (Tax Considerations, Unique Needs Etc.), and Impact of Inflation and Indexation.
- 2.5 Investing in Mutual Funds – Schemes, NAV Calculation, Load Structure, Systematic Investment Plan (SIP) And Systematic Withdrawal Plan (SWP)

Unit 3

Return-Risk Assessment

(14 hrs.)

- 3.1 Return on Investment and Risk Profiling
- 3.2 Assessment of Risks in Different Financial Instruments
- 3.3 Power of Compounding, Time Value of Money and Rupee Cost Averaging
- 3.4 Concept of Portfolio and Diversification
- 3.5 Basics of Portfolio Risk-Return, Tactical and Strategic Asset Allocation

- Unit 4**
Planning of Personal Finances (15 hrs.)
- 4.1 Personal Financial Goals and Life Cycle Approach
 - 4.2 Elements and Structure of Personal Financial Plan
 - 4.3 Estimation of Savings Using Time Value Concepts
 - 4.4 Life Insurance and Health Insurance Plans and Operations
 - 4.5 Objectives and Features of Will and Power of Attorney

- Unit 5**
Managing Credit and Planning for Retirement (13 hrs.)
- 5.1 Types of Credit, Advantages and Disadvantages
 - 5.2 Consumer and Housing Finance Planning and Implementation
 - 5.3 Credit Bureaus – Individual Credit History, Credit Rating and Identity Security
 - 5.4 Retirement Planning and Pension Schemes
 - 5.5 Impact of Taxes and Inflation on Retirement Planning

BOOK FOR STUDY

Kapoor, J R, Dlabay and Hughes R. *Personal Finance*. McGraw Hill.

BOOKS FOR REFERENCE

Rachel, Siegela and Carol Yacht. *Personal Finance*. Saylor Foundation, Flat World Knowledge,

Madura, Jeff. *Personal Finance*. Pearson.

Bajtelsmit, Vickie L. & Rastelli Linda G. *Wiley Pathways Personal Finance*.

JOURNALS

Journal of Wealth Management

The Insurance and Investment Journal

Journal of Individual Financial Management

WEB RESOURCES

<http://www.saylor.org/site/textbooks/PersonalFinance.pdf>

www.bogleheads.org/wiki/Financial_planning

www.planningalt.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Presentation of an investment proposal

Seminar

Class presentation and group discussion

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of 8 questions –Max words 500)

Section B – 2x20= 40(from a choice of 4 questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
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SYLLABUS
(Effective from the academic year 2015-2016)

PRINCIPLES OF E-COMMERCE

CREDITS : 4

L T P : 4 1 0

CODE: 15CM/PC/EC44

TOTAL TEACHING HOURS. : 65

OBJECTIVES OF THE COURSE

- To enable students to gain knowledge about e-commerce concepts and operations
- To make the students aware of the e-commerce components and implementation issues.

Unit 1

Introduction to E-Commerce

- 1.1 Meaning, Concepts and Significance of Electronic Commerce
- 1.2 Scope and Functions of Electronic Commerce
- 1.3 Advantages and disadvantages of E-Commerce
- 1.4 Electronic Commerce vs Traditional Commerce

Unit 2

Evolution of Electronic Commerce

- 2.1 Major Ecommerce Models
- 2.2 E business Models
 - 2.2.1. Business-to-Customer (B2C)
 - 2.2.2. Business to Business (B2B)
 - 2.2.3. Consumer to Consumer (C2C)
 - 2.2.4. Consumer to Business (C2B)
- 2.3 Problems of the E-Business
- 2.4 Electronic Business – Indian Scenario

Unit 3

E-Marketing and E-Advertising

- 3.1 E-Marketing
 - 3.1.1. Identifying Web Presence Goals
 - 3.1.2. Marketing through internet
 - 3.1.3. Mobile Marketing
- 3.2 E-Advertising
 - 3.2.1. Internet Marketing Trends
 - 3.2.2. E-branding
- 3.3 Impact of Social Networks

Unit 4

E-Commerce Payment Systems

- 4.1 Online and Off-line Payment Systems
- 4.2 Payment Gateways and Third Party Payment Services
- 4.3 Electronic Fund Transfer
- 4.4 Payment Security Risks and Measures
- 4.5 Cyber Crime and Protection to Cyber Consumers in India

Unit 5

E-Commerce Implementation

- 5.1. Supply and Logistics operations for B2B and B2C
- 5.2. Overview of Online Retail
- 5.3. Managing the Customers and related issues

BOOKS FOR STUDY

Murthy, C.S.V. *E-commerce- Concepts, Models and Strategies*. Himalaya, 2003.

BOOKS FOR REFERENCE

Agrawal K.N. and Agrawal D., *Business on the Net: What's & How's of ECommerce*, Macmillan New Delhi

Bharat Bhaskar, *Electronic Commerce*, Tata Mc Graw Hill Publication, New Delhi

Greenstein and Feinman, *Electronic Commerce - Security, Risk Management and Control*, Irwin Mc.Gra-Hill, 2000

Rayport, Jeffrey F., and BernaudJ.Jaworski. *Introduction to E-Commerce*. Tata McGraw-Hill, 2010.

Strauss, Adel El-Ansary and Raymond Frost. *E-marketing*. New Jersey: Prentice Hall,2003.

JOURNALS

Electronic Markets

International Journal of E-Commerce

Journal of Electronic Commerce in Organizations

Journal of Theoretical and Applied E-Commerce

Journal to Management Information Systems and E-Commerce

WEB RESOURCES

www.ecommerce-digest.com
www.htmlgoodies.com
www.openlearningworld.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Presentation

Seminar

Case study

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

DISSERTATION

SYLLABUS

(Effective from the academic year 2015 -2016)

CODE: 15CM/PC/DS45

CREDITS : 5

Project should be the independent work of the student. Each student will choose a topic of her interest and the student will be assigned to a supervisor.

The student can use Quantitative or Qualitative/Descriptive or both methods.

➤ **Page Limit :**

The Dissertation report should be submitted in the prescribed format having a maximum of 100 pages, typed in font Times New Roman -size 12, with 1 ½ line spacing on A4 Size paper.

➤ **Contents of the Report:**

- Contents Page
- The report copy will include Certificate of the Supervisor, Declaration, and Acknowledgement
- Four or five chapters
- Presentation of the Report – format

Chapter 1 Introduction - to include background of the study, objectives , Methodology, limitation of the study and chapter scheme

Chapter 2 – Review of literature

Chapter 3 – Theoretical aspects of the study

Chapter 4 – Data analysis

Chapter 5 – Suggestion and conclusion

At the end of the project ‘Bibliography’ must be given in

Alphabetical/chronological order and necessary appendix may be added.

➤ **Submission:**

Each student may prepare two soft bound copies of the report, one for her and one copy to be submitted to the Head of the Department duly signed by the supervisor, on the scheduled date.

➤ **Guidelines for Evaluation:**

There will be double valuation for the Dissertation by the supervisor and an external examiner. The student will appear for viva -voce before a panel comprising External Examiner, Supervisor and Head of the Department.

The maximum marks for the project is 100 – 75 marks for the project report and 25 marks for the viva- voce.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

ORGANISATIONAL THEORY AND BEHAVIOUR

CREDITS: 4

LTP : 4 0 0

CODE: 15CM/PE/OB14

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To provide an overview of the major challenges and paradigm shift facing management
- To study the impact of individual and group behavior on the effective functioning of an organization
- To create an awareness on the importance of team building skills

Unit 1 Introduction 1.1 Scope of Organizational Behaviour 1.2 Concepts in Organizational Behaviour 1.3 Major Challenges and Opportunities of Organizational Behaviour	(6 hrs.)
Unit 2 Foundation of Individual Behavior 2.1 Individual Behavior – Environmental Factors affecting Individual Behaviour 2.2 Personality – The Big Five Personality Traits, Personality and Organizational Behaviour 2.3 Attitudes –Formation of Attitudes, Key Work Related Attitudes 2.4 Perception –Factors Influencing Perception- Perception and Organizational Behaviour	(12 hrs.)
Unit 3 Group Behavior 3.1 Group Dynamics – Meaning and Types 3.2 Team Building – Ingredients of Effective Team, The Process and Skills in Team Building 3.2 Stress – Nature of Stress, Causes of Stress, Consequences of Stress, Managing Stress in the Work Place, Work Life Balance	(10 hrs.)
Unit 4 Organizational Process and Characteristics 4.1 Organizational Structure –Importance of Structure, Influence of Organizational Structure on Individual Behavior 4.2 Organizational Culture –Creating the Organizational Culture,	(12 hrs.)

- Culture Sustenance, Impact of Culture on Organizational Effectiveness
- 4.3 Conflict in Organizations – Nature of Conflict, Functional and Dysfunctional Conflict, the Process of Conflict, Managing Conflict

Unit 5

Organisational Change and Development

(12 hrs.)

- 5.1 Significance of Organizational Change
5.2 Types of Organizational Change
5.3 Organisational Development - Concept and Process

BOOKS FOR STUDY

Robbins, P. Stephen. *Organisational Behaviour – Concepts, Controversies and Applications*. New Delhi: Prentice Hall, 2005.

Aswathappa, K. *Organizational Behaviour*. New Delhi: Himalaya, 2007.

BOOKS FOR REFERENCE

Davis, Keith and Weratom, John W. *Human behaviour at Work, Organisation behavior*. Madras: Mc Graw Hill,

Luthans, Fred. *Organizational Behaviour*. Singapore: McGraw Hill International ed, 2010.

Mishra, M. N. *Organizational Behaviour*. New Delhi: Vikas, 2010.

Prasad, L.M. *Organisational Behaviour*. New Delhi : Sultan Chand, 2007.

Sekaran Uma, *Organizational Behaviour – Text and Cases*. New Delhi: Tata Mc Graw Hill, 2006.

JOURNALS

International Journal of Management Reviews
Journal of Leadership and Organisational Studies
Journal of Organisational Culture, Communication and Conflict
SSRN – E Journal

WEB RESOURCES

<http://onlinelibrary.wiley.com/>
www.exed.hbs.edu
www.hbr.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20(from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Seminars

Assignments

Case Studies

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

ADVERTISING

CREDITS: 4

LTP: 4 0 0

CODE: 15CM/PE/AD14

TOTAL TEACHING HOURS.: 52

OBJECTIVES OF THE COURSE

- To offer an insight into the creative strategies of advertising.
- To enable students to understand the changing perspective of advertising.
- To provide an understanding of the growing demand and challenges of the promotional aspects of advertising.

Unit 1
The Field of Advertising **(10 hrs.)**

- 1.1 Role of Advertising – Marketing, Communicative, Economic, Social
- 1.2 Advertising as a Promotional Tool

Unit 2
Creative Strategy **(10 hrs.)**

- 2.1 **Ad Copy**
 - 2.1.1 Meaning – Preparation Process
 - 2.1.2 Types of Copy Form
 - 2.1.3 Elements of an Ad Copy
- 2.2 **Ad Designing**
Elements of Creative Ad Design
- 2.3 **Ad Layout**
 - 2.3.1 Structure of an Ad Layout
 - 2.3.2 Principles of Ad Layout

Unit 3
Advertising Media **(10 hrs.)**

- 3.1 Types of Media
 - 3.1.1 Indoor and Outdoor
 - 3.1.2 Electronic and Online
 - 3.1.3 Social Media Marketing
- 3.2 Media Choice Criteria
Factors Affecting Choice of Media

Unit 4
Planning and Executing Ad Campaign (10 hrs.)

- 4.1 Preparation of Campaign – Stages in the Campaign Process
- 4.2 Ad Budgeting – Types – Affordable Rate Method, Percentage of Sales Method, Competitive Parity Method and Objective and Task Method

Unit 5
Evaluation Of Advertising (12 hrs.)

- 5.1 Measures to Study Effectiveness – Direct and Indirect Measures
- 5.2 Ethics in Advertising

BOOK FOR STUDY

Belch. *Advertising and Promotion*. New Delhi: Tata McGraw Hill, 2014.

BOOKS FOR REFERENCE

Bovee, John. Courtland, L. George, Dovel, P. and Wood, Marian Burk. *Advertising Excellence*. New Delhi: Tata McGraw Hill, 1999.

Christina Spurgeon. *Advertising & New Media*. USA : Taylor & Francis, 2008.

Jaishree Jethwaney, Shruti Jain, *Advertising Management*, New Delhi: Oxford University Press.

Kenneth, E. Clow & Donald E. Baack. *Integrated Advertising Promotion & Marketing Communication*. New Delhi: Prentice Hall, 2003.

Sabyasachi Chatterjee. *Media and Advertising Management : New Trends*. New Delhi: ICFAI, 2007.

Wells. *Advertising Principles and Practice*. New Delhi: Prentice Hall of India, 2007.

JOURNALS

Journal for advertising research and new insights on marketing issues

Journal of interactive advertising

International Journal of Internet marketing and Advertising

WEB RESOURCES

<http://www.smallfuel.com/blog/entry/the-8-steps-of-an-advertising-campaign/>

<http://www.brickmarketing.com/define-ad-copy.htm>

<http://letsspeaktogether.blogspot.in/2013/02/elements-of-advertisement-copy.html>

<http://kalyan-city.blogspot.com/2013/08/eleven-major-functions-of-advertising.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignments

Seminar

Case study

Class presentation and group discussion

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

INSURANCE AND RISK MANAGEMENT

CREDITS : 4

L T P : 4 0 0

CODE: 15CM/PE/IR14

TOTAL TEACHING HOURS.: 52

OBJECTIVES OF THE COURSE

- To expose students to various concepts and products of both life and general insurance
- To provide a basic understanding of the insurance mechanism

Unit 1

Conceptual frame work (10 hrs.)

- 1.1 Concept of Risk , Peril, Hazard , Classification and Burden of Risk
- 1.2 Insurance as a Device to Hedge Risk Need and Functions
- 1.3 Elements of Insurable Risk
- 1.4 Principles of Insurance and Types of Insurance Contracts - Life and General
- 1.5 Government as Insurer and Regulator - overview of IRDA
- 1.6 Major Players in the Indian Insurance Industry - Insurance Penetration in India

Unit 2

Risk Management (10 hrs.)

- 2.1 Risk Management – Objectives and Process
- 2.2 Methods of Handling Risk
- 2.3 Risk Management Methods
- 2.4 Risk Management Department – Organisation and Functions

Unit 3

Life and Health Insurance (12 hrs.)

- 3.1 Meaning and Essential Features of Life Insurance / Assurance
- 3.2 Life Insurance and Annuities Broad Classification of Life Insurance, Joint Life Policies
- 3.3 Health Insurance – Medical Insurance, Types and Coverage
- 3.4 Claims Settlement , Revival and Lapse of Insurance Policies

Unit 4

Principles and Practices of General Insurance (10 hrs.)

- 4.1 Functions and Scope of Fire, Accident, Marine and Aviation Insurance
- 4.2 Fire Insurance –Types of Policies

- 4.3 Miscellaneous Insurance
- 4.4 Reinsurance
- 4.5 Agent, Broker, Corporate Agents, Referral Partners, Bancassurance

Unit 5

Organisation and Administration of Insurance

(10 hrs.)

- 5.1 Departmentalisation and Marketing
- 5.2 Underwriting and Pricing
- 5.3 Financial Structure, Reserves and Liabilities of Insurer
- 5.4 Earned Surplus and Profitability
- 5.5 Insurer's Investment and Financial Reporting

BOOK FOR STUDY

Sethi, J., & Bhatia N. *Elements of Banking and Insurance*. New Delhi: India: PHI, 2008

BOOKS FOR REFERENCE

Gupta, P. K. *Fundamentals of Insurance*. New Delhi: Himalaya, 2004.

Insurance Institute of India. *Principles of Insurance*. Mumbai:

Insurance Institute of India. *Practice of life insurance*. Mumbai: (Revised edition 2011)

Insurance Institute of India. *Practice of general insurance*, Mumbai: (Revised edition 2011)

Insurance Institute of India. *Regulation of insurance business*. Mumbai: (Revised edition 2011)

Insurance Institute of India. *Risk management*. Mumbai: (Revised edition 2011)

JOURNALS

Journal of Insurance Law, ICFAI Press, Hyderabad.

Journal of Risk and Insurance, ICFAI Press, Hyderabad

Insurance Chronicle, ICFAI Press, Hyderabad.

Journal of Insurance and Risk Management, National Insurance Academy, Pune.

WEB RESOURCES

<https://www.irda.gov.in/>

<http://web-docs.stern.nyu.edu/salomon/docs/whitepaper.pdf>

<http://anchan.lib.ku.ac.th/kukr/bitstream/003/16616/1/KC395002.pdf>

https://ec.europa.eu/internal_market/insurance/solvency/latest/index_en.htm

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignments

Seminar

Class presentation and group discussion

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS VENTURE MANAGEMENT

CREDITS : 4

L T P : 4 0 0

CODE: 15CM/PE/BV14

TOTAL TEACHING HOURS. : 52

OBJECTIVES OF THE COURSE

- To enable students to investigate, understand and internalize the process of setting up a business
- To create an awareness on the support system for entrepreneurship development

Unit 1

Introduction

(10 hrs.)

- 1.1 Concept of Entrepreneur, Entrepreneurship and Enterprise
- 1.2 Entrepreneur – Traits and Types – Women Entrepreneur, Social Entrepreneur
- 1.3 Role of Entrepreneurship in Economic Development
- 1.4 Factors impacting Emergence of Entrepreneurship
- 1.5 Entrepreneurial Competencies – Meaning, Stages in Developing Entrepreneurial Competencies

Unit 2

Setting up a New Business Venture

(10 hrs.)

2.1 Micro Small and Medium Enterprise

- 2.1.1 Features and Scope
- 2.1.2 Role of MSME in Economic Development, Promotion of MSME

2.2 Methods to Initiate Ventures

- 2.2.1 Acquisition -Advantages of Acquiring an Ongoing Venture
- 2.2.2 Franchising - Evaluating Franchising Opportunities

2.3 Opportunity Identification and Selection

- 2.3.1 Generating Business Idea – Sources of Business Idea,
- 2.3.2 Evaluation and Selection of Business Idea – Process

2.4 Formulation of Business Plan

Content, Significance of Business Plan

Unit 3

New Venture Feasibility Planning

(12 hrs.)

- 3.1 The Concept of a Planning Paradigm and Fundamentals of a Feasibility Plan
- 3.2 Project Identification and Project Selection

- 3.3 Project Report – Significance – Contents - Planning Commission Guidelines
- 3.4 Project Formulation – Need and Elements
- 3.5 Project Design and Network Analysis

Unit 4

Enterprise Management (10 hrs.)

4.1 Financial Management

- 4.1.1 Need for Financial Planning
- 4.1.2 Sources of Finance – Internal and External
- 4.1.3 Working Capital Significance, Sources and Factors Determining Working Capital

4.2 Marketing Management

- 4.2.1 Importance of Developing a Marketing Plan
- 4.2.2 Customer Analysis, Sales Analysis and Competition Analysis
- 4.2.3 Steps in Marketing Research, Marketing Mix

4.3 Inventory and Production Management

- 4.3.1 Concept of Inventory, Motive and Advantages of Maintaining Inventory
- 4.3.2 Plant Location and Product Design – Factors to be Considered

Unit 5

Special Issues For Entrepreneurs (10 hrs.)

- 5.1 Legal Issues in Setting Up a Business, Requirements for Formation of a Private/Public Limited Company,
- 5.2 Intellectual Property Protection- Patents, Trademarks and Copyrights
- 5.3 Incentives and Subsidies

BOOK FOR STUDY

Khanka, S.S. *Entrepreneurial Development*. S.Chand, 2011.

BOOKS FOR REFERENCE

Desai Vasant. *Entrepreneurial Development and Management*. Mumbai: Himalaya, 2007.

Gupta C.B & Srinivasan N.P. *Entrepreneurial Development*. Sultan chand, 2012.

Kumar, Ary. *Creating and Leading an Entrepreneurial Organization*. Pearson, 2012.

Kuratko, Donald F. and Hodgetts Richard M. *Entrepreneurship in the New Millennium*. 2008.

Lall Madhurima, Sahai Shikha. *Entrepreneurship*. Excel Books.

Natarajan, K. and E. Gordo. *Entrepreneurship Development*. Himalaya, 2012.

JOURNALS

Journal of development entrepreneurship

Journal of entrepreneurship education

Journal of Business Venturing

WEB RESOURCES

www.entrepreneur.com

www.sblc.org

www.nfte.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignments

Seminar

Class presentation and group discussion

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS APPLICATIONS IN COMPUTERS

CREDITS : 4

L T P : 4 0 1

CODE: 15CM/PE/CB14

TOTAL TEACHING HOURS.: 52

OBJECTIVES OF THE COURSE

- To give an exposure on E-Commerce environment
- To familiarise students with the E-Commerce strategies and operations

Unit 1

Accounting and Information Systems (10 hrs.)

- 1.1 Introduction - Methods of Data Collection
- 1.2 Types of Information Systems
- 1.3 Internal Controls for Information Systems

Unit 2

Management Reporting Using Spread sheets (10 hrs.)

- 2.1 Business Forecasting – Time Series Analysis – Charts – Ratio Analysis – Regression Analysis
- 2.2 Financial Statement Analysis – Comparative Statements – Common Size Statements – Cash Flow and Fund Flow Analysis
- 2.3 Budgeting – Preparation of Master Budget

Unit 3

Accounting Package - TALLY (10 hrs.)

- 3.1 Tally – Creation of a Company, Alteration and Deletion of a Company
- 3.2 Creation of Account Groups – Liabilities and Assets
- 3.3 Creation of Ledgers – Alteration and Deletion of Account Master Records
- 3.4 Accounts Voucher – Voucher Types and Modifications
- 3.5 Preparation of Final Accounts – Profit and Loss Statement and Balance Sheet
- 3.6 Inventory – Stock Categories, Group and Items – Usage of Stocks in Voucher Entry

Unit 4

Advertising and Marketing on the Internet (12 hrs.)

- 4.1 Meaning, Concept, Advantages and Limitations of E-Commerce
- 4.2 Information Based Marketing
- 4.3 Advertising on the Internet
- 4.4 Online Marketing Process
- 4.5 E-Commerce Strategies

- 4.5.1 Customer Relationship Management – Strategies and Tools
- 4.5.2 Supply Chain Management – E-Supply Chain – Components and Architecture – Trends in SCM

Unit 5

Electronic Payment Systems

(10 hrs.)

- 5.1 Classification of Electronic Payment System – E- Cash and Currency Servers, E- Cheques, Credit Cards, Smart Cards; Electronic Purses and Debit Cards;
- 5.2 Risk Involved in Electronic Payment System – Managing Credit Risk and Information Privacy
- 5.3 Security of E-Payments – Cryptography and Digital Signature

BOOK FOR STUDY

Deepak Jain. *Computer Applications in Business*. Kolkatta : Law point,2008.

BOOKS FOR REFERENCE

Joseph, P.T. *E-Commerce*. New Delhi : PHI,2012.

Kamlesh, K.Bajaj, Devjani Nag. *E-Commerce*. New Delhi: Tata McGraw Hill, 1999.

Ravi Kalakota, Andrew B.Whinston, *Frontiers of Electronic Commerce*. Pearson Education,2008.

David Whiteley. *E-Commerce – Strategy, Technologies and Applications*. New Delhi: Tata McGraw Hill,2006.

Jefrey, F. Rayport, & Bernaud J.Jaworski. *Introduction to E-Commerce*. New Delhi : Tata Mcgraw Hill,2003.

Bodhanwala, J. Ruzbeh. *Understanding and Analysing Balance Sheets using Excel Worksheet*. Prentice Hall,2004.

John, E. Hanker, Dean W. Wichern, Arthur G. Reitsch. *Business Forecasting*. Prentice Hall,2012.

Nadhani, A.K. and Nadhani K.K, *Implementing Tally 9*, BPB Publications, 2009.

JOURNALS

International Journal of E-Commerce

Journal of Theoretical and Applied E-Commerce

Journal of Electronic Commerce in Organizations

Journal of Management Information Systems and E-Commerce

WEB RESOURCES

<http://www.ecommerce-digest.com/online-academic-journals.html>

<http://www.htmlgoodies.com/beyond/webmaster/projects/electronic-commerce-tutorial.html><http://www.openlearningworld.com/books/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory 20 Marks – 30 mins. (5 X 4 =20 from a choice of 6)

Practical 30 Marks - 60 mins.

Third Component:

List of Evaluation modes:

Assignments

Practical test

Group projects

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Theory - 60 mins. 40 marks

Section A (20 x1 =20) Objective questions

Section B (4 x 5 = 20) Answer any four (from a choice of six questions)

Practical – 120 mins. 60 Marks

Section A (3 x10 =30)

Section B (2 x 15 =30)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI -600086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

INTERNATIONAL BUSINESS

CREDITS: 4

LTP: 4 0 0

CODE: 15CM/PE/IB14

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to learn the nature, scope and structure of International Business
- To expose the students to the influence of various environmental factors on international business operations

- Unit 1**
Introduction (10 hrs.)
- 1.1 Importance, Nature and Scope of International Business
 - 1.2 Modes of Entry into International Business- Internationalisation Process.
- Unit 2**
Structure of India's Foreign Trade (10 hrs.)
- 2.1 Trade Development Efforts in India.
 - 2.2 Composition and Direction of Trade
 - 2.3 EXIM Policy of India – Regulation and Promotion of Foreign Trade
- Unit 3**
International Economic Institutions and Agreements (12 hrs.)
- 3.1 IMF, World Bank, UNCTAD, IFC, IDA, ADB .
 - 3.2 Agreement on Textiles and Clothing (ATC), GSP, GSTP and other International Agreements.
 - 3.3 International Commodity Trading and Agreements.
 - 3.4 Regional Economic Grouping – European Union, ASEAN, SAARC
- Unit 4**
World Trade Organization and GATT (10 hrs.)
- 4.1 WTO- Functions and Trade Policy.
 - 4.2 India and WTO, GATT

Unit 5

Theories of International business and Balance of Payment (10 hrs.)

- 5.1 Basis for International Trade - Mercantilist and Neo-Mercantilist View.
- 5.2 Absolute and Comparative Advantage Theories - Modern Theories of Trade, Gains from Trade
- 5.3 Balance of Payment Account- Concept and Significance
- 5.4 Current and Capital Account Components and Accounting System; Balance of Payment Deficits and Correction Policies

BOOKS FOR STUDY

- Bhalla, V.K. S.Shiva Ramu. *International Business Environment and Management* , Anmol, 2003.
- Michael,R. Czinkota , Ikka A. Ronkainen, Michael H. Moffet. *International Business*, Thomson, 2005.

BOOKS FOR REFERENCE

- Bennet, Roger. *International Business*. Financial Times, Pitman, 1999
- Bhattacharya, B. *Going International: Response Strategies of the Indian Sector*. New Delhi : Wheeler,1996.
- Danoes, John D. and Radebaugh, Lee H, *International Business: Environment and Operations*, Addison Wesley, 1998.
- Griffin, Ricky W. and Pustay, Michael W. *International Business: A Managerial Perspective*, Addison Wesley, 1999.
- Hill, Charles W. L. *International Business*. New York: McGraw Hill, 2000.

JOURNALS

- Journal of International business
Journal of Elsevier

WEB RESOURCES

- www.ibmnotesanna.blogspot.in
www.onkarsule.files.wordpress.com
www.brownconsultancy.com
www.homes.chass.utoronto.ca
www.yourarticlelibrary.com

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignment

Seminar

Class presentation and group discussion

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
M.COM DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

ESSENTIALS OF MARKETING

CREDITS: 4

LTP: 4 0 0

CODE: 15CM/PE/EM24

TOTAL TEACHING HOURS.: 52

OBJECTIVES OF THE COURSE

- To create an understanding of the theoretical and practical concepts of marketing
- To familiarize students with the process of entering markets, establishing profitable positions and building loyal consumer relationship
- To identify the forces driving the new market economy

Unit 1 (10 hrs.)

Understanding the Concept of Marketing: Managing Profitable Customer Relationships

- 1.1 The Concept of Marketing
- 1.2 Designing a Customer – Driven Marketing Strategy
- 1.3 Building Customer Relationships and Integrated Marketing Plan.

Unit 2 (10 hrs.)

The Marketing Environment

- 2.1 Company Micro Environment – Company/ Supplier/Creditors/Competitors
- 2.2 Company Macro Environment – Demographic, Economic, National, Technological, Cultural and Social
- 2.3 Responding to Marketing Environment

Unit 3 (10 hrs.)

Product Services and Branding Strategies

- 3.1 Product Concept – Product Life Cycle
- 3.2 New Product Development
- 3.3 Branding – Importance, Nature, Types

Unit 4 (10 hrs.)

Price Determination and Promotion

- 4.1 Pricing Objectives
- 4.2 Factors to Be Considered in Fixing a Price
- 4.3 Promotional Program – Purpose and Tools of Promotional Mix

Unit 5

Marketing Channels

(12 hrs.)

5.1 Nature and Importance of Marketing Channels

5.2 Retail, Wholesale – Nature and Types

BOOK FOR STUDY

Kotler Philip. *Marketing Management*. New Delhi: Prentice Hall of India, 2014.

BOOKS FOR REFERENCE

Johansson, J.K. *Global Marketing*. New Delhi: Tata, McGraw Hill, 2007.

Keegan, W. J. *Global Marketing management*, New Delhi: Prentice Hall, 2007.

Saxena Rajan. *Marketing Management*. New Delhi: Tata McGraw Hill, 2005.

Staton, William J. Etzel, Michael J. and Walker, Bruce. *Fundamentals of Marketing*. New Delhi: McGraw Hill, 2004.

Raju, M. S. *Fundamental of Marketing*. New Delhi: Excel Books, 2008.

JOURNALS

International Journal of Research in Marketing

Indian Journal of Marketing

Journal of Marketing Education

WEB RESOURCES

<http://smallbusiness.chron.com/product-mix-639.html>

<http://productlifecyclestages.com/>

<http://www.innovationcoach.com/2013/05/8-step-process-perfects-product-development/>

<http://www.marketing-schools.org/types-of-marketing/brand-marketing.html>

<http://www.businessdictionary.com/definition/market-segmentation.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignment

Seminar

Class presentation and group discussion

Case study

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.COM DEGREE

SYLLABUS

(Effective from the academic year 2015 – 2016)

HUMAN RESOURCE MANAGEMENT

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS.: 52

CODE: 15CM/PE/HR34

OBJECTIVES OF THE COURSE

- To provide an understanding of the importance of Human Resource Management.
- To expose students to the managerial, operative and maintenance aspects of the human resources in an organization.

Unit 1		
Introduction		(10 hrs.)
1.1	Significance and objectives of HRM	
1.2	Functions and Scope of HRM.	
Unit 2		
Procuring Human Resource		(12 hrs.)
2.1	HR Planning - Objectives and Process of manpower planning.	
2.2	Job Analysis, Job Description, Job Specification	
2.3	Recruitment – Sources	
2.4	Selection - Procedure	
Unit 3		
Maintaining Human Resource		(10 hrs.)
3.1	Orientation, Placement	
3.2	Training – Methods	
3.2	Performance Appraisal - Methods	
Unit 4		
Retaining and Compensating Human Resource		(10 hrs.)
4.1	Promotion – Factors, Basis of Promotion	
4.2	Compensation – Factors, Types	
Unit 5		
Ethical Issues in HRM		(10 hrs.)
5.1	Ethics- Nature and Importance of Ethics in HRM	
5.2	HR Ethical Issues and How to Manage Ethics in HR	

BOOK FOR STUDY

Aswathappa. K. *Human Resource Management*. New Delhi: Tata Mc Graw Hill, 2007.

BOOKS FOR REFERENCE

Flippo. V. Edwin. *Personnel Management*. New Delhi: Mc Graw Hill, 2004.

Gupta. C.B. *Human Resource Management*. New Delhi: Sultan Chand, 2014.

Khanka, S.S. *Human Resource Management*. New Delhi: Sultan Chand, 2014.

Prasad, L.M. *Human Resource Management*. New Delhi: Sultan Chand, 2014.

Mamoria C.B. *Personnel Management*. Mumbai: Himalaya, 2004.

JOURNALS

International Journal of Human Resource Management

The Human Resource Management Review

Human Resource Management International Digest

Human Resource Management Journal.

WEB RESOURCES

<http://hrcouncil.ca/hr-toolkit/planning-strategic.cfm>

<http://www.hrware.com/recruitment/88-2/>

<http://www.educationobserver.com/forum/showthread.php?tid=12165>

<http://managementhelp.org/training/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10=30 Marks (from a choice of four questions –Max words 500)

Section B - 1x20=20 (from a choice of two questions – Max words 1200)

Third Component:

List of Evaluation Modes:

Assignment

Seminar

Class presentation and group discussion

Case study

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A – 6x10= 60(from a choice of eight questions –Max words 500)

Section B – 2x20= 40(from a choice of four questions – Max words 1200)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600086
M.COM. DEGREE

SYLLABUS
(Effective from the academic year 2015-2016)

TRAINING AND DEVELOPMENT

CODE: 15CM/PI/TD14

CREDITS: 4

OBJECTIVE OF THE COURSE

- To enlighten the students on the importance and need for training and development.
- To familiarize with the pedagogy for training
- To enable students to understand the human resource development process.

Unit 1

Introduction to Training and development

- 1.1 Definition of HRD – Objective and Principle of HRD
- 1.2 Need for Training and Development
- 1.3 Difference Between Training and Development
- 1.4 Challenges in Training

Unit 2

Pre-requisites to Effective Training

- 2.1 Creating a climate for training
- 2.2 Principles of training – understanding learning styles of the trainees.
- 2.3 Resistance to training and the steps to overcome

Unit 3

Designing a Training Programme

- 3.1 Need Analysis – Meaning and Significance of Need Analysis
- 3.2 Types of Need Analysis, Components of Need Analysis
- 3.3 Design and Development of Training

Unit 4

Training Methods and Techniques – On the Job Training, Executive Development Programme

- 4.1 Training Aids – Meaning and Significance
- 4.2 Types of Training Aids.

Unit 5

Training Implementation

- 5.1 Implementation – Meaning and Significance of Training Implementation
- 5.2 Approaches to Training Implementation
- 5.3 Training Evaluation – Need and Significance, Concept of Return on Investment

BOOKS FOR REFERENCE

Blanchard Nick P., James W. Thacka, *Effective Training, Systems, Strategies & Policies* 2nd edition , New Delhi, Prentice Hall. 2005.

Kumar KBS, *Training and Development: Country Experience*, ICFAI University Press. 2007.

Lynton P Rolf, *Training for Development*, New Delhi ,Vistaar 2005.

Noe, *Employee Training and Development*, New Delhi, Tata Mc Graw Hill 2008.

Paul Donovan, *The training need analysis*, Research Press Business Books 2007.

Raj Aparna, *Human Resource Management – Training theory and practice*, New Delhi, Kalyani Publishers, 2005.

Srinivas Kandula R., *Strategic Human Resource Development*, New Delhi, Prentice Hall of India, 2001.

Udai Pareek, *Training Instruments in HRD*, 2nd edition, New Delhi, Tata McGraw Hill, 2002.

Vasudeva, *Training and Development*, Common wealth. 2002

Vohra Munish, *Management Training and Development*, New Delhi, Anmol

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A– 5 x 8 = 40 marks (5 out of 7 questions to be answered in 300 words each)

Section B– 3 x 20=60 marks (3 out of 5 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.COM DEGREE

SYLLABUS

(Effective from the academic year 2015-2016)

ADVERTISING AND SALESMANSHIP

CODE: 15CM/PI/AS14

CREDITS: 4

OBJECTIVES OF THE COURSE

- To enable students to understand the growing demand of the promotional aspects of advertising
- To provide an insight into salesmanship as an art

Unit 1

Introduction

- 1.1 Role of advertising
- 1.2 Advertising Media – Types and Media choice criteria

Unit 2

Advertisement Copy

- 2.1 Elements of an Ad-copy and kinds of copy
- 2.2 Ad-layout – structure and quality
- 2.3 Steps in planning an Ad-campaign

Unit 3

3.1 Salesmanship

- 3.1.1 Salesmanship as a science, art and profession
- 3.1.2 Psychology in selling, effective presentation and demonstration
- 3.1.3 Organization of a sales department – purpose and types.

3.2 Sales Personality – Qualities and Traits

Unit 4

Selling Methods

- 4.1 Process of selling
- 4.2 Sales meetings and Sales contests

Unit 5

Sales Performance and Compensation

- 5.1 Evaluation of Sales Performance – Quantitative and Qualitative methods
- 5.2 Types of Compensation Plans

BOOKS FOR REFERENCE

Courtland L., Bovee, John V. Thill, Geroge, Dovel and Marian Burk Wood, *Advertising Excellence*, New Delhi Tata Mc Graw Hill Inc., 2004.

David A., Aaker, Rajeev Batia, John G. Meyers, *Advertising Management*, New Delhi Prentice Hall of India Pvt., Ltd, 2002.

Gandhi J.C., *Marketing – A Managerial Introduction*, New Delhi Tata Mc Graw Hill Publication Co., Ltd., 2006.

John R. Rossiter, Larry Percy, *Advertising and Promotion Management*, New Delhi Tata McGraw Hill Inc., 2005.

Still Cundiff and Govoni, (2006), *Sales Management – Decisions, Strategies and Cases*, New Delhi, Prentice Hall, India, 2006.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100 Duration: 3 hours

Section A– 5 x 8 = 40 marks (5 out of 7 questions to be answered in 300 words each)

Section B– 3 x 20=60 marks (3 out of 5 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.COM DEGREE

SYLLABUS

(Effective from the academic year 2015-2016)

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CODE: 15CM/PI/AS14

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David A., Aaker, Rajeev Batia, John G. Meyers, *Advertising Management*, New Delhi Prentice Hall of India Pvt., Ltd, 2002.

Gandhi J.C., *Marketing – A Managerial Introduction*, New Delhi Tata Mc Graw Hill Publication Co., Ltd., 2006.

John R. Rossiter, Larry Percy, *Advertising and Promotion Management*, New Delhi Tata McGraw Hill Inc., 2005.

Still Cundiff and Govoni, (2006), *Sales Management – Decisions, Strategies and Cases*, New Delhi, Prentice Hall, India, 2006.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100 Duration: 3 hours

Section A– 5 x 8 = 40 marks (5 out of 7 questions to be answered in 300 words each)

Section B– 3 x 20=60 marks (3 out of 5 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

ALGORITHMS AND DATA STRUCTURES

CODE: 15CS/PC/AD14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the design of algorithms and analysis techniques
- To enable the students to analyse the time and space complexity of algorithms
- To have a good understanding on different data structures
- To understand the kinds of problems that uses the data structures and the algorithms for solving them

Unit 1 (13 hrs.)

Introduction to Algorithms

1.1 Basic Concepts

Basic steps in complete development of Algorithm - Analysis and complexity of Algorithm – Asymptotic notations - Problem Solving techniques and examples

1.2 ADT

List ADT, Stacks ADT, Queue ADT

Unit 2 (16 hrs.)

2.1 Algorithm Design Model

Greedy Method - Divide and Conquer - Dynamic Programming – Backtracking – Branch and Bound

2.2 Trees

Preliminaries Binary Tree, Search Tree ADT, Binary Search Trees, AVL Trees, Tree Traversals, B-Trees

Unit 3 (13 hrs.)

3.1 Hashing

General Idea, Hash Function, Separate Chaining, Open Addressing, Rehashing, Extendible Hashing, Priority Queues, Model, Simple Implementations, Binary Heap, Applications

Unit 4 (11 hrs.)

4.1 Sorting

Sorting - Preliminaries, Insertion Sort, Shell Sort, Heap Sort, Merge Sort, Quick Sort, External Sorting

Unit 5

(12 hrs.)

5.1 Graphs

Definitions, Topological Sort, Shortest Path Algorithm, Minimum Spanning Tree, Application of Depth First Search

5.2 Theory of NP-Completeness

Formal language framework, Complexity classes – P, NP - NP Reducibility and NP-Complete, NP-Hard

TEXT BOOKS

Aho, J. E. Hopcroft and J. D. Ullman. *Design and Analysis of Computer Algorithms*. 1st ed. Addison-Wesley, 2009.

Horowitz and Sahani. *Fundamentals of Computer Algorithms*. 2nd ed. Galgotia, 2008.

Weiss, M. A. *Data Structure and Algorithm analysis in C*. 2nd ed. Pearson Education Asia, 2002.

BOOKS FOR REFERENCE

Baase, S. and Allen Van Gelder. *Computer Algorithms-Introduction to Design and Analysis*. New Delhi: Pearson Education, 2008

Goodrich, M.T. and R. Tamassia. *Algorithm Design: Foundations, Analysis, and Internet Examples*. New Delhi: Wiley, 2006.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Answer all the questions)

Section B - $4 \times 5 = 20$ marks (4 out of 5)

Section C - $2 \times 10 = 20$ marks (2 out of 3)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

Tracing algorithms

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

DATABASE MANAGEMENT SYSTEMS

CODE: 15CS/PC/DB14

CREDITS : 4

L T P : 3 0 2

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To learn the fundamentals of data models and to conceptualise and depict a database system using ER diagram
- To study SQL and relational database design
- To know the fundamental concepts of transaction processing- concurrency control techniques and recovery procedure
- To have an understanding of Storage and Query processing techniques

Unit 1 (13 hrs.)

1.1 Database Basics

Evolution of Database Management System - Advantages and Disadvantages of Database Management System – Characteristics of DBMS – DBMS Architecture – Database Models – Data Flow Diagrams – ER Model – Relational Algebra – Introduction – Flat file Database – Relational Database Model – Structure – Keys – Relational Algebra

1.2 Normalization

Functional Dependencies - 1NF, 2NF, 3NF, BCNF, 4NF - Oracle Database Server

Unit 2 (13 hrs.)

2.1 SQL Basics

SQL – Introduction to Operators in SQL, DDL, DML, TCL - DDL, DML and TCL commands – Data Retrieval

2.2 Constraints

Defining Constraints – Table level and Column level, Entity Integrity, Domain Integrity, Referential Integrity constraints - Constraints related query – Adding, Dropping and Disabling a constraint

2.3 Single Row Functions

Single Row Functions – Date, Numeric, Character, Conversion, Miscellaneous Functions

Unit 3 (15 hrs.)

3.1 SQL Functions

Group Functions, Set operators –union, minus and intersect

Advanced Database Constructs - GROUP BY, HAVING, ORDER BY, UNION, NULL

3.2 Joins and Sub queries

Joins – Equi Join, Non-Equi Join, Outer Join and Self-Join - Sub queries – IN, Exists, Correlated Sub queries - Table partition – View – Synonym – Sequence - Index- Unique, Composite - Oracle Privileges and Roles

Unit 4 (14 hrs.)
4.1 PL/SQL Blocks
PL/SQL Basics – Structure – PL/SQL and Oracle – Exceptions - Predefined, User defined
4.2 Cursors and Triggers
Cursors and Cursor management – Implicit and Explicit Cursors – Advanced Cursors -
Procedures and functions - Database triggers - Parts of a trigger, Types of Triggers

Unit 5 (10 hrs.)
5.1 Object-Oriented and Object Relational Databases
Object Identity - Object Structure and Type Constructors - Encapsulation of Operations -
Methods and Persistence - Database Design for an ORDBMS - Nested Relations and
Collections - Storage and Access methods
5.2 Data Warehousing and OLAP
Query processing, Optimisation and Execution Plan – Index File Organisation – Hashing
Distributed Architecture – Data Warehousing and Data Mining – Online Analytical
Processing and Materialised Views – OLAP concepts – Materialised Views – Oracle
features of Data Warehousing – Case study

TEXT BOOKS

Gupta, Das, Pranab Kumar, Krishna and P. Radha. *Database Management System Oracle SQL and PL/SQL*. 2nd ed. India: PHI, 2013.

Kimball, Ralph, Reeves, Laura et al. *Data warehousing lifecycle Toolkit: expert methods for designing, developing, and deploying data warehouses*. 2nd ed. USA: John Wiley, 2008.

Ponniiah, Paulraj. *Data Warehousing Fundamentals*. 2nd ed. USA: John Wiley, 2009.

Silberschatz, A., Henry F. Korth and Sudarshan S. *Database System Concepts*. 5th ed. New Delhi: Tata McGraw Hill, 2006.

BOOKS FOR REFERENCE

Date, C. J., *Introduction to Database Systems*. 8th ed. New Delhi: Pearson Education, 2009.

Elmasri and Navathe. *Fundamentals of Database System*. 6th ed. New Delhi: Pearson Education, 2010.

Ramakrishna, Raghu and Johannes Gerhke. *Database Management Systems*. New Delhi: Tata McGraw Hill, 2003.

WEB RESOURCES

www.w3schools.com

<http://beginner-sql-tutorial.com/sql-group-functions.htm>

<http://www.tutorialspoint.com/mysql/index.htm>

<http://www.studytonight.com/dbms/database-normalization.php>

<http://www.oracle.com/technetwork/tutorials/index.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Seminars

Quiz

Group discussion

Assignments

Normalizing tables and Extracting relevant data

Query analysis and optimisation

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 × 5 = 20 marks (4 out of 6)

Section C - 2 × 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

ADVANCED PROGRAMMING WITH C

CODE : 15CS/PC/AP14

CREDITS: 4

L T P: 2 1 3

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To introduce the syntax, semantics and various features of C language
- To highlight the benefits of using pointers
- To help the students to write programs to implement data structures using C

Unit 1

Introduction (12hrs.)

- 1.1 Basic Concepts of C Programming– Introduction, Constants, Variables and Keywords, Data Types
- 1.2 Control Structure –Decision, Loop, Case
- 1.3 Arrays – One-Dimensional

Unit 2

Functions and Pointers (16 hrs.)

- 2.1 Functions–Purpose, Passing Values, Scope Rule, Calling Convention -Call by Value, Call by Reference – Passing Arrays to Functions - Recursion and Stack
- 2.2 Pointers -The & and * Operators – Pointer Expressions – Terminologies – char, int and float pointers – Passing Addresses to Functions – Functions returning Pointers

Unit 3

Structures and Pointers (16 hrs.)

- 3.1 Structures - Introduction, Declaring, Accessing and Storing -Array of Structures - Additional features -Uses
- 3.2 Pointers and Structures – Structure, Pointers, Offsets of Structure elements
- 3.3 Dynamic Memory Allocation
malloc, calloc, realloc, free

Unit 4

4.1 Implementing Data Structures (22 hrs.)

- Singly Linked lists- Stack and Queues – Double linked Lists – Merging of Linked Lists – Sorting a Linked List – Circular Linked List – Trees – Binary Search Tree

Unit 5**(12 hrs.)****5.1 Storage Classes in C**

Automatic – Register – Static - External

5.2 Command Line Arguments

argc, argv

5.3 The C Preprocessor

Features, Macro Expansion, File Inclusion, Conditional Compilation

5.4 Files

Data Organisation – File Operation – A File-Copy Program - File Opening Modes

Unit 4 – Only for Practicals**TEXT BOOKS**Kanetkar, Yashavant. *Let Us C*. 13th ed. India: BPB, 2006.Kanetkar, Yashavant. *Understanding Pointers in C*. 4th ed. India: BPB, 2003.**BOOKS FOR REFERENCE**Balagurusamy, E. *Data Structures Using C*. New Delhi: 1st ed, McGraw Hill, 2013.Kernighan, Brian, W. and Dennis M. Ritchie. *The C Programming Language (Ansi C Version)*. 2nd ed. USA: Prentice Hall, 1988.**WEB RESOURCES**<http://www.cprogramming.com/tutorial/c-tutorial.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Quiz

Assignment

Debugging

Seminar

Implementation of data structures

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks(Answer all the questions)

(Atleast 1 question to be set from each unit excluding 4th unit)

Section B - 4x5 =20 marks (4 out of 6)

(Atleast 1 question from each unit excluding 4th unit)

Section C- 2x10 = 20 marks(2 out of 3)

(Atleast 1 question from each unit excluding 4th unit)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

FORMAL LANGUAGES AND FINITE AUTOMATA

CODE:15CS/PC/FF24

CREDITS : 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To understand the theoretical foundations of computer science through study of mathematical and abstract models of computers and the theory of formal languages and finite automata

Unit 1 (18hrs.)

1.1 Fundamentals and Finite Automata

Basic concepts - Strings, Alphabets, Languages, Finite State Machine, Definitions, Finite Automaton model, Acceptance of Strings and Languages, Deterministic Finite Automaton (DFA) and Non-deterministic Finite automaton (NFA) - Transition diagrams and Language recognisers, Acceptance of languages, Equivalence of NFA and DFA (Proof needed), NFA with ϵ - transitions

Unit 2 (14 hrs.)

2.1 Regular Languages

The operators of Regular Expressions - Building Regular Sets Expressions, Precedence of Regular Expression operators, Finite Automata and Regular Expressions- From DFA's to Regular Expressions and Conversion of a given regular expression into a Finite Automata, Conversion of DFA into a Regular Expression by eliminating states, Pumping Lemma for Regular Sets (Proof needed), Closure Properties of Regular Sets (proofs not required)

Unit 3 (12 hrs.)

3.1 Grammar Formalism

Definition of a Context Free Grammars, Derivations using a Grammar, Language of a Grammar, Leftmost and rightmost derivation of strings and sentential forms, Parse Trees – Constructing parse trees, Yield of a parse tree, From Trees to derivations, Ambiguous Grammars, Removing Ambiguity from Grammars, Leftmost Derivation, Inherent ambiguity, Normal forms for Context Free Grammars

Unit 4**(11 hrs.)****4.1 Pushdown Automata**

Definition – Model - Graphical notation - Instantaneous descriptions - Acceptance of Context Free Languages - Acceptance by Final State and Acceptance by Empty State and its Equivalence - Equivalence of Context Free Grammars and Pushdown

Automata - Inter-conversion (Proofs not required) - Introduction to Deterministic Pushdown Automata

4.2 Turing Machines

Notation - Instantaneous descriptions - Transition Diagrams – Language - Turing

Machines and Halting - Storage in the State - Multiple Tracks – Subroutines – Multitape Turing Machines

Unit 5**(10 hrs.)****5.1 Applications**

Applications of Finite Automata - Text Search – Finding Strings in Text,

Nondeterministic Finite Automata for Text Search, A DFA to Recognise a set of Keywords - Applications of Regular Expressions - Regular Expressions in UNIX,

Lexical Analysis, Finding Patterns in Text - Applications of Context Free Grammars

– Parsers, the YACC parser- Generator, Markup Languages, XML and Document– Type Definitions

TEXT BOOKS

Hopcroft, H.E., Rajeev Motwani and Ullman J. D. *Introduction to Automata Theory Languages and Computation*. 3rded. Pearson, 2011.

Martin, John C. *Introduction to languages and the Theory of Computation*. 4thed. New Delhi: TMH, 2011.

BOOKS FOR REFERENCE

Cohen, Daniel I.A. *Introduction to Computer Theory* 2nded. USA: John Wiley, 2007.

Mishra and Chandrashekar. *Theory of Computer Science – Automata Languages and Computation*. 3rded. India: PHI, 2009.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Answer all the questions)

Section B - $4 \times 5 = 20$ marks (4 out of 5)

Section C - $2 \times 10 = 20$ marks (2 out of 3)

Third Component:

Seminars

Quiz

Group discussion

Assignments

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)

(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)

(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)

(Atleast 1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

OBJECT ORIENTED PROGRAMMING WITH JAVA

CODE: 15CS/PC/OP24

CREDITS: 4

L T P: 3 1 2

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To enable the students to understand and appreciate the need for Object Oriented Programming
- To equip the students in writing programs using Java
- To enable the students to understand GUI Programming with data base connectivity

Unit 1

1.1 Introduction to Java (15hrs.)

Overview – Features - Fundamental OOPS concepts – JDK – JRE –JVM -
Structure of a Java program - Data types –Variables –Arrays –Operators –Keywords -
Naming Conventions - Control statements, Type conversion and Casting - Scanner -
String - equals(),equalsIgnoreCase(),length()

Unit 2

(20hrs.)

2.1 Classes and Objects

Class – Objects –Methods -Method Overloading -Constructors - Constructor
Overloading -this keyword - usage of static with data and methods -Garbage
Collection -Access Control

2.2 Inheritance

Concept – extends keyword -Single and MultilevelInheritance –Composition –
super keyword - Method Overriding -Abstract Classes -Dynamic Method Dispatch –
Usage of final withdata, methods and classes

2.3 Packages and Interfaces

Concepts -package and import keywords -Defining, Creating and Accessing a
Package – Interfaces -MultipleInheritance in Java, Extending and Initialising fields
inInterfaces

Unit 3 (15hrs.)

3.1 Exception Handling

Exception handling- Types of Exceptions- try, catch, throw, throws and finally keywords - User defined Exceptions

3.2 JDBC

Database Connectivity- Types of JDBC drivers- Executing statements- Prepared statements- Callable statements - Mapping SQL types to Java- ResultSetMetadata

Unit 4 (20hrs.)

4.1 Multithreading

Introduction - LifeCycle of a Thread, Thread class and Runnable Interface, Thread Priorities, Synchronisation

4.2 GUI Programming with JavaFX

JavaFX Basic Concepts – Packages - Stage and Scene Classes - Nodes and Scene Graphs – Layouts -The Application Class and the Lifecycle Methods -Launching a JavaFX Application - JavaFX Application Skeleton - Compiling and Running - Application Thread

4.3 JavaFX Controls

Label –Button – Image –RadioButton –CheckBox – ListView- ComboBox- TextField - ScrollPane

Unit 5 (8hrs.)

5.1 Event

Event Handling – Input Event, Action Event and Window Event

5.2 Java Library

Java.util – List, ArrayList

TEXT BOOKS

George Reese. *Database Programming with JDBC & Java*. 2nded. USA: O'Reilly.

Schildt, Herbert. *The Complete Reference – Java*. 9thed. USA: McGraw Hill.

BOOKS FOR REFERENCE

Dietel&Dietel. *Java How to Program*. 8thed. USA: Pearson Education.

Eckel, Bruce. *Thinking in Java*. 4thed. USA: Pearson Education.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Quiz

Assignment

Debugging

Seminar

Mini Project

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 x 5 = 20 marks (4 out of 6)

Section C - 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015-16)

OPERATING SYSTEMS

CODE: 15CS/PC/OS24

CREDITS: 4

L T P:3 0 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the services provided by and the design of an operating system
- To give hands-on experience in working in Linux environment
- To expose the students to open source OS code

Unit 1 (12 hrs.)

Introduction to Operating System

- 1.1 Introduction to OS -Structure, Operations, Computing Environments, Services, System Calls and its types, System Programs, OS Design and Implementation OS Debugging Operating, System Generation, System Boot
- 1.2 UNIX Operating System - History of UNIX,Shell, UNIX File System Structure, Commands for files and directories cd, cp, mv, rm, mkdir, more, less, creating and viewing files, using cat, date, who, pwd -filter commands –head tail, cut, paste, grep – regular expression - sort

Unit 2 (11 hrs.)

Processor Management

- 2.1 Process - Concept, Process Control Block, Process operations, Scheduling Algorithms - Short term and long term process scheduling policies - Scheduling Criteria -Multiple Processor Scheduling
- 2.2 Scheduling Algorithms - FCFS, SJF, Priority and Round Robin Scheduling
- 2.3 Critical section, Semaphores,Multithreading at System/User level
- 2.4 Process Synchronisation and Deadlock - Monitors, Deadlock Prevention and Avoidance, Deadlock Detection and Deadlock Recovery
- 2.5 Process Utilities - sh process, Parents and children, Process status, System process, Mechanism of process creation, Internal and external commands, running jobs in background, KILL, NICE, Job control, at and batch, cron

Unit 3 (12 hrs.)

File Organisation

- 3.1 File organisation and Access methods -Logical and Physical File structure -File Allocation methods, -Linked and Index Allocation - File Protection and Security - Directory structure -Single level, Two level,Tree structure - Free Space Management - Allocation Methods - Efficiency and Performance – Recovery – FAT32 and NTFS

3.2 File System - File Access Permission – chmod, chown, chgrp -File Comparisons - View Files -Listing files with attributes – Wildcards - Translating Characters - Links and itstypes - The File System – Partitions, File Systems, KernelAccesses – Mounting -umask, ulimit - I/O redirection – Pipes - The vi editor

Unit 4 (15 hrs.)

Memory Management

4.1 Memory Management Techniques, Single Partition Allocation, Multiple Partition Allocation – Swapping -Paging and Segmentation -Segmented-Paged Memory Management Techniques -Logical and Physical Address space - Address Mapping - Demand paging - Virtual memory, protection and address mapping hardware, Pagefault, Page replacement and Page removal algorithms
4.2 Shell Programming-Types of Shell -Environment Variables -Shell Variables Command-line Arguments – echo –expr –bc- if statement -case statement - while - until and forstatements –break –continue- set

Unit 5 (15 hrs.)

Device Management

5.1 Classification of device according to speed, Disk structure
5.2 Disk scheduling - FCFS scheduling, SSTF scheduling
5.3 Access method and storage capacity
5.4 Disk Utilities - Disk usage, disk free, dd, Backups- cpio,tar,System calls for file management, directory management

TEXT BOOKS

Silberschatz, Abraham,Peter Baer Galvin and Greg Gagne.*Operating System Concepts*.8th ed. Addison Wesley.(Chapters 1-12)

Sumitabha Das. *UNIX – Concepts & Applications*. 3rded. New Delhi:TataMcGraw Hill, 2000. (Chapters 4-13,15,16)

YukunLiu,YongYue,LiweiGuo*UNIX Operating System The Development Tutorial via UNIX Kernel Services*.Beijing: Higher Education Press (Chapters 1,2,6-10)

BOOKS FOR REFERENCE

KanetkarYashwant.*UNIX Shell Programming*.BPB.

Rosen Kenneth, Douglas Host, Rachel Klee and Richard Rosinski.*UNIX: The Complete Reference*.2nd ed.McGraw Hill/Osborne, 2007.

SobellM. G.*A Practical Guide to Linux Commands, Editors, and Shell Programming*. USA:Pearson Education

WEB RESOURCES

www.tutorialspoint.com/unix

www.unixtutorial.org/

www.guru99.com/unix-linux-tutorial.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Implementation of OS Concepts in linux using gcc

Case Study – Tracing any open source OS code

Seminar

Assignment

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 × 5 = 20 marks (4 out of 6)

Section C - 2 × 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

OBJECT ORIENTED SYSTEM DEVELOPMENT

CODE: 15CS/PC/OU24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an understanding of various Object Oriented concepts along with their applicability contexts
- To learn the life cycle of a software development process
- To learn various modelling techniques using UML

Unit 1 (11 hrs.)

1.1 Introduction to Software Engineering

Introduction - Software Engineering Failures – Concepts -Development Activities - Managing Software Development -Case Study

1.2 Modeling with UML

Introduction - Modeling Concepts -A Deeper View into UML

Unit 2 (12 hrs.)

2.1 Project Organisation and Communication

Introduction -A Rocket Example -An Overview of Projects - Project Organisation and Project Communication Concepts -Organisational Activities

Unit 3 (14 hrs.)

3.1 Requirements Elicitation

Introduction - Usability Examples - An Overview of Requirements Elicitation - Requirements Elicitation Concepts -Requirements Elicitation Activities - Managing Requirements Elicitation - Case Study

3.2 Analysis

Introduction -Optical Illusion - An Overview of Analysis - Analysis Concepts - Analysis Activities, From Use Cases to Objects, Managing Analysis - Case Study

Unit 4**(14 hrs.)****4.1 System Design - Decomposing the System**

Introduction - A Floor Plan Example -An Overview of System Design -System Design Concepts -System Design Activities - From Objects to Subsystems

4.2 System Design - Addressing Design Goals

Introduction - A Redundancy Example -An Overview of System Design Activities - Concepts - UML Deployment Diagrams -System Design Activities - Addressing Design Goals, Managing System Design -Case Study

Unit 5**(14 hrs.)****5.1 Object Design - Reusing Pattern Solutions**

Introduction, Bloopers - An Overview of Object Design - Reuse Concepts - Solution Objects, Inheritance, and Design Patterns -Reuse Activities - Selecting Design Patterns and Components,Managing Reuse - Case Study

5.2 Object Design - Specifying Interfaces

Introduction - A Railroad Example - An Overview of Interface Specification - Interface Specification Concepts - Interface Specification Activities - Managing Object Design - Case Study

TEXT BOOK

Bruegge,Bernd and Allen H. Dutoit. *Object-Oriented Software Engineering Using UML, Patterns, and Java*,2nd ed.USA:Prentice Hall, 2009.

BOOKS FOR REFERENCE

Bahrami, Ali.*Object oriented Systems Development*.New York: McGraw-Hill.

Larman, Craig. *Applying UML and Patterns*, 3rd ed.USA:Pearson, 2005.

Stephen, Schach. *Software Engineering*, 7th ed.New York: McGraw-Hill, 2007.

WEB RESOURCES

<http://cs-exhibitions.uni-klu.ac.at/index.php?id=448>

<http://www.smartdraw.com/tutorials/software-oose/oose.htm?exp=sof>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Answer all the questions)

Section B - $4 \times 5 = 20$ marks (4 out of 5)

Section C - $2 \times 10 = 20$ marks (2 out of 3)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Drawing UML Diagrams

Case Study

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOFT SKILLS

CODE : 15CS/PK/SS22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self development
- To instill confidence and face challenges

Unit 1 (6 hrs)

Behavioural Traits

- 1.1 Self Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and mannerisms
- 1.5 Experiential Learning – Based on activities

Unit 2 (5 hrs)

Team Work

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on activities

Unit 3 (5 hrs)

Time Management

- 3.1 Importance of time management
- 3.2 Planning and Prioritizing
- 3.3 Organizing skills
- 3.4 Action Plan
- 3.5 Experiential Learning – Based on activities

Unit 4 (5 hrs)

Conflict Resolution

- 4.1 Reasons for conflict
- 4.2 Consequences of conflict
- 4.3 Managing emotions
- 4.4 Methods of resolving conflicts
- 4.5 Experiential Learning – Based on activities

Unit 5

(5 hrs)

Career Mapping

- 5.1 Goal Setting and Decision Making
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv, (2002), **You Can Win**, Macmillan India Ltd., Delhi.

Mishra, Rajiv K., (2004), **Personality Development : Transform Yourself**, Rupa and Co., New Delhi.

Newstrom, John W. and Scannell, Edward E., (1980), **Games Trainers Play: Experiential Learning**, Tata McGraw Hill, New Delhi.

PATTERN OF EVALUATION (Totally Internal)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 86

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

NETWORK MANAGEMENT AND ADMINISTRATION

CODE: 15CS/PC/NA34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose students to technical concepts of computer networks
- To facilitate students to install and manage a networking operating system
- To enable an understanding of the various tools for managing a network effectively

Unit1

(13 hrs.)

1.1 Network Essentials

Introduction - Types of Networks - Network Topology - Basic elements in Networking - Network Connecting Devices - OSI model

1.2 Network Administration Fundamentals

Basics of Workstation, Server and Service

1.3 Windows Server 2012 Administration Overview

Windows Server 2012 and Windows 8 - Introduction to Windows Server 2012 - Name-Resolution Services - Using Domain Name System, Using Windows Internet Name Service

Unit 2

(12 hrs.)

2.1 Managing Servers Running Windows Server 2012

Server Roles - Role Services - Features of Windows Server - Server Core Installations - Installing Windows Server 2012 - Performing a Clean Installation – Performing an upgrade Installation - Managing Roles, Role Services, and Features - Performing Initial Configuration Tasks - Server Manager Essentials and Binaries – Adding and Removing Roles - Role Services and Features - Managing System Properties - Computer Name Tab - Hardware Tab

2.2 Managing Applications, Processes, and Performance

Task Manager - Viewing and Working with Processes - Administering Processes

2.3 Using Active Directory

Active Directory and DNS - Read-Only Domain - Controller Deployment - Working with Domain Structures - Working with Active Directory Domains - Using Computers with Active Directory - Raising or Lowering - Domain and Forest Functionality - Understanding the Directory Structure - Exploring the Data Store - Exploring Global Catalogs - Replication and Active Directory

- Unit 3** (10 hrs.)
- 3.1 Management Tools**
Defragmentation - Disk Cleanup - Printing – Printing Basics, Installing local printers, Sharing printers, Printing to a file, Printing from DOS - File System and Functions - FAT and FAT32, NTFS Compression, Remote Administration
- 3.2 Data Sharing, Security, and Auditing**
Using Shadow Copies - Using, Configuring, and Managing NTFS Disk Quotas - Understanding NTFS Disk Quotas and how NTFS Quotas Are Used
- 3.3 Data Backup and Recovery**
Creating a Backup and Recovery Plan - Figuring Out a Backup Plan, Basic Types of Backup, Selecting Backup Devices and Media, Buying and Using Backup Media
- Unit 4** (12 hrs.)
- 4.1 Networking with TCP/IP**
Installing TCP/IP Networking - Configuring TCP/IP Networking - Configuring Static IP Addresses
- 4.2 TCP/IP tools**
TCP/IP tools – Ping, Tracert, Ipconfig - Understanding DNS - Introduction to the Domain Name System - Different classes of IP address- Subnetting
- 4.3 Security**
Security Basics - Design a Security Policy - The Castle Defense System - The Security Plan - Use Software Restriction Policies - General Active Directory Domain Services Security
- Unit 5** (10 hrs.)
- 5.1 Basics of communication technology**
Components of a Wireless Communication System - Architecture of a mobile Telecommunication System - Wireless Networking Standards - Wireless Local Area Networks (WLAN) - Bluetooth Technology
- 5.2 Introduction to Mobile Computing and Wireless Networking**
Introduction - Mobile Computing vs. Wireless Networking - Mobile Computing Applications - Characteristics of Mobile Computing - Structure of Mobile Computing Application - Cellular Mobile Communication - Global System for Mobile Communications (GSM) - General Packet Radio Service (GPRS) - Universal Mobile - Telecommunication System (UMTS)

Workshop on Network Management should be conducted for the students

(8 hrs.)

The workshop should include the following:

Configuration of Peer – to – Peer Network
Creating Workgroups
Installation of Windows Server 2012
Connecting minimum of 2 client machines to the Server Machine
Login Creation in Server
Giving Access Rights, Sharing of Files, Printer Sharing
Backups
Remote Administration

TEXT BOOKS

Forouzan, Behrouz. *Data Communications and Networking*. 4th ed. New Delhi: Tata McGraw Hill, 2006.

Ivens, Kathy. *The Complete Reference – MS Windows Server 2003*. 1st ed. New Delhi: McGraw Hill, 2003.

Limoncelli, Thomas A, Christina J. Hogan and Strata R. Chalup. *The Practice of System and Network Administration*. 2nd ed. USA: Pearson, 2007.

Pattnaik, Prashanth Kumar and Rajib Mall. *Fundamentals of Mobile Computing*. New Delhi: PHI Learning, 2012.

Ruest, Danielle and Nelson Ruest. *The Complete Reference – MS Windows Server 2008*. New Delhi: McGraw Hill, 2010.

Stanek, William R. *Windows Server 2012 Pocket Consultant*. 1st ed. USA: Microsoft Press, 2012.

BOOKS FOR REFERENCE

Tanenbaum, Andrew S. *Computer Networks 5/e*. New Delhi: Pearson, 2010.

WEB RESOURCES

<http://www.microsoft.com/en-in/server-cloud/products/windows-server-2012-r2/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Answer all the questions)

Section B - $4 \times 5 = 20$ marks (4 out of 5)

Section C - $2 \times 10 = 20$ marks (2 out of 3)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Mock Installation, Disk Cleanup and Partitioning

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 86

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

VISUAL PROGRAMMING

CODE: 15CS/PC/VP34

CREDITS: 4

L T P : 3 0 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the concepts of Web Programming using ASP.NET
- To introduce advanced concepts of Web Technology and LINQ using C# and ASP.NET

Unit 1

1.1 C# Fundamentals (14 hrs.)

Overview of .NET Framework - C# Fundamentals- Variables and Constants, Value Types, Reference Types, Type Conversions, Boxing and Unboxing, Expressions and Operators, Flow Control and Exception Handling - Control Flow Statements: Selection Statements, Iteration Statements or Loops, Jump Statements - Exception Handling - try...catch...finally Statement, throw Statement - Exploring Namespaces, Classes and Objects - Syntax of a Class, Method as Class Member, Access Modifiers, Objects, Constructors and Destructors, Static Classes and Static Class Members - Properties

Unit 2

(13 hrs.)

2.1 ASP.NET

Life cycle- Specifying a Location for a Web Application -Single-File Page Model - Code-Behind Page Model - Adding controls to web form

2.2 Web Server Controls

The Control Class - The WebControl Class - The Button Control - The TextBox Control -The Label Control - The HyperLink Control -The LinkButton Control -The Placeholder Control - The HiddenField Control - The CheckBox Control -The RadioButton Control - The ListBox Control -The DropDownList Control -The Image Control -The ImageButton Control - The Table Control - Menus - Validation Server Controls - Master page - Web.Config

Unit 3 (14 hrs.)

3.1 State Management

Understanding the session object - Sessions and the Event Model, Configuring, In-Process Session State, Out-of-Process Session state - Application Object - Query strings - Cookies, -ViewState - Global.asax

3.2 XML and .NET

Basics of XML - Create XML Document - Reading XML with XmlReader - Reading XML with XmlDocument - Working with XmlNode - Using XPath with XmlDocument - Writing XML with XmlWriter - Writing XML with XmlDocument - The XMLDataSource Control

Unit 4 (12 hrs.)

4.1 LINQ

Introducing LINQ Queries - Standard Query Operators - Introducing LINQ to Dataset, SQL and XML - The LinqDataSource Control - Data Binding – Grid View, Details view, Forms view

Unit 5 (12 hrs.)

5.1 ASP. NET AJAX

Understanding the need for AJAX - Building a simple ASP.NET page without AJAX - Building a simple ASP.NET page with AJAX

5.2 Crystal Reports

Overview to Crystal Reports - Creating Crystal Reports with wizards - Integrating with Web Applications

Demo on deployment of web application

TEXT BOOKS

Deitel, Paul and Harvey M. Deitel. *C# 2012 for Programmers*. Pearson Education, 5th ed.

Kogent Learning Solutions. *C# 2012 Programming Covers .NET 4.5 Black Book*. Dreamtech press, 2013.

BOOKS FOR REFERENCE

Liberty, Jesse. *Programming C#*. 4th ed. O'Reilly Media, 2009.

Schildt, Herbert. *Complete Reference C#*. New Delhi: TMH Publication, 2009.

WEB RESOURCES

<https://msdn.microsoft.com/en-us/library/aa288436%28v=vs.71%29.aspx>

<http://www.w3schools.com/aspnet/aspnet.asp>

<http://csharp.net-tutorials.com/xml/introduction/>

<http://ajax.net-tutorials.com/basics/introduction/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Quiz

Assignment

Debugging

Seminar

Mini Project – Web Application Development

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 x 5 = 20 marks (4 out of 6)

Section C - 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 86
MASTER OF SCIENCE (INFORMATION TECHNOLOGY)
SYLLABUS

(Effective from the academic year 2015 – 2016)

ADVANCED JAVA PROGRAMMING

CODE: 15CS/PC/AJ34

CREDITS: 4

L T P : 3 0 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce students to multi-tier, object-oriented, Web based application
- To enable students to create applications using Servlets and Enterprise JavaBeans

Unit 1 (15hrs.)

1.1 Introduction to J2EE

Tiered model architectures – Principles and Goals, J2EE definition and Characteristics - J2EE technologies in a multi-tier architecture

1.2 Java Servlet Technology

Role of Servlets - Dynamic web pages -Servlets vs. other technologies -Structure of Servlets - Servlet that generates plain text -Servlet that generates HTML- Servlets and Packages - Life cycle - Handling Client Request – FormData - Format of HTTPResponse - Handling Cookies - Session Tracking - Request Dispatcher

Unit 2 (15hrs.)

2.1 JSP Technology

Overview - Static vs. Dynamic text - Dynamic code and good JSP design - Expressions – Scriptlets –Declarations - Servlet code resulting from JSP scripting Elements -Scriptlets and Conditional text -Predefined variables

2.2 JSP page Directive

Purpose -Designating which classes are imported - Specifying the MIME type of the Page - Generating Excel spreadsheets - Participating in Sessions -Designating pages to handle JSP errors

2.3 Including Files and Applets in JSP Pages

jsp:include -include directive – Need for jsp:include– jsp:include vs. include directive -jsp:plugin to include applets for the Java Plug-in

2.4 JSP Tag Extensions

Custom tags - Developing your first custom tags - Tag Libraries – Tag Library Descriptor - Taglib directive

Unit 3 (15hrs.)

3.1 Introduction to Java EE

Understanding Java EE -Standards, Architecture, Specifications

3.2 Java Persistence

JPA Specification Overview - Understanding Entities - Object-Relational Mapping
Querying Entities. Object-Relational Mapping -Mapping an Entity - Elementary
Mapping -Tables,Primary Keys, Attributes, Collection of Basic Types, Map of Basic
Types - Managing Persistent Objects -Querying an Entity - EntityManager -
Obtaining an Entity Manager - Persistence ContextManipulating Entities - persisting,
finding, removing, merging, updating - Entity life cycle

3.3 JPQL

Select - Binding Parameters - Queries- Dynamic Queries

Unit 4 (15 hrs.)

4.1 Enterprise Java Beans

EJB - Types, Anatomy, EJB Container, Dependency Injection and JNDI

4.2 Session Beans

Session Beans - Stateless, Stateful - Session Bean Model – Local - Remote interfaces -
Lifecycle of Session Bean

4.3 Sending Messages

Messages – JMS, MDB, Messaging Specification Overview, Send and Receive a
Message, Java Messaging Service - Point-to-Point, Publish-Subscribe,JMS API,
Message-Driven Beans -MDB Model- Consumer, Producer - Transaction -Handling
Exceptions

Unit 5 (5 hrs.)

5.1 EJB – Java EE Integration

The Business Problem - Preview of final website - Scoping Technical Requirements -
Business logic tier - Presentation tier

TEXT BOOKS

Goncalves, Antonio. *Beginning Java EE Platform with GlassFish*. 2nd ed. USA: Apress, 2010.

Hall, Marty and Larry Brown. *Core Servlets and JavaServer Pages*. 2nd ed. USA: Prentice Hall PTR, 2004

Sriganesh, Rima Patel et al. *Mastering Enterprise Java Beans 3.0*. 3rd ed. USA: John Wiley, 2006.

BOOKS FOR REFERENCE

Basham, Bryan, Kathy Sierra and Bert Bates. *Head First Servlets and JSP*. 2nd ed. O'Reilly, 2008.

Sierra, Kathy and Bert Bates. *Head First EJB*. 1st ed. USA: O'Reilly, 2003.

Bodoff, Stephaine, Dale Green et al. *The J2EE Tutorial*. 1st ed. USA: Pearson Education, 2002.

WEB RESOURCES

<http://download.oracle.com/javaee/6/tutorial/doc>

http://java.sun.com/j2ee/tutorial/1_3-fcs/doc/Servlets.html

http://java.sun.com/j2ee/tutorial/1_3-fcs/doc/JSPIntro.html

<http://java.sun.com/developer/onlineTraining/Beans/EJBTutorial>

http://download.oracle.com/javaee/1.3/jms/tutorial/1_3_1-fcs/doc/jms_tutorialTOC.html

<http://download.oracle.com/javase/jndi/tutorial>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Quiz

Assignment

Debugging

Seminar

Mini Project –Enterprise Application Development

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 x 5 = 20 marks (4 out of 6)

Section C - 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

RESEARCH METHODOLOGY

CODE : 15CS/PC/RM34

CREDITS: 4

L T P : 3 1 1

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To develop an understanding of the quantitative and qualitative research methods relevant to effectively address a particular research problem
- To understand the use of statistics and data analysis in research
- To develop core competencies in writing a research proposal

Unit 1 (13 hrs.)

1.1 Introduction to Research

Meaning – Objectives – Motivation – Types – Approaches – Significance – Research Methods vs Methodology - Research and Scientific Method – Importance of knowing how research is done - Research process - Criteria of good research - Necessity of defining a problem - Techniques involved in defining a problem - Meaning of Research Design

Unit 2 (12 hrs.)

2.1 Data Collection Methods

Primary Data - Observation Method, Personal Interview, Telephonic Interview, Mail Survey, Questionnaire design

2.2 Secondary Data

Internal Sources of Data - External Sources of Data - Data Presentation – Frequency Distribution, Cumulative Frequency Distribution, Relative Frequency Distribution, Charts

Unit 3 (15 hrs.)

3.1 Hypotheses Testing

Definition – Testing – Testing of Hypotheses - Concerning Means, Concerning Proportion, Concerning Variance

3.2 Non parametric tests

One Sample tests - One Sample Sign test – Chi-Square test – Kolmogrov – Smirnov test – Run test for randomness – Two Sample test - Two Sample Sign test – Mann Whitney U test - K Sample test – Kruskal Wallis test

Unit 4 (15 hrs.)

4.1 Data Analysis

Sensitivity analysis with data tables – Goal seek – Scenario Manager -
Summarising Data with Histograms and Descriptive Statistics - Pivot tables -
Summarising data with Database Statistical Functions – Using Correlation –
Multiple Regression - ANOVA

4.2 Multivariate Statistical Techniques

Discriminant Analysis - Factor Analysis – Cluster Analysis — Multiple
Regression and Correlation – Canonical Correlation – Application of Statistical
Software Package in Research

Unit 5

Report Writing

(10 hrs.)

5.1 Types of Report - Guidelines to review report - Typing instructions, Oral
presentation
5.2 Report writing using LATEX for a research problem

TEXT BOOKS

Kothari C. R. *Research Methodology Methods and Techniques*. 2nd ed. New Delhi: New Age, 2004.

Panneerselvam R. *Research Methodology*. 2nd ed. New Delhi: Prentice Hall, 2014.

BOOKS FOR REFERENCE

Raykov, Tenko, George A. Marcoulides. *An Introduction to Applied Multivariate Analysis*. 1st ed. USA: Routledge, 2008.

WEB RESOURCES

<https://explorable.com/research-methodology>

<http://www.palgrave.com/studentstudyskills/page/choosing-appropriate-research-methodologies/>

<http://www.limat.org/data/research/Research%20Methodology.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Answer all the questions)

Section B - $4 \times 5 = 20$ marks (4 out of 5)

Section C - $2 \times 10 = 20$ marks (2 out of 3)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Literature review

Problem analysis

Case Study and Report Writing

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

PHP WITH LINUX

CODE: 15CS/PC/PL44

CREDITS : 4

L T P : 3 0 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the students to open source technology
- To enhance the knowledge of web technology using HTML5 and PHP

Unit 1 (13 hrs.)

1.1 HTML5

HTML rules - Structure of HTML documents -Limitations of HTML - Introduction to HTML5 - Semantic/ Structural Elements- article, aside, bdi, details, dialog, figcaption, figure, footer, header, main, mark, menuitem, meter, nav, section, summary, time, wbr - Handling Forms – Graphics – canvas - Media Elements- audio, source, embed, video - Using CSS

Unit 2 (12 hrs.)

2.1 JavaScript

JavaScript and HTML Text - Variables, Operators, Functions, Arrays, Expressions and Control Flow - Literal and variables - The with statement - Using onerror, try, catch – Conditionals – Looping - Event Handling

Unit 3 (10 hrs.)

3.1 Objects

Object Hierarchy Model- Window Object, Document Object, String Object, Math Object, Date object, Boolean object, Location object, History Object - Regular Expression

3.2 Exceptional Handling

Handling errors by using try throw and catch statements

3.3 CSS and JQuery

Accessing CSS from JavaScript - JQuery

Unit 4 (16 hrs.)

4.1 PHP

Introduction to dynamic web content – Benefits - Setting up a development server– Introduction to PHP – Structure, Expressions and Control Flow - Expressions, Operators, Conditionals, Looping, Implicit and Explicit casting - Functions - PHP Functions, Including and Requiring Files – Arrays - Handling Forms using PHP –

Cookies - Sessions

Unit 5

(14 hrs.)

5.1 Database Connectivity with MySQL

Introduction to MySQL - Accessing MySQL Using PHP- Creating, Adding, Dropping, Deleting, Searching and Updating Data using PHP and MySQL

Practical on HTML5 and PHP using LAMP/XAMP web server in LINUX

TEXT BOOKS

Filson, Eric, EricRosebrock.*Setting up LAMP:Getting Linux, Apache, MySQL, and PHP Working Together*.SYBEX, 2008.

Nixon, Robin.*Learning PHP, MySQL, JavaScript, CSS and HTML5*. 3rded. USA: O'reilly, 2014.

BOOKS FOR REFERENCE

Converse Tim and Joyce Park with Clark Morgan.*PHP 5 and MySQL Bible*.India:Wiley,2008.

SchumannSascha and Deepak Veliath.*Professional PHP programming*.1st ed. Wrox, 1999.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Quiz

Assignment

Debugging

Seminar

Mini Project – Web Application Development in Linux Environment

End Semester Examination:

Theory – 50 marks

Duration – 1 ½ hrs.

Practical – 50 marks

Duration – 1 ½ hrs.

Theory Pattern

Section A - 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 x 5 = 20 marks (4 out of 6)

Section C - 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SCIENCE (INFORMATION TECHNOLOGY)
SYLLABUS

(Effective from the academic year 2015 - 16)

SOFTWARE QUALITY ASSURANCE AND TESTING

CODE: 15CS/PC/ST44

CREDITS : 4

L T P : 30 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To learn the practices that support the production of quality software
- To enable the students to understand the quality models and software testing techniques

Unit 1

(12 hrs.)

1.1 Introduction

Software Quality - Role of Testing - Verification and Validation, Objectives and Issues of Testing - Testing activities and levels - Sources of Information for Test Case Selection – White Box and Black Box Testing - Test Planning and Design – Monitoring and Measuring Test Execution - Test Tools and Automation - Test Team Organisation and Management

1.2 System Test Design

Test Design Factors - Requirement Identification - Characteristics of Testable Requirements - Test Design Preparedness Metrics - Test Case Design

Unit 2

(13 hrs.)

2.1 System Test Planning and Automation

Structure of a System Test Plan - Introduction and Feature Description – Assumptions – Test Approach - Test Suite Structure - Test Environment - Test Execution Strategy - Test Effort Estimation - Scheduling and Test Milestones - System Test Automation – Evaluation and Selection of Test Automation Tools - Test Selection Guidelines for Automation - Characteristics of Automated Test Cases - Structure of an Automated Test Case - Test Automation Infrastructure

Unit 3 (13 hrs.)

3.1 Unit Testing

Concept - Static Unit Testing - Defect Prevention - Dynamic Unit

Testing - Mutation Testing – Debugging - Unit Testing in extreme Programming

3.2 Control Flow Testing

Outline - Control Flow Graph - Paths in a Control Flow Graph - Path Selection Criteria –

All-Path Coverage Criterion - Statement Coverage Criterion - Branch Coverage Criterion

– Predicate Coverage Criterion - Generating Test Input - Examples of Test Data Selection

Unit 4 (13 hrs.)

4.1 Data Flow Testing

Data Flow Anomaly - Overview of Dynamic Data Flow Testing - Data Flow Graph –

Data Flow Terms - Data Flow Testing Criteria - Comparison of Data Flow Test Selection Criteria - Feasible Paths and Test Selection Criteria - Comparison of Testing Techniques

4.2 System Integration Testing

Concept - Different Types of Interfaces and Interface Errors - Granularity of System

Integration Testing - System Integration Techniques - Software and Hardware

Integration - Test Plan for System Integration - Off-the-Shelf Component Integration – Off-the-Shelf Component Testing - Built-in Testing

Unit 5 (14 hrs.)

5.1 Acceptance Testing

Types of Acceptance Testing, Acceptance Criteria, Selection of Acceptance Criteria,

Acceptance Test Plan, Acceptance Test Execution, Acceptance Test Report, Acceptance Testing in extreme Programming

5.2 Software Quality

Five Views of Software Quality - Quality Factors and Criteria - Relationship between

Quality Factors and Criteria - Quality Metrics - ISO 9126 - Quality Characteristics - ISO

9000:2000 Software Quality Standard - ISO 9000:2000 Fundamentals, ISO 9001:2000

Requirements.

TEXT BOOK

Naik,Sagar and Piyu Tripathy.*Software Testing and Quality Assurance: Theory and Practice*.New Jersey: Wiley, 2008.

BOOKS FOR REFERENCE

Jorgensen,Paul C.*Software Testing - A Craftsman's Approach*.Fl: CRC Press, 2003.

Smart,John.*Java Power Tools*. O'Reily Media, 2008.

William,Perry.*Effective methods for Software Testing*. 3rd ed. Asia: Wiley, 2006.

JOURNALS

Deming,W. E. *Out of the Crisis*. MIT, Cambridge, MA, 1986.

GarvinD. A.*What Does "Product Quality" Really Mean?*Sloan Management Review, Fall 1984, pp. 25–43.

IshikawaK. *What Is Total Quality Control* . Prentice-Hall, Englewood Cliffs, NJ, 1985.

Juran, J. M. and A. B. Godfrey. *Juran's Quality Handbook*, 5th ed. McGraw-Hill, New York, 1998.

Kilpatrick, J. Lean Principles. <http://www.mep.org/textfiles/LeanPrinciples.pdf>, 2003, pp. 1–5.

Kitchenham,B. and S. L. Pfleeger. *Software Quality: The Elusive Target*. *IEEE Software*, January 1996, pp. 12–21.

WEB RESOURCES

http://www.tutorialspoint.com/software_testing/

<http://www.softwaretestinghelp.com/>

<http://www.etestinghub.com/>

<http://www.qatutorial.com/>

<http://www.guru99.com/software-testing.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Seminars

Group discussion

Assignments

Writing Test cases using tools

Case studies

End Semester Examination:

Theory – 50 marks Duration – 1 ½ hrs

Practical – 50 marks Duration – 1 ½ hrs

Theory Pattern

Section A - 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 x 5 = 20 marks (4 out of 6)

Section C - 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS) – CHENNAI – 600 086
MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

PROJECT

CODE: 15CS/PC/PR49

CREDITS: 9

L T P: 0 0 12

OBJECTIVE OF THE COURSE

- To help students to develop an application to suit the research/business needs

GUIDELINES TO UNDERTAKE THE FINAL SEMESTER PROJECT

One of the important stipulations regarding project for M.Sc. is that it should be in the area of Computer Science/ Computer Applications. Students are required to develop an application to suit the research/business needs.

The Dissertation must include the following. These are general guidelines which may differ slightly as per the demand of the study topic.

Introduction

- Existing System
- Proposed System
- Create a set of Design principles to implement the proposed system

System Analysis

- Development Environment
- Requirement Specification
- Software Requirements Specification

System Design

- Logical Design of the System
- Database Design
- Screen Design
- Report Design

Implementation

- Database creation
- Coding

Code Review and Testing

- Code Review
- Testing Process

- Front-end Validation
- Back-end Validation

Deployment

Conclusion

- Summary of findings, conclusions for future enhancement
- Suggestions

Bibliography

Appendix

PATTERN OF EVALUATION

Internal Assessment – 50 marks

Based on the criteria listed below, internal marks will be awarded.

1. Timely completion of assigned tasks
2. Individual Involvement and team work
3. Quality of the Application and documentation (Design, Workflow, Testing, Precision, Relevance)
4. Achievement of project deliverables
5. Presentation of Completed work
6. Viva-Voce

End Semester Examination – 100 marks

Project Document must be submitted at the end of the semester. The student must present the completed project work. A viva-voce based on the work will also be conducted.

Mark will be allotted based on the following criteria which may differ slightly as per the demand of the study topic.

Requirement Analysis	– 10 marks
Database Design	– 10 marks
Screen Design	– 10 marks
Coding	– 10 marks
Validation	– 10 marks
Testing	– 10 marks
Reports	– 5 marks
Documentation	– 20 marks
Special Features	– 5 marks
Viva – Voce	– 10 marks

STELLA MARIS COLLEGE (AUTONOMOUS) – CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

WEB DESIGNING

CODE: 15CS/PE/WD14

CREDITS: 4

L T P: 2 0 3

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To develop an interactive design structure and produce special visual expressions
- To build data driven website using Drupal

Unit 1 (15 hrs.)

1.1 Photoshop

Design Principles - Starting to work in Adobe Photoshop - Using the Tools, Using Options bar and other panels, Undoing Actions, Customizing the workspace - Basic Photoshop Corrections - Working with selections - Layer basics - Correcting and Enhancing Digital Photographs – Masking - Advanced Compositing - Working with 3D Images - Preparing Files for the Web

Unit 2 (15 hrs.)

2.1 Flash

Introduction - Flash Player, File types, Workspace, Tools Panel - Property Inspector - Panels and Panel Groups – Timeline - Drawing tools - Line, Pen, Smart Shapes – Text – Filters - Working with Colors – Gradients - Custom Colors – Layers - Free Transform – Using Symbols and Library – Masking - Deco Tool, Working with Imported Files

2.2 Animation

Frames and Key Frames - Tweening - Motion, Classic, Shape - Motion Guide - Onion Skinning - Animating in 3D

Unit 3 (10 hrs.)

3.1 Action Script in Flash

Introduction - Placing ActionScript - Code Snippet Panel - Actions Panel - Script Assist - Adding and Removing Actions - Adding Actions to Frames- stop () Action Event Handlers - Adding Sound to Movies - Delivering the Final Movie

Unit 4 (13 hrs.)

4.1 Drupal

The Front End - Drupal's Public Interface - Menu structure, Main menu, Management menu, Navigation menu, User menu, Modules, Blocks and Regions - Using Drupal's Site Building Tools - The Default Drupal Themes - Working with the Default Modules Working with Blocks - Working with the Menus Manager - Drupal Content Types and Fields – Using CSS - Controlling How Content Is Created, Formatting Content and Media - Working with Images, Using WYSIWYG Editors - Managing the front page of your site

Unit 5 (12 hrs.)

5.1 Ubercart

Implementing ecommerce with Ubercart

BOOKS FOR REFERENCE

Adobe Creative Team. *Adobe Photoshop CS6 Classroom in a Book*.

Gerantabee, Fred and AGI Creative Team. *Adobe Flash Professional CS6 Classroom*.

Duckett, Jon. *HTML & CSS: Design and build websites*. John Wiley & Sons.

Dunwoodie, Brice, Ric Shreves. *Drupal 7 bible*. John Wiley & Sons.

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

- Practical Test: 50 marks
- Project: Developing a Web site - 50 marks
 - Designing a Theme using Photoshop – 15 marks
 - Animating contents – 20 marks
 - Developing front end using Drupal - 15 marks

End Semester Examination:

Project work will be assessed by the course teacher and external examiner for 50 marks

Evaluation Components

Project - 40 marks

Viva-voce – 10 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the year 2015 – 2016)

SECURITY ISSUES IN INFORMATION TECHNOLOGY

CODE : 15CS/PE/SI14

CREDITS : 4

L T P : 410

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To facilitate an understanding of concepts of security issues in Information Technology
- To identify security vulnerabilities and protect target applications

Unit 1 (15 hrs.)

1.1 Overview of System and Network Security

Building a Secure Organisation - Obstacles to Security - Ten Steps to Building a Secure Organisation- Don't Forget the Basics- Preparing for the Building of Security Control Assessments

1.2 Cryptography

Introduction –Encryption - Famous Cryptographic Devices –Ciphers - Modern Cryptography - Working of AES - Selecting Cryptography - The Process

1.3 Detecting, Preventing and Guarding against Intrusion

Detecting System Intrusion - Preventing System Intrusions - Guarding Against Network Intrusion

Unit 2 (15 hrs.)

2.1 Internet and Intranet Security

Internet Protocol Architecture-An Internet Threat Model-Defending Against Attacks on the Internet-Internet Security Checklist – Botnet Overview –Smartphones – Tablets - Intranet

2.2 Security Considerations

Plugging the Gaps - NAC and Access Control -Measuring Risk - Audits- Authentication and Encryption

2.3 Network Security

Wireless Network Security-Shielding the Wire: Network Protection -Weakest Link in Security - User Training -Documenting the Network - Change Management

2.4 Disaster Recovery

Rehearse the-Inevitable - Disaster Recovery - Controlling Hazards - Physical and Environmental Protection -Know Your Users - Personnel Security -Protecting Data Flow - Information and System Integrity -Security Assessments-Risk Assessments- Intranet Security Checklist

Unit 3

3.1 Wireless Network Security (12 hrs.)

Cellular Networks-Wireless Ad Hoc Networks -Security Protocols –WEP - Secure Routing – ARAN – SLSP – ING - Introduction to Wireless Sensor Network

3.2 Cellular Network Security

Overview of Cellular Networks -The State of the Art of Cellular Network Security - Security Management System – Principles of Information Security - Roles and Responsibilities of Personnel - Security Policies and Controls – Information Security Management Standards – Firewalls

Unit 4

(12hrs.)

4.1 Cyber, Network, and Systems Forensics Security and Assurance

Cyber Forensics-Analysis of Data -Cyber Forensics in the Court System - Understanding Internet History- Temporary Restraining Orders and Labor Disputes – NTFS-First Principles-Hacking a Windows XP Password-Network Analysis-Cyber Forensics Applied- Testifying as an Expert- Beginning to End in Court - Cyber Forensics and Incident Response -Securing E-Discovery and Network Forensics

Unit 5

(11hrs.)

5.1 Securing Cloud Computing Systems

Cloud Computing Essentials - Examining the Cloud Layers- Software as a Service (SaaS) - Managing Risks in the Cloud - Platform as a Service (PaaS) - Securing the Platform - Infrastructure as a Service (IaaS)-Leveraging Provider- Specific Security Options -Achieving Security in a Private Cloud -Meeting Compliance Requirements-Preparing for Disaster Recovery

5.2 Fault Tolerance and Resilience in Cloud Computing Environments

Introduction Cloud Computing Fault Model -Basic Concepts on Fault Tolerance - Different Levels of Fault Tolerance in Cloud Computing -Fault Tolerance against Crash Failures in Cloud Computing-Fault Tolerance against Byzantine Failures in Cloud Computing- Fault Tolerance as a Service in Cloud Computing

TEXT BOOKS

Vacca, John R. *Computer and Information Security Handbook*. 2nded.

Whitman, Michael E., Herbert J. Mattord. *Principles of Information Security*. 5thed.

BOOK FOR REFERENCE

Pfleeger, Charles P. and Shari Lawrence Pfleeger. *Security in Computing*, 4th ed.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Answer all the questions)

Section B - $4 \times 5 = 20$ marks (4 out of 5)

Section C - $2 \times 10 = 20$ marks (2 out of 3)

Third Component:

Seminars

Case studies

Group Discussions

Assignments

Quiz

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS) – CHENNAI – 600 086
MASTER OF SCIENCE (INFORMATION TECHNOLOGY)
SYLLABUS

(Effective from the academic year 2015 - 16)

MOBILE COMPUTING AND APP DEVELOPMENT

CODE: 15CS/PE/MC14

CREDITS: 4

L T P: 3 0 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To expose the students to various operating systems, protocols for mobile computing and App Development
- To enable students to develop and deploy mobile applications

Unit 1 (8 hrs.)

1.1 Operating Systems for Mobile Computing

Operating System Responsibilities in Mobile Devices – Managing Resources - Providing Different Interfaces - Mobile O/S – Special Constraints and Requirements – Windows Mobile- iOS – Android – BlackBerry

1.2 Mobile Application Development and Protocols

Mobile devices as Web Clients – WAP - J2ME - Android – History, Versions, SDK, Environment, Features - Application Components - Software Stack Structures - Advantages

1.3 Mobile Commerce

Applications of M-Commerce – B2C Applications - B2B Applications – Structure of Mobile Commerce – Pros and Cons of M-Commerce – Mobile Payment Systems – Mobile Payment Schemes – Security Issues

Unit 2 (17 hrs.)

2.1 Setting up an Android Development Environment

Installing the Android Developer Tool - Installing the Android SDK - Using ADT Tools from the Command Line - Creating Android Virtual Devices

2.2 Anatomy of android application

Creating an Example Android Application

2.3 Activities and Intents

Activities and Activity Lifecycle - Activity State Changes – Example - Saving and Restoring UI State - Intents- Explicit and Implicit Intents - Example

2.4 Android User Interface

Creating Views and Viewgroups - Layouts- Linear, Table, Relative, Absolute, Frame -Views – List, Grid, Scroll - Changing screen orientation - Creating GUI – Button, Text, Checkbox, Radio, Menus

Unit 3 (15 hrs.)

3.1 Event Handling

ClickListener – FocusChangeListener – TouchListener - MenuItemClickListener
LongClickListener

3.2 Building Apps for Content Sharing

Sending and Receiving Simple Data to and from other Apps, Sharing Files

Unit 4 (15 hrs.)

4.1 Database Programming

SQLite - SQLite Classes – Cursor - SQLite Database - SQLite Queries – Create,
Insert, Select, Update and Delete - Connecting to a Remote Database using
MySQL/PHP

Unit 5 (10 hrs.)

5.1 Enhancing User Interface

Notification - Action Bar – Dialogs – Search - Styles and Themes – Defining,
using Inheritance, Android Themes, Default Styles and Themes - Android SMS

TEXT BOOKS

Prasant Kumar Pattnaik, Rajib Mall. *Fundamentals of Mobile Computing*, 2012. PHI Learning Private Limited.

Neil Smyth, *Android App Development Essentials - First Edition*, 2014.

Jason Wei, *Android database programming*.

Paul Deitel, Harvey Deitel, Abbey Deitel. *Android™ for Programmers: An App-Driven Approach*. Prentice Hall.

BOOKS FOR REFERENCE

Dave Smith and Jeff Friesen, *Android Recipes: A Problem – Solution Approach*.

Marko Gargenta. *Learning Android*. O’Rielly.

WEB RESOURCES

<https://developer.android.com/training/index.html>

<http://www.mkyong.com/tutorials/android-tutorial>

http://www.vogella.com/tutorials/AndroidSQLite/article.html#databasetutorial_database

http://www.tutorialspoint.com/android/android_php_mysql.htm

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Quiz

Assignment

Debugging

Seminar

Mini Project-Mobile App Development

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 x 5 = 20 marks (4 out of 6)

Section C - 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

GAME PROGRAMMING

CODE: 15CS/PE/GP14

CREDITS:4

L T P: 2 0 3

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the concepts of Game design and development using Flash and ActionScript
- To enable the learning processes, mechanics and issues in Game Design
- To enable the students to develop games

Unit 1 (12hrs.)

1.1 Programming Foundations - How to Make a Video Game

Laying the foundation - Writing your first program - Publishing the SWF file

1.2 Making Objects

Understanding Interactive Objects - Drawing the first page - Creating a Character, using Buttons

Unit 2 (14 hrs.)

2.1 Programming Objects

Displaying the First Page of the Storybook - Programming Buttons - Understanding Events and Event listeners - Programming Storybook Buttons

2.2 Controlling Movie Clip Objects

Movie Clip Properties - Controlling Movie Clip Timelines

Unit 3 (13 hrs.)

3.1 Decision Making

Designing a GUI - Building a Simple Guessing Game - Learning more about Variables, Making Decisions, Polishing up

3.2 Controlling a Player Character

Controlling a Player Character with the Keyboard - Setting Screen Boundaries – Scrolling

Unit 4 (13 hrs.)

4.1 Bumping into Things

Changing a Dynamic Text Field - Triggering a Change of State - Reducing a Health Meter - Updating a Score - Picking up and Dropping Objects – Drawbacks of hitTestObject - Using hitTestPoint - Creating Objects with Block Movement – Working with Axis- Based Collision Detection

4.2 Object-Oriented Game Design

Introducing Object-Oriented Programming

Unit 5 (13 hrs.)

5.1 Platform Game - Physics and Data Management

Natural Motion using Physics

TEXT BOOK

Rex van der Spuy. *Foundation Game Design with Flash*. Apress, 2009.

BOOK FOR REFERENCE

Peters, Keith. *Foundation Action Script 3.0 Animation: Making Things Move!*. Apress, 2007.

WEB RESOURCES

www.makeflashgames.com/

www.kongregate.com/labs

www.asgamer.com/

www.as3gametuts.com/

PATTERN OF EVALUATION

Continuous Assessment

Total Marks : 50

- Practical Test: 50 marks
- Project - Interactive Game Development – 50 marks
 - Story board of the game to be created along with background, Character formation and animation using movie clips – 25 marks
 - Creating Game for the above storyboard, implementing concepts of player movement and gravity – 25 marks

End Semester Examination:

Project work will be assessed by the course teacher and external examiner for 50 marks

Evaluation Components

Project - 40 marks

Viva-voce – 10 marks

STELLA MARIS COLLEGE (AUTONOMOUS) – CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

COMPUTER ARCHITECTURE

CODE: 15CS/PE/CA14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce Digital Logic Design
- To provide an understanding of Organisation and Architecture of a computer

Unit 1 (13 hrs.)

1.1 Digital Logic Circuits

Digital Computers, Logic Gates, Boolean Algebra, Map Simplification, Product of Sum Simplification, Don't Care Condition

1.2 Data Representation

Data Types, Complements, Fixed Point Representation, Floating point Representation, Other Binary Codes, Error Detection Codes

Unit 2 (12 hrs.)

2.1 Register Transfer and Micro Operations

Register Transfer Language, Register transfer, Bus and Memory Transfers, Arithmetic Logic Shift Unit

2.2 Basic Computer Organisation and Design

Instruction Codes, Computer Registers, Computer Instructions, Instruction Cycle- Memory Reference Instruction -Input and Output Interrupt - Design of Basic Computer

Unit 3 (13 hrs.)

3.1 Programming the Basic Computer

Machine Language, Assembly Language, Assembler, Program Loops

3.2 Micro Programmed Control

Control Memory, Address Sequencing, Design of Control Unit

3.3 Central Processing Unit

General Register Organisation, Stack Organisation, Instruction Formats, Addressing Modes, Data Transfer and Manipulation

Unit 4 (15 hrs.)

4.1 Pipeline and Vector Processing

Parallel processing -Pipelining - Arithmetic Pipeline, Instruction Pipeline, RISC Pipeline-Vector Processing -Array Processors

4.2 Computer Arithmetic

Addition and Subtraction, Multiplication Algorithms, Division Algorithms, Floating Point Arithmetic Operations

Unit 5

(12 hrs.)

5.1 Input-Output Organisation

Input–Output Interface, Asynchronous Data Transfer, Modes of Transfer, Direct Memory Access

5.2 Memory Organisation

Memory Hierarchy, Main Memory, Auxiliary Memory, Associative Memory, Cache Memory, Virtual Memory

TEXT BOOK

Mano, Morris. *Computer System Architecture*, Prentice Hall of India, 3rd ed.

BOOKS FOR REFERENCE

Jr, Charles H. Roth. *Fundamentals of Logic Design*, 4th ed. Mumbai : Jaico Publishing House, 1992.

Mano, Morris. *Digital Design*, Prentice Hall of India, 1997.

Patterson, David A. and John L. Hennessy. *Computer Organisation and Design: The Hardware/Software interface*. 2nd ed. Morgan Kaufmann, 2002.

Stallings, William. *Computer Organisation and Architecture—Designing for Performance*. 6th ed. Pearson Education, 2003.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A - $5 \times 2 = 10$ marks (Answer all the questions)

Section B - $4 \times 5 = 20$ marks (4 out of 5)

Section C - $2 \times 10 = 20$ marks (2 out of 3)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

STELLA MARIS COLLEGE (AUTONOMOUS) – CHENNAI – 600 086

MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 - 16)

BIG DATA ANALYTICS USING R

CODE: 15CS/PE/BD14

CREDITS: 4

L T P: 3 0 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the significance of big data analytics as the next wave for businesses looking for competitive advantage
- To explore R for working with big data

Unit 1

(15 hrs.)

1.1 Introduction

Big Data- Significance, Evolving Data, Complexity of Data and Data Analysis, Big Data and the Business Case- Realising Value- Big Data Options -Hadoop
Big Data Characteristics - Volume, Veracity, Velocity, Variety

1.2 Big Data Analytics Applications

Social Media Command Center, Product Knowledge Hub Infrastructure and Operations Studies, Product Selection, Design and Engineering- Location-Based Services-Online Advertising

1.3 Basics of R

Need for R -Data set- Creation, Understanding, Data structures, Data input - Graphs-Example, Graphical Parameters, Adding text, Customise Axes and Legends, Combining Graphs

Unit 2

(15hrs.)

2.1 Basic Data Management

Working Example -Creating a new Variable - Recording Variables - Renaming Variable - Missing Values - Date Value - Type Conversion - Sorting Data - Merging Dataset, Subsetting Datasets

2.2 Advanced Data Management

Challenge - Numerical and Character Functions -Solution for Data Management Challenge - Control Flow - User Written Functions - Aggregation and Restructuring

Unit 3

(14 hrs.)

3.1 Basic Methods in R

Basic graphs - BarPlots - Pie Charts – Histograms - Kernel Density Plots - Box Plots - Dot Plots - Basic Statistics-Descriptive, Frequency and Contingency Tables

Unit 4 (14hrs.)

4.1 Learning Big Data Analytics with R

Data analytics Project Lifecycle -Identifying the Problem, Designing Data Requirement, Preprocessing Data, Performing Analytics over Data, VisualisingData, Understanding Data Analytics Problems- Exploring Web pages Categorisation, Identifying the Problem, Designing Data Requirement, Preprocessing Data, Demonstration on performing Analytics over Data using Hadoop, VisualisingData

4.2 Understanding Big Data with Machine Learning

Introduction to Machine Learning - Supervised Machine Learning algorithms- Linear Regression with R, Logistic Regression with R - Unsupervised Machine Learning algorithm – Clustering – Clustering with R

4.3 Importing and Exporting Data From Various DBs

Importing Data into R - Exporting Data from R - Understanding MySQL -Understanding Excel

4.4 Classification and Clustering

Regression – Linear Regression, Logistic Regression, Clustering – k-Means Clustering

Unit 5 (7hrs.)

5.1 Time Series Analysis

Using R for Time Series Analysis- Time Series Analysis, Reading Time Series Data, Plotting Time Series, Decomposing Time Series, Forecast using Exponential Smoothing, ARIMA models

5.2 Social Network Analytics

Social Network Definitions - Social Network Metrics - Social Network Learning - Relational Neighbor Classifier - Probabilistic Relational Neighbor Classifier - Relational Logistic Regression - Collective Interferencing -Egonets

TEXT BOOKS

Ohlhorst, Frank J. *Big Data Analytics: Turning Big Data into Big Money*.Wiley2012. (Unit 1.1)

Dr.ArvindSathi.*Big Data Analytics: Disruptive Technologies for Changing the Game*.IBM Corporation.2013. (Unit 1.2)

Kabacoff, Robert I. *R in action*. Manning, 2011. (Unit1.3, 2, 3)

Prajapati, Vignesh. *Big Data Analytics with R and Hadoop*.Packt,2013. (Unit 4.1, 4.2)

Zhao, Yangchang. *R and Data Mining: Example and Case studies*. Elsevier, December, 2012. (Unit4.3)

Baesens, Bart. *Analytics in Big Data World*.Wiley,2014(Unit 5.2)

BOOKS FOR REFERENCE

James, Gareth, Daniela Witten, Trevor Hastie, Robert Tibshirani. *An Introduction to Statistical Learning with Applications in R*. Springer, 2013.

Loshin, David. *Big Data Analytics From Strategic Planning to Enterprise Integration with Tools, Techniques, NoSQL, and Graph*. Elsevier, 2013.

WEB RESOURCES

<http://a-little-book-of-r-for-time-series.readthedocs.org/en/latest/index.html> - Unit 5

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks

Practical – 25 marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case Study

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Section A- 5 x 2 = 10 marks (Answer all the questions)

(1 question to be set from each unit)

Section B - 4 x 5 = 20 marks (4 out of 6)

Section C - 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS) – CHENNAI – 600 086
Post Graduate Elective Course offered by the Department of Computer Science
to M.A/M.Sc. / M.Com. DEGREE

SYLLABUS

(Effective from the academic year 2015 - 16)

MULTIMEDIA

CODE: 15CS/PE/MM24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To acquire skills in Multimedia- Photoshop, Flash and Dreamweaver
- To enable students to develop a static web site

Unit 1 (6 hrs.)

1.1 Introduction

Overview - Definition and Applications of Multimedia - Designing a Multimedia Project - Multimedia Team - Hyper media -Story Board -MultimediaHardware – Hardware Peripherals -Multimedia Software -Authoring Tools -File Formats - Production Standards-Data Compression

Unit 2 (15 hrs.)

2.1 Introduction to Adobe Photoshop

Features of Adobe Photoshop -Workspace basics -Menu bar, Panels, Key shortcuts, Palettes, Customizing Color Pickers and Swatches, Choosing Colors, Blending Modes, Image and Color basics -Creating, Opening and Importing images, Convert an image to Bitmap Mode

2.2 Tools

Toolbox -Selection Tools, Alteration Tools, Drawing and Selection Tools, Assisting Tools, Additional Tools -Color Boxes and Modes -Basic Image Editing Tools – Crop, Resize, Correct, Sharpen/Blur and Saving the work

Unit 3 (12hrs.)

3.1 Introduction to Adobe Flash

Features, Flash Work Environment - Stage, Menu Bar, Drawing Tools and their Modifiers - Basic Drawing Techniques – Timeline -The Power of Layers - Learning about Symbols – Libraries - Object types -Image types - Graphics formats Colors and Resolution

3.2 Animation Techniques

Animation basics -Tweening and its types, Shape Hint, Frame-by-Frame Animation, Text Animations, Creating Guide Path, Banners, Layer Masking, Onion Skinning, Spot Light Effects, Buttons, Linking Images, Slide Shows, Adding Sound to Movies - Working with scenes - Publishing Movies

Unit 4 (10 hrs.)

4.1 Introduction to Adobe Dreamweaver

Features of Dreamweaver -Customizing Your Workspace - HTML Basics -Text, Lists and Tables -Working with Images-Inserting an image-Working with the Insert Panel-Copying and Pasting Images from Photoshop-Working with Navigation – Creating Internal Hyperlinks-Creating an Image-based Link-Creating an External Link-Working with Forms- Form Elements

Unit 5 (9 hrs.)

5.1 CSS

Introduction to CSS - HTML vs. CSS formatting-CSS Box model -Formatting text-Formatting objects, Multiples, Classes, and IDs-Working with Cascading Style Sheets-Working with Type-Using Images for Graphical Effects-Creating new CSSRules -Creating an Interactive Menu-Modifying Hyperlink Behavior-Moving Rules to an External Style Sheet-Creating Style Sheets for other Media

5.2 Mini Project

Create a website using Dreamweaver, Photoshop and Flash

BOOKS FOR REFERENCE

AGI Creative Team.*Adobe Flash Professional CS6 Digital classroom.*1sted, Wiley. 2012.

Dayley, Brad and DaNae Dayley.*Adobe Photoshop CS6 Bible.*1sted, Wiley, 2012.

Adobe Creative Team The official training workbook.*Adobe Dreamweaver CS6 classroom in a book.*1sted Adobe Systems Press, 2012.

WEB RESOURCES

<http://it-ebooks.info/book/2298/>

http://www.adobe.com/aboutadobe/pressroom/pressmaterials/pdfs/DW_CS6_WN_20120314.pdf

<http://it-ebooks.info/book/2162/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50 Duration: 90 mins.

Theory - 25 Marks

Practical- 25 Marks

Section A - 3 x 5 = 15 marks (3 out of 4)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Mini Project

End Semester Examination:

Practical: 100 marks

Duration: 3 hours

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 86
MASTER OF SCIENCE (INFORMATION TECHNOLOGY)

SYLLABUS

(Effective from the academic year 2015 – 2016)

E-COMMERCE AND CONTENT MANAGEMENT SYSTEM

CODE: 15CS/PE/EC34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand overall framework of E-Commerce and the role of internet in modern business
- To learn the strategies for developing electronic commerce Web sites, various payment schemes and security issues in E-Commerce
- To provide hands-on experience in the implementation of E-Commerce using an open source software

Unit 1

(10 hrs.)

1.1 Introduction

E-Commerce - History, Overview of the Framework - E-Business Models - Network – Infrastructure - Role of Internet - E-commerce and World Wide Web

1.2 Planning for Electronic Commerce

Identifying Benefits and Estimating Costs of Electronic Commerce Initiatives - Strategies for Developing Electronic Commerce Web Sites - Managing Electronic Commerce Implementations

Unit 2

(10 hrs.)

2.1 Introduction to Drupal

Discovering Drupal - The Drupal Architecture - Programming Languages used - Fundamental Architecture concepts

2.2 Getting Used to the Drupal Environment

The Front End - Drupal's Public Interface - Menu structure, Main menu, Management menu, Navigation menu, User menu, Modules, Blocks and Regions - The Back End - Drupal's Admin Interface - The Management menu, The Home option, The Dashboard option, The Content option, The Structure option, The Appearance option, The People option, The Modules option, The Configuration option, The Reports option, Working, Customising the Admin Interface

Unit 3 (10 hrs.)

3.1 Drupal's Site Building Tools

Using Drupal's Site Building Tools - The Default Drupal Themes -Working with the Default Modules -Block, Dashboard, Image, List, Menu, Node Working with Blocks, Working with the Menus Manager -Creating and Managing Menus, Creating and Managing Menu Items

3.2 Creating New Content

Drupal Content Types and Fields - Controlling How Content Is Created, Configuring Standard Content-Item Defaults, Understanding Field Settings and Field Instance Settings, Creating New Content ,Managing Existing Content, Formatting Content and Media - Working with Images - Using WYSIWYG Editors - Managing the Front Page of Your Site

Unit 4 (12 hrs.)

4.1 Implementing eCommerce with Ubercart

Implementing eCommerce with Ubercart - Understanding Ubercart - Obtaining and Installing Ubercart - Configuring Ubercart - Managing Cart settings, Checkout Settings, Order settings, Price Handler settings, Product settings, Store settings - Store Administration - Enhancing Ubercart

Unit 5 (10 hrs.)

5.1 Electronic Payment Systems

Digital Token based EPS – Smart cards – Credit cards – Risks – Designing EPS

5.2 Electronic Commerce Security

Online Security Issues Overview - Security for Client Computers – Communication Channel Security – Security for Server Computers

TEXT BOOKS

Kalakota,Ravi and Andrew B Whinston.*Frontiers ofE-COMMERCE*.1st ed.Pearson. 2009.

Schneider ,Gary P.*Electronic commerce*. USA: Thomson learning & James T Peny Cambridge, 2001.

Shreves, RicandBrice *Dunwoodie.Drupal 7 Bible*.1sted, John Wiley, 2011.

REFERENCE BOOKS

Greenstein,,Manlyn and Miklos. *Electronic commerce*.2nded, McGraw-Hill, 2002.

Laudon, Kenneth C; Traver, Carol Guercio*E-Commerce: Business,Technology, Society*.10thed, Prentice Hall,2013

Lee,EfrainTurvanJ,Davidkug and chung. *Electronic Commerce*. Pearson Education Asia, 2001.

Tomlinson ,Todd . *Beginning Drupal*.Apress, 2010.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Theory – 25 marks Practical – 25 marks

Theory Pattern

Section A - 3 x 5 = 15 marks (3 out of 5)

Section B - 1 x 10 = 10 marks (1 out of 2)

Third Component:

Demonstration for a given exercise

Mini Project

End Semester Examination:

Total Marks: 100 marks

Duration: 3 hours

Theory – 50 marks Duration – 1 ½ hrs.

Practical – 50 marks Duration – 1 ½ hrs.

Theory Pattern

Section A: 5 x 2 = 10 marks (Answer all the questions)

Section B: 4 x 5 = 20 marks (4 out of 6)

Section C: 2 x 10 = 20 marks (2 out of 3)

(Questions for forty marks towards Section B and Section C should be set such that equal weightage is given to all units)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Post Graduate Elective Course offered by the Department of Computer Science
to M.A. / M.Sc. / M.Com. DEGREE**

SYLLABUS

(Effective from the Academic Year 2015-2016)

ADVANCED OFFICE TOOLS

CODE: 15CS/PE/AO24

CREDITS:4

LTP:4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To familiarize students with various features of Word, Excel, PowerPoint and FrontPage

Unit 1 (10 hrs.)

1.1 Word Processing Basics

Working with Documents and Template - Managing Compatibility –Navigation – Printing -Page Layouts –Styles –Formatting -Using Clipboard –Find –Replace -Go to –Watermarks -Custom Margins -Page Orientation -Language Tools -Autocorrect and Auto format –Inserting Objects –Pictures, Shapes, Hyperlinks,Cross References, Word arts, Text boxes, Page Numbers,Tables, Charts and Smart art, Setting up the document with Sections, Headers, Footers and Columns

Unit 2 (10 hrs.)

2.1 Advanced Word Processing

Working with other Page features -Themes and Master Documents -Enhancing Documents with Reference features -Data Documents and Mail Merge -Table of Contents - Citations and Bibliography -Tracking and Comments -Converting to Various File Formats

Unit 3 (12hrs.)

3.1 Spreadsheet Basics

Spreadsheet - Creating, Modifying Workbooks, Worksheets, Freezing and Locking Panes, Formatting cells, Arranging Multiple Workbook Windows, Changing workbook appearance, Working with Data and Excel Tables, Performing calculations on Data using Formula

3.2 Advanced Spreadsheet Functionalities

Working with Solver –Scenario –Sorting -Conditional Formatting -Focusing on specific Data by using Filters -Reordering and Summarising Data -Data Analytics using Pivot Table -Combining Data from Multiple Sources - Creating Charts and Graphics –Printing -Usage of VLookup - Create and Manage Dropdown List – Password Protect Workbook and Worksheets

Unit 4**(10hrs.)****4.1 Presentation Tool**

Benefits - Different Views - Working with Slides - Inserting contents from External Sources - Copying Slides from other Presentations - Inserting new slides from an Outline - Opening word document as a new presentation - Importing text from Web Pages - Images and Files - Working with Layout - Themes and Masters - Formatting - Correcting and improving text - Clipart - Smart art - Sizing and cropping photos - Adjusting and correcting photos - Compressing Images - Creating a photo album Layout - Linked and Embedded objects - Adding sound effects - Music and Sound Tracks - Creating Animation Effects and Transitions - Creating support materials - Security

Unit 5**(10 hrs.)****5.1 Designing a Static Web Page**

Introduction to MS Frontpage - Planning and Organising Web site - Creating Web sites automatically - Editing basic Web page content - Using Tables and Hyperlinks in Web pages - Publishing and Maintaining Web sites - Structuring individual Web pages - Formatting - Enhancing Web pages with Animation - Creating and using Forms

BOOKS FOR REFERENCE

Bucki, Lisa A. and John Walkenbach. *Office 2013 Bible: The Comprehensive Tutorial*. 4th ed Wiley, 2013.

Cox, Joyce and Joan Lambert. *Microsoft PowerPoint 2013 Step by Step*. 1st ed, Microsoft Press 2013.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 50 mins.

Practical: 50 marks

Component:

Demonstration for a given exercise

Mini Project

End Semester Examination:

Practical – 100 marks Duration – 3hrs.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 86
POSTGRADUATE INDEPENDENT ELECTIVE COURSE OFFERED BY THE
DEPARTMENT OF COMPUTER SCIENCE
SYLLABUS

(Effective from the academic year 2015 – 2016)

PERVASIVE COMPUTING

CODE: 15CS/PI/PC24

CREDITS : 4

OBJECTIVES OF THE COURSE

- To understand the characteristics and principles of pervasive computing and the solutions that are in use
- To comprehend the role of wireless protocols in shaping the future Internet
- To give an introduction to the enabling technologies of pervasive computing

Unit 1

1.1 Introduction

Introduction – Past, Present, Future - The Vine and Fig Tree Dream - Pervasive Computing – The Pervasive Computing Market – m-business – Conclusions and Challenges

1.2 Application Examples

Examples - Retail, Airline Check-in and Booking, Sales force automation, Healthcare, Tracking, Car information systems, Email access via WAP and Voice

Unit 2

2.1 Device Technology

Hardware - Human Machine Interfaces – Biometrics - Operating Systems

2.2 Device Connectivity

Protocols – Security - Device Management

Unit 3

3.1 Web Application Concepts

WWW - History, Architecture, Protocols – Transcoding - Client authentication via Internet

3.2 WAP

Introduction - Components of WAP architecture - WAP Infrastructure - WAP Security Issues - Wireless Markup Language - WAP Push

Unit 4

4.1 Voice Technology

Basics of Speech recognition - Voice Standards - Speech Applications - Speech and Pervasive computing - Security

4.2 Personal Digital Assistants

History - Device Categories - Personal Digital Assistant Operating System - Device Characteristics, Software Components, Standards - Mobile Applications

Unit 5

5.1 Architectures

Pervasive Web application Architecture, Example Applications, Access from PCs

TEXT BOOKS

Burkhardt, Jochen, Horst Henn, Stefan Hepper, Thomas Schaec and Klaus Rindtorff. *Pervasive Computing Technology and Architecture of Mobile Internet Applications*. 1st ed. Addison Wesley, 2002.

BOOKS FOR REFERENCE

Hansmann Uwe, Lothar Merk, Martin S. Nicklous, Thomas Stober. *Pervasive Computing: The Mobile World*. 2nd ed. Springer, 2003.

WEB RESOURCES

http://en.wikipedia.org/wiki/Ubiquitous_computing

http://www.cs.umanitoba.ca/~comp7840/notes/3_IntroPervasive_6up.pdf

http://www.academia.edu/2884907/An_overview_of_pervasive_computing_systems

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

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SYLLABUS

(Effective from the academic year 2015-2016)

GREEN COMPUTING

CODE: 15CS/PI/GC24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To enable the understanding of the Principles of green computing
- To realise the importance of sustainable software development solutions
- To apply green computing to all sectors of Information Technology

Unit 1

1.1 Green IT an Overview

Introduction - Environmental Concerns and Sustainable Development - Environmental Impacts of IT - Green IT - Holistic Approach to Greening IT, Greening IT, Enterprise Green IT Strategy, Green IT Burden or Opportunity, Life Cycle of a Device or Hardware Reuse, Recycle and Dispose

Unit 2

2.1 Green Software and Sustainable Software Development

Energy- Saving Software Techniques- Computational Efficiency, Data Efficiency, Context Awareness, Idle Efficiency, Evaluating and Measuring Software Impact to Platform Power, Current practices, Sustainable Software - Software Sustainability Attributes, Software Sustainability Metrics, Sustainable Software Methodology

Unit 3

3.1 Green Data Centres and Data Storage

Data Centres and Associated Energy Challenges - Data Centre IT Infrastructure – Data Centre Facility Infrastructure - IT Infrastructure Management - Green Data Centre Metrics Centre Management Strategies - Storage Media Power Characteristics- Hard Disks, Magnetic Tapes, Solid-State Drives, Energy Management Techniques for Hard Disks- State Monitoring, Caching, Dynamic RPM, System- Level Energy Management

Unit 4

4.1 Green Networks and Communication

Introduction - Objectives of Green Network Protocols – Energy-Optimising Protocol Design, BitCosts Associated with Network Communication Protocol, Strategies to Reduce Carbon Emissions

Unit 5

5.1 Green Cloud Computing and Environmental Sustainability

Cloud Computing - Cloud Computing Energy usage Model - Features of Clouds Enabling Green Computing - Green Cloud Architecture

TEXT BOOK

Murugesan, San, and G. R. Gangadharan. *Harnessing Green IT: Principles and Practices*. USA: Wiley, 2012.

BOOKS FOR REFERENCE

Lamb, John. *The Greening of IT: How Companies Can Make A Difference For The Environment*. 1st ed. New Delhi: Pearson, 2009.

WEB RESOURCES

http://studyhelpline.net/hot_it_topics/green_computing/Default.aspx

PATTERN OF EVALUATION

End Semester Examination:

Total Marks: 100

Duration: 3 hours

- Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)
- Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)
- Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

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POSTGRADUATE INDEPENDENT ELECTIVE COURSE OFFERED BY THE
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SYLLABUS

(Effective from the academic year 2015-2016)

EMERGING TRENDS IN INFORMATION TECHNOLOGY

CODE: 15CS/PI/ET24

CREDITS: 4

OBJECTIVE OF THE COURSE

- To introduce students to the concepts and techniques of emerging trends in Information Technology

Unit 1

1.1 Introduction to Cloud Computing

Cloud Computing Overview - Applications - Intranets and the Cloud - First movers in Cloud, Benefits, Limitations, Security Concerns, Regulatory Issues

1.2 Cloud Computing Architecture

The Cloud Reference Model - Types of Clouds -Open challenges

1.3 Migrating to the Cloud

Cloud Services for Individuals - Cloud Services Aimed at the Mid-Market - Migration - Applications needed - Sending Your Existing Data to the Cloud

Unit 2

2.1 Introduction to Pervasive Computing

Pervasive Computing and Its Significance

2.2 Mobile Agent Technology

Introduction - Mobile Agent Security -Mobile Agent Platforms -Applications

2.3 Intelligent Environments

Definition and Components – Taxonomy –Trends - Limitations and Challenges - Applications and Case Studies -Smart Everyday Objects - Smart Home - Smart Office - Smart Room - Smart Car- Smart Laboratory - Smart Library

Unit 3

3.1 Robotics and AI

Overview- Being an Intelligent machine,Uses of Robots,A Brief History of Robotics, Industrial manipulators, Space robotics and the AI approach,The Challenge of the Robot - Perception vs. Reality and the Fragility of control, The Robot Simulator, The Robot – Control Inputs - Sensors, Control Outputs - Mobility – API – The goal – A Simple Model – The Control Loop, Estimating state, Go-to-goal Behavior,Avoid Obstacle Behavior, Hybrid Automata, Follow Wall Behavior, Final Control Design When Robots Fail

Unit 4

4.1 Big Data Analytics

Big Data - Overview, Significance, Stages in Data Systems - Big data vs. Regular Data - Advanced Analytics - Three Vs in Big Data - Big Data Analytics Applications - Social Media Command Center - Location-Based Services - Online Advertising - Understanding the Data Analytics Project Life Cycle - Identifying the Problem, Designing Data Requirement, Preprocessing data, Performing Analytics over Data, Visualising Data, Understanding Data Analytics Problems

Unit 5

5.1 Green Computing

Green IT Fundamentals - Business, IT and the Environment, Introduction, Information Technology and Environment, Green Enterprise Characteristics, Green Vision, Green Strategic Points, Green Value, Green IT Opportunity, Challenges of a Carbon Economy, Environmental Intelligence, Business Intelligence, Envisioning the Green Future, Green IT Strategies, Range of Impact

5.2 Green Assets

Buildings - Data Centers - Networks and Data Centers - Green Assets – Green IT Hardware, Green Data Centers

TEXT BOOKS

Buyya, Rajkumar, Christian Vecchiola and S. Thamarai Selvi. *Mastering Cloud Computing Foundations and Applications Programming*. 1st ed. USA: Elsevier, 2013. [Chapter 4].

Dr. Sathi, Arvind. *Big Data Analytics: Disruptive Technologies for Changing the Game*, MS Press, 2012. [Chapter 3]

Minelli, Michael, Michele Chambers and Ambiga Dhiraj. *Big Data Big Analytics*, New Jersey: John Wiley, 2013. [Chapter 1].

Murphy, Robin R. *Introduction to AI Robotics*. USA: MIT, 2004 [Chapter 1]

Obaidat, Mohammad S., Mieso Denko and Isaac Woungang. *Pervasive computing and Networking*. USA: John Wiley, 2011 [Chapter 1, 2 & 13]

Prajapati, Vignesh. *Big Data Analytics with R and Hadoop*. UK: Packet Publishing Ltd, 2013. [Chapter 5].

Unhelkar, Bhuvan. *Green IT Strategies and Applications: Using Environmental Intelligence*. FL: CRC Press, 2011. [Chapter 1, 2 & 4]

Velte, Anthony T., Toby J. Velte and Robert Elsenpeter. *Cloud Computing, A Practical Approach*. 1st ed. New Delhi: McGraw-Hill, 2009. [Chapter 1, 13]

WEB RESOURCES

http://lass.cs.umass.edu/~shenoy/courses/spring13/lectures/notes/677_lec21.pdf

<http://www.toptal.com/robotics/programming-a-robot-an-introductory-tutorial>

PATTERN OF EVALUATION

End Semester Examination:

Total Marks:100

Duration: 3 hours

Section A - $10 \times 2 = 20$ marks (Answer all the questions)
(2 questions to be set from each unit)

Section B - $6 \times 5 = 30$ marks (6 out of 8)
(Atleast 1 question from each unit)

Section C - $5 \times 10 = 50$ marks (5 out of 7)
(Atleast 1 question from each unit)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE: BRANCH III –ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

MICRO ECONOMIC ANALYSIS- I

CODE: 15EC/PC/MI14

CREDITS : 4

L T P :4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand, identify and analyse the issues related to resource allocation
- To furnish the essential tools and techniques which will be used in all areas of economic analysis

Unit 1

Introduction

(7 hrs.)

- 1.1 Marginal Analysis
- 1.2 Tools of economic analysis –Optimization with equality constraints

Unit 2

Demand

(16 hrs.)

- 2.1 Cardinal and Ordinal Approaches –Utility Maximization using calculus
- 2.2 Revision of demand theory
- 2.3 Revealed preference theory
- 2.4 Application of the consumer behaviour theories
- 2.5 Risk and uncertainty – expected utility hypothesis
- 2.6 Consumer surplus and elasticity measurements
- 2.7 Recent development in Demand Theory –Econometric models
- 2.8 Application: Determination of demand curve using Indian Agriculture or Industrial Data

Unit 3

Production

(16 hrs.)

- 3.1 Production Functions – Properties of Linear homogenous production function
- 3.2 Cobb –Douglas production function
- 3.3 C.E.S Production Function
- 3.4 Variable proportions and Returns to scale
- 3.5 Elasticity of factor substitution and technical progress
- 3.6 Producer's equilibrium and cost minimization
- 3.7 Equilibrium of the multi-product firm
- 3.8 Application: Fitting production function using Indian Industrial/Agricultural data base

Unit 4		
Cost		(12 hrs.)
4.1	Traditional theory of Cost	
4.2	Modern theory of cost	
4.3	Cost Curves – The relation between production and cost	
4.4	Application Calculation of cost using Industrial data	

Unit 5		
Theory of Firm		(14 hrs.)
5.1	Price – output decisions under perfect competition	
5.2	Monopoly	
5.3	Price Discrimination	
5.4	Control of monopoly	
5.5	Monopolistic competition and excess capacity	
5.6	Application: Study of the current market scenario using both primary and secondary data (Market survey and presentation)	

BOOKS FOR STUDY

Koutosoyiannis. A. *Modern Micro Economics*. London: Macmillan Education 1979.

Varian. Hal.R.*IntermediateMicroeconomic- A Modern Approach*. New York: W.W. Norton,2010.

BOOKS FOR REFERENCE

Bardhan, Pranab&Christopher. Udry. *Development Micro Economics*. New York: OUP,1999.

Basu, Kaushik and Ravi. Kanbur. *Arguments for a Better World*. (Ed.). New York: OUP, 2009.

Baumol. W.J. *Economic Theory and Operations Analysis*. New Delhi: Prentice Hall,1982.

Breit, W&Harold.Hochman. M. *Readings in Micro Economics*.USA: Holt, Rinehart & Winston,1971.

Pindyck, Robert. S & Daniel. L. Rubinfeld.*Micro Economics*. New Delhi: Prentice Hall, 2007.

Szenberg, Michael &Ramrattan.Lall. *New Frontiers in Economics*. New York: Cambridge University Press, 2004.

JOURNALS

The American Economic Review
Journal of Economic Literature

WEB RESOURCES

<https://books.google.co.in/books?id=lgeUAgAAQBAJ&pg=PR1&dq=collected+readings+in+micro+economics&hl=en&sa=X&ei=unomVb65CMmOuAT9noGICg&ved=0CCMQ6AEwAQ#v=onepage&q=collected%20readings%20in%20micro%20economics&f=false>

<https://books.google.co.in/books?id=-7oz7hiUrGUC&pg=PT234&dq=collected+readings+in+micro+economics&hl=en&sa=X&ei=unomVb65CMmOuAT9noGICg&ved=0CEAQ6AEwBg#v=onepage&q=collected%20readings%20in%20micro%20economics&f=false>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Group discussion and presentation

Assignments

Case studies and presentation

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A – 5x 8 = 40 marks (Answer any 5 out of 7 questions in 300 words each)

Section B – 3x 20 = 60 marks (Answer any 3 out of 5 questions in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A. DEGREE: BRANCH III–ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

MONETARY ECONOMICS

CODE: 15EC/PC/MO14

CREDITS: 4

L T P:4 1 0

TOTAL TEACHING HOURS:65

OBJECTIVE OF THE COURSE

- To understand the role of money and to give a comprehensive picture of the theoretical framework
- To establish the integration of theory and practice in the context of an economy- with special reference to India

Unit 1

Demand for Money (12 hrs.)

- 1.1 Classical –Role of Money and Transaction Approach
- 1.2 Keynesian- Monetary Transmission Mechanism and Keynes Liquidity Preference Theory
- 1.3 Post Keynesian theories –Baumol, Tobin and Friedman
- 1.4 The Expected Utility Hypothesis –Neumann –Morgenstern Model (NM model)

Unit 2

Money Supply and Central Banking (14 hrs.)

- 2.1 The Supply of Monetary Base by the Central Bank – Demand for Currency by Public
- 2.2 Mechanical Theories of Money Supply –Money Supply Identities (Deriving Monetary Base)
- 2.3 The Behavioural Theory of Money Supply
- 2.4 The General Money Supply Function and its Empirical Estimates –interest Elasticity of Money Supply

Unit 3

Monetary and Portfolio Approach to BOP and Exchange Rate (16 hrs.)

- 3.1 A Nation's Monetary Base and Money Stock – Relationship between Monetary Base and Money Stock
- 3.2 Managed Exchange Rates: Foreign Exchange Interventions –Types (Intervention Transactions, Financing Interventions, Learning with or Against wind, Foreign Exchange Intervention and Money Stock, Sterilization of Intervention)
- 3.3 Monetary Approach to BOP and Exchange Rate Determination - Cambridge Approach to Money Demand, Monetary Approach and Fixed and Flexible Exchange Rate Arrangement
- 3.4 Applying the Monetary Approach -2 Country Model
- 3.5 Portfolio Approach of Exchange Rate Determination –Household Allocation of Wealth, Change in Domestic Money Stock of Change in Foreign Interest Rates.

Unit 4
Reforms in Financial Markets in India (13 hrs.)

- 4.1 Banking Reforms:-Narshiman Committee Report
- 4.2 NBFI's Reform:-Narshiman Committee Report
- 4.3 Interest Rates:- Types (Determination, Structure and Reforms)
- 4.4 Impact of Financial Reforms

Unit 5
Monetary Policy (10 hrs.)

- 5.1 Objectives and Instruments
- 5.2 Targets –Interest Rate as a Target, Price Level, National Income and Full Employment
- 5.3 Lags in Implementation –Policy Issues (Rules Vs Discretion, Passive Vs Active)
- 5.4 Monetary Policy in India

BOOKS FOR STUDY

Dwayne.Wrightsmen.*An Introduction to Monetary Theory and Policy*.New York: The Free Press. Macmillan,1976.

Handa.Jagdish.*Monetary Economics*. New York: Routledge,2000.

Pierce, G.David and David. M. Shaw. *Monetary Economics Theories, Evidence and Policy*. Boston: The Butterworth, 1977.

Daniel, P. Joseph and David.Van.Hoose.*International Monetary and Financial Economics*. US:South western Thomson Learning Publisher, 2002.

BOOKS FOR REFERENCE

Arestis, Philip and Malcolm.Sawyer.*A Handbook of Alternative Monetary Economics*. UK: Edward Elgar Publishing, 2006.

Aschheim, Joseph and Ching.Yao.Hsieh.*Macro Economics Income and Monetary Theory*. Ohio: Charles E. Merrill,1969.

Bain, Keith and Peter. Howells.*Monetary Economics Policy and its Theoretical Basis*. New York: Palgrave Macmillian, 2003.

Friedman, M. Benjamin and Frank. H. Hahm.*Handbook of Monetary Economics, Volume I*. Amsterdam: Elsevier, 2000.

Gibson, E. William and George. G. Kaufma.*Monetary Economics: Readings on Current issues*. New Delhi: Tata McGraw Hill,1975.

Makinen. E. Gail.*Money the Price Level and Interest Rates: An Introduction to Monetary Theory*. New Delhi: Prentice Hall, 1978.

Rangarajan.C. *Monetary Policy, Financial Stability and other Essays*.New Delhi: Academic Foundation, 2009.

Reddy.Y.V.A *Review of Monetary and Financial Sector Reforms in India – A Central Banker’s Perspective*.New Delhi: UBSPD, 2000.

JOURNALS

Reserve Bank of India Bulletin, Annual Report, Mumbai: 2000 onwards.

Reserve Bank of India – *Report of the Working Group: Money Supply Analytics and Methodology of Compilation*, 1998.

WEB RESOURCES

www.rbi.org.in

www.mospi.nic.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5 x 8 = 40 marks (Answer any 5 out of 7 questions in 300 words each)

Section B – 3 x 20 = 60 marks (Answer any 3 out of 5 questions in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A DEGREE: BRANCH III – ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

GROWTH AND DEVELOPMENT ECONOMICS

CODE:15EC/PC/GD14

CREDITS: 4

L T P: 4 10

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To help trace the evolution of the growth of development models and grasp the entire gamut of the subject related to the current economic occurrences

Unit 1

Development and Growth (10 hrs.)

- 1.1 Historical overview of Development
- 1.2 Development Vs. Growth - How the other half lives – Development Studies
- 1.3 Poverty and Inequality – Nurske, Lorenz and Sen’s contribution
- 1.4 Theory of Disguised Unemployment – R. Nurkse

Unit 2

Classical and Neo Classical Growth Models (15 hrs.)

- 2.1 Robinson’s Model – the golden age, Karl Marx’s Model-Social relationships of production
- 2.2 Determinants of the rate of economic growth – James Meade
- 2.3 Capital Accumulation and Growth theories – N.Kaldor. Savings and capital output ratio – HarrodDomar. - The Simple Kaleckian Model – Investment Finances
- 2.4 Exogenous Model – Long run economic growth –technological progress- Solow – Swan Model. Uzawa’s Two Sector Growth Model

Unit 3

Balanced and Unbalanced Growth (12 hrs.)

- 3.1 Balanced Growth Theories : Balanced – RagnarNurkse and Paul RosenteinRodan
- 3.2 Unbalanced Growth Theories - H. W. Singer , Paul Streeten, A. O. Hirschman
- 3.3 Open economy – Grossman and Helpman Model

Unit 4**The Dual Economy Models****(15 hrs.)**

- 4.1 Unlimited supply of labour – Dual Sector Model – W. A. Lewis
- 4.2 Extension of Lewis's Model – The Surplus Labour Model: Fei and Ranis Model. D W Jorgenson's Model of Dual Economy
- 4.3 Dualistic Theory – Benjamin Higgins, Myrdal: Social Technological Geographic Financial Dualism
- 4.4 Rural Urban Migration A two Sector Analysis – J. R. Harris and M. P. Todaro

Unit 5**New Growth Theories****(13 hrs.)**

- 5.1 New model of Economic Growth – N. Kaldor and J AMirrlees
- 5.2 Endogenous Growth theory – Paul Romer, Arrow's Learning by Doing
- 5.3 Unified Growth thesis – OdedGalor

BOOKS FOR STUDY

Higgins. Benjamin. *Economic Development: Principles and Policies*. New York: W. W. Norton, 1993.

Michael. P. Todaro and S. C. Smith. *Economic Development*. New Delhi: Pearson, 2013.

Mishra, S. K. and V. K. Puri. *Economics of Development and Planning*. New Delhi: Himalaya, 2004.

Perkins, D.H. & D.L. Lindauer. *Economics of Development*. New York: W.W. Norton, 2006.

Taneja, M. I. and R.M. Myer. *Economics of Development and Planning*. New Delhi: Visha, 2005.

BOOKS FOR REFERENCE

Chakravarthy. S. *Development Planning the Indian Experience*. Calcutta: Clarendon Press, 1989.

Debraj. Ray, *Development Economics*. New Delhi: OUP, 2010.

Eckhard. Siggel. *Development Economics a Policy Analysis Approach*, England: Ashgate, 2005.

Hollis, Chenerry & T.N. Srinivasan. (Ed.) *Handbook of Development Economics Volume I & II*, Amestradam: Elsevier, 1998.

Meier. G. *Leading Issues in Economics Development*, Bombay, Calcutta: OUP, 1995.

Sen. A.K. *Development of Freedom*. New Delhi: Oxford University,1994.

Thirwall. A.P. *Growth & Development*. New York: Palgrave Macmillan,2003.

Yujiro.Hayami.*Development Economics from the Poverty to the Wealth of Nations*,
New York: OUP,1997.

JOURNALS

Indian Growth and Development Review

Indian Journal of Gender Studies

Journal of Human Growth and Development

Quarterly Journal of Economic Growth and Development Research

WEB RESOURCES

<http://www.bris.ac.uk/Depts/Economics/Growth/journals.htm>

<https://books.google.co.in/books?id=vO4sx6HiFrAC&pg=PA355&dq=endogenous+growth+theory&hl=en&sa=X&ei=HXUmVdy4FIOCuwSN1oDICA&ved=0CCYQ6AEwAg#v=onepage&q=endogenous%20growth%20theory&f=false>

<https://books.google.co.in/books?id=jD3ASoSQJ-AC&printsec=frontcover&dq=endogenous+growth+theory&hl=en&sa=X&ei=HXUmVdy4FIOCuwSN1oDICA&ved=0CEEQ6AEwBw#v=onepage&q=endogenous%20growth%20theory&f=false>

REPORTS

Human Development Reports-UNDP publications 2000 onwards

Parikh.Kirit. *India Development Report (Ed.)*, Indira Gandhi Institute of Research and Development, New Delhi: OUP, 2004.

World Development Reports- World Bank Publications 2000 onwards.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (3 out of 5 questions to be answered in 300 words each)

Section B – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

END SEMESTER EXAMINATION:

Total Marks: 100

Duration: 3 hours.

Section A– 5 x 8 = 40 marks (5 out of 7 questions to be answered in 300 words each)

Section B– 3 x 20=60 marks (3 out of 5 questions to be answered in 1200 words each)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A DEGREE: BRANCH III-ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

RESEARCH METHODS AND ANALYSIS-I

CODE: 15EC/PC/RM14

CREDITS : 4

L T P :3 0 2

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarise the students with the dimensions and methods of research
- To help organise and conduct a good research in a scientific manner
- To present the entire gamut of research with respect to computer applications
- To help in presentation and analysis of data using EXCEL

Unit 1

Introduction

(20 hrs.)

- 1.1 Meaning, Objectives and Significance of Research
- 1.2 Meaning, Objectives and Significance of Social Research, Problems and Significance of Scientific Social Research
- 1.3 Types of Research

Unit 2

Research Process

(28 hrs.)

- 2.1 Research Problem– Meaning and how to State a Research Problem
- 2.2 Literature Review – Meaning and Purpose of a Literature Review, Sources – Kinds of Sources, Documenting Sources, How to Write a Literature Review
- 2.3 Specification of Hypothesis and Working Hypothesis
- 2.4 Research Design – Meaning and Types
- 2.5 Data Collection Techniques
- 2.6 Sampling Techniques
- 2.7 Data Analysis (PRACTICALS)
 - 2.7.1 Summary Statistics
 - 2.7.2 Correlation and Regression –Simple, Partial, Multiple, Non – Linear Relationships –Functional Form – Estimate of Elasticity's, Growth Rates etc, Regressing Using Dummy Variable Technique
 - 2.7.3 Simple Theoretical Distributions
 - 2.7.4 Comparing Two Means – 't' Test
 - 2.7.5 Comparing Several Means –ANOVA

Unit 3

Introduction to Logic

(6 hrs.)

- 3.1 Logic, Syllogism as a form of Reasoning, Rules of Syllogism, Fallacy
- 3.2 Deductive and Inductive Methods of Reasoning

Unit 4

Epistemology, Fact and Theory

(5 hrs.)

- 4.1 Defining Epistemology –Binary Cartesian Epistemology –A Critique

- 4.2 Theory and Fact, Theory -then - Research, Research-then –theory, Experience and theory
- 4.3 Quantitative, Qualitative, objectivity, Subjectivity - Value-neutrality, Vignettes

Unit 5

Research Report and Presentation

(6 hrs.)

- 5.1 Report Drafting
- 5.2 Types of Reports
- 5.3 Contents of a Research Report
- 5.4 Presentation of a Research Report

BOOKS FOR STUDY

Gupta.S.P.*Statistical Methods*.New Delhi: Sultan Chand,2013.

Kothari C.R. *Research Methodology*.New Delhi: Wiley Eastern, 2001.

BOOKS FOR REFERENCE

Cochran. W. G. *Sampling technique*. New York: John Wiley, 2002.

Earl. R. Babbie.*The Practice of Social Research*.Boston: Wadsworth Cengage Learning, 2013.

Goode, W.J. &P.K.Hatt.*Methods in Social Research*.New York:McGraw Hill, 1973.

Neuman, W.L. *Social Research Methods; Qualitative and Quantitative Approach*.New York: Pearson Education, 2011.

Wilkinson, T.S. & P.L. Bhandarkar.*Methodology and Techniques of Social Research*.New Delhi: Himalaya Publishing House, 2011.

JOURNALS

International Journal of Development Research

Journal of Quantitative Methods for economics and Business Administration

Journal of Quantitative Research Tools in Economics

WEB RESOURCES

https://books.google.co.in/books?id=Adec88_kpTMC&pg=PA65&dq=research+Design+in+Economics&hl=en&sa=X&ei=eoMmVbfmBMniuQSZk4FI&ved=0CCcQ6AEwAg#v=onepage&q=research%20Design%20in%20Economics&f=false

<https://books.google.co.in/books?id=fWtRbkXQO48C&pg=PA107&dq=SPSS+IN+ECONOMICS&hl=en&sa=X&ei=xIMmVY63M5LauQSR7oHoDQ&ved=0CCwQ6AEwAQ#v=onepage&q=SPSS%20IN%20ECONOMICS&f=false>

<https://books.google.co.in/books?id=pzZ4HqiVs14C&pg=PA19&dq=SPSS+IN+ECONOMICS&hl=en&sa=X&ei=xIMmVY63M5LauQSR7oHoDQ&ved=0CDcQ6AEwAw#v=onepage&q=SPSS%20IN%20ECONOMICS&f=false>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

THEORY (30 MARKS)

Section A – Answer any three questions; 3x 10 = 30 mark

PRACTICALS (20 MARKS)

Section B – Answer ALL questions; 4 x 10 = 40 marks

Third Component:

List of evaluation modes:

Seminars

Quiz

Problem Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

THEORY (60 MARKS) - Duration: 2 hours

Section A – Answer any 6 questions out of a total of 8 questions. 6 x 10 = 60 marks
(300 words each)

PRACTICALS (40 MARKS) - Duration: 1 hour

Section B – Answer any 4 questions out of a total of 6 questions. 4 x 10 = 40 marks

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A DEGREE: BRANCH III –ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

MICRO ECONOMIC ANALYSIS - II

CODE: 15EC/PC/MI24

CREDITS : 4

L T P :4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarize the students with the basic concepts and to equip them with the various tools for fuller understanding and in depth analysis of micro economic theory
- To make the students aware of the various applications of micro economic theory and equip them with the ability to identify and analyse the issues pertaining to resource allocation

Unit 1 **Theory of**
the Firm **(18hrs.)**

- 1.1 Non collusive oligopoly – Reaction Curves Models of Cournot, Bertrand, Edgeworth, Stackleberg
- 1.2 Chamberlin and Hotelling, Game theory
- 1.3 Collusive Oligopoly – Cartels, Price Leadership, basing point system
- 1.4 Average Cost pricing theory
- 1.5 Bain’s limit pricing theory
- 1.6 Recent development in limit pricing – Syloslabini, Bagawathi
- 1.7 Baumol’s sales maximization theory
- 1.8 Williamsons utility maximizing theory
- 1.9 Application: Applying the different market models to the current Indian market situation through marker survey

Unit 2 **(18 hrs.)**
Distribution

- 2.1 Marginal Productivity theory
- 2.2 Price employment decision in perfect and imperfect factor and product market for one variable and two variable factors
- 2.3 Product exhaustion theorem –Euler’s theorem
- 2.4 Relative factor share and elasticity of substitution
- 2.5 Wage fixation and trade union
- 2.6 Wage differentials
- 2.7 Application: Study of the Indian government’s intervention in the betterment of labour in India through wage legislations and policies

Unit 3 **(10 hrs.)**
General Equilibrium

- 3.1 Walras Model (2 x 2 x 2 model)
- 3.2 H x M x N Model
- 3.3 Application: An analysis of different sectors in the Indian economy

Unit 4
Welfare (11 hrs.)
4.1 Criteria for welfare measurement
4.2 Derivation of bliss point
4.3 Application – evaluating the different criteria against the welfare policy consideration in the Indian context

Unit 5
Market Failure (8 hrs.)
5.1 Markets with Asymmetric Information
5.2 Market failure and externalities
5.3 Application –analysis of the Indian Market

BOOKS FOR STUDY

Koutosoyiannis. A. *Modern Micro Economics*. London: Macmillan Education, 1979.

Varian. Hal.R. *Intermediate Microeconomic - A Modern Approach*. New York: W.W. Norton, 2010.

BOOKS FOR REFERENCE

Bardhan, Pranab & Christopher. Udry. *Development Micro Economics*. New York: OUP, 1999.

Basu, Kaushik and Ravi. Kanbur. *Arguments for a Better World*. (Ed.). New York: OUP, 2009.

Baumol. W. J. *Economic Theory and Operations Analysis*. New Delhi: Prentice Hall, 1982.

Breit, W & Harold. Hochman. M. *Readings in Micro Economics*. USA: Holt, Rinehart & Winston, 1971.

Pindyck, Robert. S & Daniel. L. Rubinfeld. *Micro Economics*. New Delhi: Prentice Hall, 2007.

Szenberg, Michael & Ramrattan. Lall. *New Frontiers in Economics*. New York: Cambridge University Press, 2004.

JOURNALS

American Economic Review

Journal of Economic Literature

WEB RESOURCES

<https://books.google.co.in/books?id=lgeUAgAAQBAJ&pg=PR1&dq=collected+readings+in+micro+economics&hl=en&sa=X&ei=unomVb65CMmOuAT9noGICg&ved=0CCMQ6AEwAQ#v=onepage&q=collected%20readings%20in%20micro%20economics&f=false>

<https://books.google.co.in/books?id=-7oz7hiUrGUC&pg=PT234&dq=collected+readings+in+micro+economics&hl=en&sa=X&ei=unomVb65CMmOuAT9noGICg&ved=0CEAQ6AEwBg#v=onepage&q=collected%20readings%20in%20micro%20economics&f=false>

<https://books.google.co.in/books?id=VlrrzyrY5tYC&pg=PR78&dq=asymmetric+market+failure+cars&hl=en&sa=X&ei=gY4mVYdrz6m5BKb1gNAD&ved=0CCIQ6AEwAQ#v=onepage&q=asymmetric%20market%20failure%20cars&f=false>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Group Discussion

Presentation

Assignments

Case Studies

Presentation

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5 x 8 = 40 marks (Answer any 5 out of 7 questions in 300 words each)

Section B – 3 x 20 = 60 marks (Answer any 3 out of 5 questions in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A DEGREE: BRANCH III – ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

INTERNATIONAL TRADE

CODE: 15EC/PC/IT24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the theoretical underpinnings of International Trade and to analyze the relevance of the received theories in the context of economic development.
- To develop the ability to critically analyze the problem and prospects in International Trade relationship
- To assess the working of the existing international arrangements and the reforms suggested for a better world economic order.

Unit 1

Neo Classical Trade Theory (15 hrs.)

- 1.1 Offer Curves and Terms of Trade
- 1.2 The Heckscher Ohlin Theory – A Critique: Factor Prices and Factor, Reversals Test, Leontief Paradox
- 1.3 Stolper – Samuelson Theorem – Magnification effect
- 1.4 Demand Reversals, Transportation costs, Imperfect competition.
- 1.5 Post Heckscher-Ohlin Theories – Imitation lag Hypothesis – Posner, The Product Cycle Theory – Vernon, overlapping Demand – Linder, Krugman Model

Unit 2

Economic Growth and Trade (11 hrs.)

- 2.1 Consumption and Production effects of growth on size of trade – Johnson.
- 2.2 Growth trade and welfare in large country cases - Immiserising Growth - Bhagwati's Analysis. Rybczynski's Theorem
- 2.3 Secular Terms of Trade in developing countries - Singer-Prebisch Arguments

Unit 3

Political Economy of Trade Policy (15 hrs.)

- 3.1 Instruments of trade Policy – Tariff and Non Tariff
- 3.2 Tariff and Non Tariff Analysis – Partial Equilibrium in Small and Large countries. General Equilibrium in Small and Large Countries

- 3.3 Free Trade Vs. Protection – Political arguments for free trade, National Welfare arguments against free trade. Trade policy in Developing Countries – Infant Industry Argument – Problems of a dual economy – Economic Dualism in India

Unit 4

Balance of Payments (12 hrs.)

- 4.1 Concepts structure
4.2 Equilibrium and Disequilibrium Price adjustment and BOP disequilibrium – The J curve – Marshall - Lerner condition – Income Absorption
4.3 Foreign Exchange Market – functions, Determination of Equilibrium of exchange rate. Forward markets – Adjustment of Foreign Exchange Markets
4.4 Foreign Exchange Policy

Unit 5

International Negotiations and trade Policy (12 hrs.)

- 5.1 A brief historical over view of International Trade Agreements – IMF – World Bank - ITO – GATT – UNCTAD – NIEO - EURO - (not to be tested)
5.2 Globalization, WTO – AoA, GATS, Sanitary and Phytosanitary measure – Critical Analysis.
5.3 Controversies in Trade policy – Brander – Spencer Analysis. Anti Globalization

BOOKS FOR STUDY

Appleyard. D.R. *International Economics*. New York: McGraw Hill, 1998.

Bo. Sodersten. *International Economics*. London: The Macmillan Press, 1980.

Carbaugh. R.J. *International Economics*. UK: South Western, 2008.

Gerald.M. Meier. *The International Environment of Business- Competition and Governance in the Global Economy*. London: OUP, 1998.

Kindlebergr. Charles. P. *International Economics*. New York: McGraw Hill, 2000.

Krugman, P. R. *International Economics – Theory and Policy*. Pearson. New Delhi, 2003.

Salvatore. D. *International Economics*. New York: John Wiley, 2002.

Winters.Allan. L. *International Economics*. New York: George Allen and Unwin, 1999.

BOOKS FOR REFERENCE

Bhagwati.Jagdish. (Ed). *Trade, Balance of Payments and Growth*. Holland: Holland,1998.

Bhagwati, Jagdishand T. N. Srinivasan.*Lectures on International Trade, 2nd Ed*. New Delhi: OUP, 2003.

Dasgupta.B. *Structural Adjustment, Global Trade and the New Political Economy of Development*.New Delhi: Vistaar,1999.

Chacholiades.Mitilades.*International Trade, Theory and Policy*. New York: McGraw Hill, 1973.

Feenstra, Robert.C, *International Trade: Theory and Evidence*. Princeton, USA: Princeton University Press, 2004.

Grimwade, Nigel, *International Trade*. London, UK: Routledge.,2001.

John S, Hodgson and Mark G Herander, *International Economic Relations*,. New York: Prentice Hall, Inc,1983.

Johnson, Harry G.*International Trade and Economic Growth*.New York: George Allen and Unwin, 1970.

Ray, P.W and Kundu K.B.*International Economics: Pure Theory- Trade Policy*.New Delhi: Mahabharat, 2001.

Singer.H. W.*Rich and Poor Countries*.New York: George Allen and Unwin, 1977.

Singh, S.K and Singh.R.S.*International Monetary System- Trends and Issues*. New Delhi: Indus,2009.

Sinha. R.K. (Ed).*New International Economic Order – Need, Implementation, Obstacles, Prospects*. New Delhi: Deep and Deep, 2010.

JOURNALS

Journal of Economic History

Journal of International Economics

Journal of Monetary Economics

WEB RESOURCES

<https://books.google.co.in/books?id=tV6tzmkghGUC&printsec=frontcover&dq=wto+agreement&hl=en&sa=X&ei=xYsmVfKqMo-8uAT8kICIDw&ved=0CCMQ6AEwAQ#v=onepage&q=wto%20agreement&f=false>

<http://economyincrisis.org/wto?gclid=Cj0KEQjwxpipBRCap8PR2Om7vq4BEiQA6V7OVUjgtZxtohQTpmcQAmHeZXDNIzoVFs6JTJyNNk0FMoEaAneq8P8HAQ>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 Marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 Marks (Answer any 1 out of 2 questions in 1200 words each)

Third Component:

List of evaluation modes:

Quiz

Open book tests

Assignment

Seminar Presentation

Viva Voce

END SEMESTER EXAMINATION

Total Marks: 100

Duration: 3 hours

Section A – 5 x 8 = 40 Marks (Answer any 5 out of 7 questions in 300 words each)

Section B – 3 x 20 = 60 Marks (Answer any 3 out of 5 questions in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A. DEGREE: BRANCH III –ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

GENDER ECONOMICS

CODE: 15EC/PC/GE24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To sensitize students on issues relating to gender
- To identify the marginalization of women in economic theory
- To enable them to study and analyze economic theories with the gender lens

Unit 1

Gender: An Introduction (12 hrs.)

- 1.1 Gender–Gender as a category of analysis –Julie A. Nelson’s analysis of gender
- 1.2 Patriarchy –Patriarchy and Gender
- 1.3 The need for Economics from a feminist perspective- Gender in Economics

Unit 2

A Critique of Methods, Concepts and Philosophies (14 hrs.)

- 2.1 Classical Economics – Positivism -A critique of Cartesian Binary
Epistemology within the subject of Economics
- 2.2 Neoclassical Economics – A Critique of Neo Classical Economics –
Michele Pujol
- 2.3 Post-Keynesian Economics –A comparison between Feminist
Epistemology and the post Keynesian methodology –Lee B.Levin
- 2.4 Marxist Economics –Marxist Feminism –Frederich Engels –Margaret
Benston –Maira Rosa Della Costa –Barbara Bergmann
- 2.5 An Empirical Challenge of Feminist Economics – The Use of Stand point
Epistemology – Sandra Harding. Use of Vignettes as a Qualitative tool

Unit 3

Gender, Work, and Family (13 hrs.)

- 3.1 Themes of the Family: A Critique from a Feminist point of view
- 3.2 Debates on household labour –Gary Becker –Division of Work within
Family, Discrimination Theory, NotburgaOtt –Division of Work, Asa
Rosen –Discrimination Model
- 3.3 Sexual Division of labour and labour market stereotypes – pink collar – glass
ceiling – glass cliff – glass escalator

Unit 4

Economic Development: A Gender Perspective (12 hrs.)

- 4.1 Women in Development (WID), Women and Development (WAD) and Gender and Development (GAD)
- 4.2 Women and the environment – Women, Environment and Development (WED)
- 4.3 Ecofeminism – concept and recent trends

Unit 5

Work, Poverty and Globalization (14 hrs.)

- 5.1 Poverty and Gender –Women workers in the organized and unorganized sectors –Informalization of work –Feminization of work -Feminization of poverty
- 5.2 Impact of Liberalization, Privatization and Globalization on women
- 5.3 Gender and policy implications
- 5.4 Women: Invisible workers and visible work –Statistical Purdah
- 5.5 Conceptualization of women’s work: A critique of data system
- 5.6 Official and International Agency –reports on Women’s Status in India

BOOKS FOR STUDY

Geske, Dijkstra and Janneke. Plantenga. *Gender and Economics*. London: Routledge, 1993.

Julie. A. Nelson. *Feminism, Objectivity and Economics*. London: Routledge, 1996.

Kuiper, Edith and Jolande. Sap. (Eds.) *Out of Margin: Feminist Perspectives on Economics*. London: Routledge, 1995.

Loutfi, M.F. (ed.), *Women, Gender and Work*. New Delhi: Rawat, 2002.

BOOKS FOR REFERENCE

Barker, Drucilla and Susan. Feiner. “Economics She Wrote” Ch. 1. in *Barker and Feiner Liberating Economics: Feminist Perspectives on Families, Work, and Globalization*. Ann Arbor: University of Michigan Press, 2004.

Bhasin Kamala, *Patriarchy*, New Delhi: Kali for Women, 2006.

Caroline. O.N. Moser. (1993). *Gender, Planning and Development: Theory, Practice and Training*, London: Routledge, 1993.

Custer. Peter. *Capital Accumulation and Women’s Labour in Asian Economics*. New Delhi: Vistar, 1997

John. Florence. (Ed.) *Gender Matters*. Chennai: Semmoodhai, 2013.

Krishnaraj, Maithreyi and Joy. P. Deshmukh. *Gender in Economics*, New Delhi: Ajantha, 1991.

Sanjari, Kumkum and Uma.Chakravarthi.*From Myths to Markets: Essays on Gender*. New Delhi: Manohar, 1999.

Uma, Narayan and Sandra. Harding. Eds. *Decentering the Center: Philosophy for a Multicultural, Postcolonial, and Feminist World*.Bloomington: Indiana University Press, 2000.

JOURNALS

British Journal of Management

Feminist Economics

Gender Studies

Review of Social Economy

Special Issue of Signs

REPORTS

Shram Shakti, Report on the Unorganized Sector, New Delhi, 1987

WEB RESOURCES

https://books.google.co.in/books?id=hUOGIDTtgroC&pg=PA222&lpg=PA222&dq=Over+view+of+gender+economics+philosophies&source=bl&ots=cigmY6OUVt&sig=bZus0DwAqLCEJeg2jJHGhrB3ozA&hl=en&sa=X&ei=Me_WVI7IKI2TuASxrIIY&ved=0CEQQ6AEwBg#v=onepage&q=Over%20view%20of%20gender%20economics%20philosophies&f=false

<http://www.tlrp.org/rcbn/capacity/Journal/issue3.pdf>

<http://socpro.oxfordjournals.org/content/39/3/253.abstract>

<http://www.inc.com/larry-kim/after-shattering-glass-ceiling-female-ceos-fall-off-the-glass-cliff.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 Marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 Marks (Answer any 1 out of 2 questions in 1200 words each)

Third Component:

Quiz

Open book tests

Assignment

Seminar - Presentation

Viva Voce

END SEMESTER EXAMINATION:

No End Semester Examination

Submission of a Term Paper with the paper related research study. Topic to be approved by the course teacher.

Total marks 100 (to be reduced to 50 marks)

Term paper - 50 marks

Presentation - 25 marks

Viva voce – 25 marks

Evaluation of the Term Paper Presentation and viva voce to be done by a panel of examiners consisting of the heads, and the course teacher.

Evaluation of the Term Paper to be done by the course teacher and an external examiner from the department

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A.DEGREE: BRANCH III-ECONOMICS

SYLLABUS

(Effective from the academic year 2015 -2016)

RESEARCH METHODS AND ANALYSIS-II

CODE: 15EC/PC/RM24

CREDITS : 4

L T P :3 0 2

TOTAL TEACHING HOURS:65

OBJECTIVE OF THE COURSE

- To analyse data appropriately and to communicate the results of the analysis clearly in the context of the problem along with hands-on implementation using SPSS software

Unit 1

Introduction (15 hrs.)

- 1.1 Role of Statistics in Scientific inquiry
- 1.2 Introduction to SPSS – Data input, building a data file
- 1.3 Summary Statistics – Descriptive statistics, frequency distribution
- 1.4 Exploring data using graphs

Unit 2

Random Variables & Probability Distribution (10 hrs.)

- 2.1 Defining Random variables –Discrete, Continuous
- 2.2 Probability Distribution of a Random Variable
- 2.3 Expected values of a random variable
- 2.4 Theoretical Distribution – Binomial, Poisson, Normal Distribution

Unit 3

Linear Correlation and Regression Analysis (20 hrs.)

- 3.1 Correlation – Meaning, Types and methods to estimate relationship between 2 or more quantitative variables, testing the significance of the co-efficient
- 3.2 Regression – objectives, Methods of Least Square, estimation of simple, partial and multiple regression co-efficient, assessing the significance of coefficients using ‘t’ test, standard error and Confidence interval approach, overall goodness of fit of the model – R^2 and ANOVA
- 3.3 Non- Linear Regression models – Double log, Semi-Log, Reciprocal, Polynomial regression models
- 3.4 Regression using dummy variable techniques

Unit 4

Statistical Inference (15 hrs.)

- 4.1 Formulation of a Statistical Hypothesis
- 4.2 Testing of Hypothesis – Procedure
- 4.3 Testing of significant differences in means –‘t’ Test, ANOVA, Standard Error

- 4.4 Testing for significant differences in variances- F test
- 4.5 Non parametric tests – Sign test, Run test, ‘U’ test, ‘H’ test, χ^2 distribution

Unit 5 (5 hrs.)

Time Series Analysis

- 5.1 Concepts and Components
- 5.2 Measurement of trend

BOOKS FOR STUDY

Nagar,A.L. and R.K. Das.*Basic Statistics*. New Delhi: OUP,1989.

Gupta, S.C. & V.K. Kapoor.*Fundamentals of Applied Statistics*. New Delhi: Sultan Chand, 2014.

Gupta, S.P.*Statistical Methods*. New Delhi: Sultan Chand,2014.

Viswanathan.P.K. *Business Statistics*. New Delhi: Pearson,2000.

BOOKS FOR REFERENCE

Monga.G.S. *Mathematics and Statistics for Economics*.New Delhi: Vikas,2000.

Padmalochan.Hazarika.*Essential Statistics for Economics and Commerce*. New Delhi: Akansha, 2006.

Salvatore. D. *Mathematics and Statistics, Schaum’s Series*.New York: Tata McGraw Hill, 2000.

Speigal.M.R. *Theory and Problems of Statistics*. London: McGraw Hill, 2000.

JOURNALS

International Journal of Development Research

Journal of Quantitative Methods for economics and Business Administration

Journal of Quantitative Research Tools in Economics

WEB RESOURCES

https://books.google.co.in/books?id=Adec88_kpTMC&pg=PA65&dq=research+Design+in+Economics&hl=en&sa=X&ei=eoMmVbfmBMniuQSZk4FI&ved=0CCcQ6AEwAg#v=onepage&q=research%20Design%20in%20Economics&f=false

<https://books.google.co.in/books?id=fWtRbkXQO48C&pg=PA107&dq=SPSS+IN+ECONOMICS&hl=en&sa=X&ei=xIMmVY63M5LauQSR7oHoDQ&ved=0CCwQ6AEwAQ#v=onepage&q=SPSS%20IN%20ECONOMICS&f=false>

<http://iosrjournals.org/iosr-jrme.html>

<http://iosrjournals.org/iosr-jef.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

THEORY (30 MARKS)

Section A – (Answer any 3 out of 5 questions in about 300 words each); $3 \times 10 = 30$

PRACTICALS (20 MARKS)

Section B – Answer ALL questions; $2 \times 10 = 20$

Third Component:

List of evaluation modes:

Quiz

Problem Assignments

Submission of a minor project

End Semester Examination

Total Marks: 100

Duration: 3 hours

THEORY (60 MARKS) 2 hours

Section A – Answer any 6 questions out of a total of 8 questions. $6 \times 10 = 60$ (300 words each)

PRACTICALS (40 MARKS) 1 hour

Section B – Answer any 4 questions out of a total of 6 questions. $4 \times 10 = 40$

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A DEGREE: BRANCH III - ECONOMICS
SYLLABUS
(Effective from the academic year 2015 -2016)

SOFT SKILLS

CODE: 15EC/PK/SS22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVE OF THE COURSE

- To empower and create opportunities for self -development
- To instil confidence and face challenges

Unit 1

Behavioural Traits (6 Hrs.)

- 1.1 Self Awareness
- 1.2 Communication Skills –Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and Mannerisms
- 1.5 Experiential Learning –Based on activities

Unit 2

Team Work (5 hrs.)

- 2.1. Interpersonal Skills
- 2.2. People Management
- 2.3. Creative Thinking
- 2.4. Critical Thinking
- 2.5. Experiential Learning – Based on activities

Unit 3

Time Management (5 hrs.)

- 3.1. Importance of time management
- 3.2. Planning and Prioritizing
- 3.3. Organizing skills
- 3.4. Action Plan
- 3.5. Experiential Learning – Based on activities

Unit 4

Conflict Resolution (5 hrs.)

- 4.1. Reasons for conflict
- 4.2. Consequences of conflict
- 4.3. Managing emotions
- 4.4. Methods of resolving conflicts
- 4.5. Experiential Learning – Based on activities

Unit 5

Career Mapping

(5 hrs.)

- 5.1. Goal Setting and Decision Making
- 5.2. Career Planning
- 5.3. Resume Writing
- 5.4. Handling Interviews
- 5.5. Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv. *You Can Win*. New Delhi: Macmillan India, 2002.

Mishra, Rajiv. K. *Personality Development: Transform Yourself*. New Delhi: Rupa 2004.

Newstorm, John. W. and Scannell, Edward. E. *Games Trainers Play: Experiential Learning*. New Delhi: Tata McGraw Hill, 1980.

PATTERN OF EVALUATION

Internal Assessment:

Quiz

Group Presentation

Assignment

NO END SEMESTER EXAMINATION

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A DEGREE: BRANCH III – ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

MACRO ECONOMICS-I

CODE: 15EC/PC/MA34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To give a comprehensive view of the basic models of the macro economy
- To discuss the micro foundations of macro economics
- To study the short run and long run functioning of the macro economy

Unit 1

Classical and Keynes (11 hrs.)

- 1.1 Classical Model
- 1.2 Keynes – Simple two sector model and Demand for Money
- 1.3 Classical Keynesian Synthesis (IS - LM model)
- 1.4 Policy Analysis in an IS-LM Model: Policy analysis in the Keynesian and Neo Classical Model, role and effectiveness of monetary and fiscal policy

Unit 2

Consumption, Investment and Savings (14 hrs.)

- 2.1 Absolute, Relative, Permanent, Life-Cycle Hypothesis, Intertemporal Choice – Empirical Evidence
- 2.2 Accelerator theory of Investment, Residential Theory, Inventory Theory – Empirical Evidence
- 2.3 Savings, Investment in the General Theory – Hawlrey’s approach, Robertson approach and Swedish Approach
- 2.4 Paradox of Thrift

Unit 3

Aggregate Supply (10 hrs.)

- 3.1 Long Run Supply Curve: The Vertical Aggregate Supply Curve
- 3.2 Short Run Supply Curve: The Horizontal Aggregate Supply Curve
- 3.3 Models of Aggregate Supply: The Sticky Price Model, The Sticky Wage Model and the Imperfect – Information Model

Unit 4

Expectations (15 hrs.)

- 4.1 Static, Adaptive and Rational Expectations
- 4.2 Expectation and the Labour market – Augmented Phillips Curve
- 4.3 Price Expectation and commodity market – the Lucas Supply Function
- 4.4 Financial Markets and Expectation

Unit 5

Inflation and Unemployment

(15 hrs.)

- 5.1 The Labour Market: Classical and Keynesian View
- 5.2 Inflation: Inflation and Interest Rate, Nominal Interest Rate and Demand for Money
- 5.3 The Natural Rate of Unemployment and the Phillips Curve

BOOKS FOR STUDY

Blanchard. Oliver. *Macroeconomics*. India: Pearson Education, 2011.

Heijdra. Ben. *The Foundation of Modern Macroeconomics*. London: OUP, 2009.

Levacic, Rosalin, and Alexander Rebmann, *An Introduction to Keynesian – Neoclassical Controversies*. UK: Macmillan, 1991.

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Romer. David. *Advanced Macroeconomics*. New York: McGraw Hill, 2010.

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Pindyck, Robert S and Rubinfeld. Daniel. L. *Micro Economics*. New Delhi: Prentice Hall, 2007.

Sheffin. Steven M. *Rational Expectations*. New York: Cambridge University Press, 1996.

Sikda. Soumen, *Principles of Macroeconomics*, New Delhi: OUP, 2014.

Stiglitz. J. E. and Carl. E. Walsh. *Principles of Macroeconomics*. New York: WW Norton & Company, 2002.

Szenberg, Michael and Ramrattan. Lall. *New Frontiers in Economics*. New York: Cambridge University Press, 2004.

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JOURNALS

Cambridge Journal of Economics

Journal of Political Economy

The B.E. Journal of Macro Economics

REPORTS

RBI Bulletins

WEB RESOURCES

www.rbi.org.in

www.mospi.nic.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A– 5 x 8 = 40 marks (Answer any 5 out of 7 questions in 300 words each)

Section B– 3 x 20=60 marks (Answer any 3 out of 5 questions in 1200 words each)

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH III –ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

PUBLIC ECONOMICS-I

CODE: 15EC/PC/PE34

CREDITS: 4

LTP: 410

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the nature of Public Household and the problems relating to the provisioning of social goods
- To study and understand the nuances of Public choice and the mechanisms of voting
- To understand the nature of taxation and Public expenditure

Unit 1

Introduction (10 hrs.)

- 1.1 Welfare Foundation – Pareto Optimality – Pareto Efficiency
- 1.2 Multiple Theory of Public Households. Allocation, Distribution and Stabilization

Unit 2

Theory of Public Goods (14 hrs.)

- 2.1 The concept of Public, Private, Mixed, Merit, Club goods –Reasons for governmental allocation intervention –Market Failure
- 2.2 The Theory of Social Goods –the General Model for Social goods –P.A. Samuelson. Social Goods allocation through the Budget
- 2.3 Externalities and its corrections
- 2.4 Theory of Optimal Distribution

Unit 3

Theory of Public Choice (13 hrs.)

- 3.1 Knut Wicksell's approach to revealing social preferences – Absolute Unanimity, Relative Unanimity, Gordon Tullock – Decision Making Cost and Voter Externality Cost
- 3.2 Erik Lindahl and H.Bowen's Model
- 3.3 Majority Voting and Public goods –the Theory of Voting –Condorcet Winner, Voting Paradox –Arrow's Impossibility Theorem –Interest groups –Political Coalitions and Log Rolling and lobbying
- 3.4 Theory of Rent Seeking

Unit 4

Public Expenditure (13 hrs.)

- 4.1 Public Expenditure in India –Structure and Growth
- 4.2 Role of the Public Sector in India

- 4.3 Pricing of the Public Sector – The Second Best Theorem, Peak Load Pricing Mechanism. User Prices for Public goods
- 4.4 Cost Benefit Analysis

Unit 5

Principles of Taxation

(15 hrs.)

- 5.1 Introduction to Taxation in the circular flow
- 5.2 Classification of Taxes – Taxes in India-Types, Features, Trends –recent developments.
- 5.3 Approaches to tax equity –Benefit Approach and Ability to Pay Approach. The Ramsey rule for efficient taxation. Excessive Taxation, Tax evasion and the Laffer curve.
- 5.4 Principles of Tax Incidence – Partial Equilibrium view of Product and Factor taxes. Musgrave’s Concept of tax and expenditure incidence – measuring changes in distribution

BOOKS FOR STUDY

Boadway. R. W. *Public Sector Economics*. Massachusetts: Cambridge Winthrop Publications, 1979.

Herber. Bernard. P. *Modern Public Finance, The Study of Public Sector Economics*New Delhi: AITBS, 2004.

Hillman. A. L. *Public Finance and Public Policy*. UK: Cambridge, 2003.

Lekhi. R. K. *Public Finance*. Ludhiana: Kalyani, 2011.

Musgrave. Richard. A. *The Theory of Public Finance.*, New York: McGraw Hill, 2009.

Musgrave, R. A. and Musgrave P. B. *Public Finance in Theory and Practice*. New York: Asian Student Edition, 2009.

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Buchanan, J. M. & Flowers. R. M. *The Public Finances An Introductory Textbook*. Illinois: Irwin Homewood, 1987.

Mueller. D. C., *Public Choice*. Cambridge: University Press, 1989.

Sankar. U. *Public Sector Pricing, Theory and Applications*. IEA Trust for Research and Development, 1992.

Winfrey. J.C. *Public Finance- Public Choices and the Public Economy*. New York: Harper and Row, 1973.

JOURNALS

Canadian Journal of Economics

Journal of Public Economics

Journal of Urban Economics

WEB RESOURCES

<https://books.google.co.in/books?id=M-2M5Q2kVLcC&pg=PA244&dq=discourse+on+public+goods&hl=en&sa=X&ei=0rcmVbGqGcnbuQTqmoD4CA&ved=0CCcQ6AEwAg#v=onepage&q=discourse%20on%20public%20goods&f=false>

<https://books.google.co.in/books?id=c7W916Ep9joC&pg=PA82&dq=Lectures+on+principles+of+maximum+social+advantage&hl=en&sa=X&ei=M7omVZrCDcKxuASgvoGAAQ&ved=0CC4Q6AEwAw#v=onepage&q=Lectures%20on%20principles%20of%20maximum%20social%20advantage&f=false>

<https://books.google.co.in/books?id=1QpswqcdDLIC&pg=PR12&dq=Lectures+on+federalism+in+india&hl=en&sa=X&ei=gLomVbfuNYOCuwSN1oDICA&ved=0CCUQ6AEwAg#v=onepage&q=Lectures%20on%20federalism%20in%20india&f=false>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 10 = 30 Marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 Marks (Answer any 1 out of 2 questions in 1200 words each)

Third Component:

Quiz

Open book tests

Assignment

Seminar - Presentation

Viva Voce

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5 x 8 = 40 Marks (Answer any 5 out of 7 questions in 300 words each)

Section B – 3 x 20 = 60 Marks (Answer any 3 out of 5 questions in 1200 words each)

SYLLABUS

(Effective from the academic year 2015 -2016)

HUMAN RESOURCE DEVELOPMENT

CODE: 15EC/PC/HR34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS:65

OBJECTIVES OF THE COURSE

- To highlight the importance of human capital formation
- To analyse the factors which promote human capital formation

Unit 1

Introduction to Human Resource (15 hrs.)

- 1.1 Definition, significance of HRD
- 1.2 Overview of the contributions – Schultz, Denison, Becker
- 1.3 Public Choice Perspective -Human Development Paradigm and Capability approach. Mahbub –ul-Haq and Sen
- 1.4 Human Capital and Economic Growth –Denison – Growth Accounting teamwork – Solow and Romer –Role of technology - Knowledge –AK model – Hanushek- Cognitive Skills and Economic Growth
- 1.5 Measurement – HDI,GDI and GEM –Review of indexes

Unit 2

Education (12 hrs.)

- 2.1 Approaches to Education –Human Capital, Screening Signalling Hypothesis
- 2.2 Determinants of investment in education – private and public investment – role of the government
- 2.3 Education Production Function
- 2.4 Rate of return- Mincer ,Blaug, Pscharapolous - Private and Social returns
- 2.5 Financing Education –User Fee, Voucher, Loans

Unit 3

Education –Issues and Policies (13 hrs.)

- 3.1 Challenges in Education –Issues pertaining to expanding equity efficiency – and inclusion
- 3.2 Education Policy in India- SSA, RTE, RMSA, RUSA
- 3.3 Country specific studies with respect to education

Unit 4

Health (15 hrs.)

- 4.1 Role of Health in development
- 4.2 Essentials of health economics
- 4.3 Determinants of Health
- 4.4 Market Failure, Externalities

- 4.5 Health Care Services –Role of Private and Public Sector
- 4.6 Health care financing and Health insurance
- 4.7 Health policy in India – National Health Policy 2002, NRHM, NUHM

Unit 5

Other Dimensions of Human Resource Development (10 hrs.)

- 5.1 Skill Development and training –Becker –On the Job Training Model
- 5.2 Manpower planning –meaning, significance –Forecasting method and problems
- 5.3 Productivity – measurement, importance and problems

BOOKS FOR STUDY

Chattopadhyay. Saumen. *Education in Economics –Disciplinary Evolution and Policy Discourse*, New Delhi: OUP, 2012.

Jones. Charles. I. *Introduction to Economic Growth*, New Delhi: Viva Books,2013.

McPake, Barbara & Charles. Normand. *Health Economics –An International Perspective*. London:Routledge. 2006.

BOOKS FOR REFERENCE

Badge. Ashish. Arolo. Surendrakumar. *Dimensions of Economic Theory and Policy*. New Delhi: OUP,2000.

Basu. Kaushik.(Ed). *The Oxford Companion to Economics in India*. New Delhi: Oxford University Press,2007.

Borjas. J.George. *Labour Economics*. New York: McGraw Hill – Irwin,2005.

Fukuda, Parrand Shivakumar. A.K.(Ed), *Readings in Human Development*. New Delhi: OUP, 2005.

Gerald,Meier and James. E. Rauch. *Leading Issues in Economic Development*. New Delhi: OUP, 2005.

Glewwer, Paul, *Education Policy in Developing Countries* (ed.) University of Chicago: Chicago Press, 2013.

Hanushek, Eric & Finis. Welch. *Handbook of the Economics of Education, Vol. & 2*. Melbourne: Elsevier,2006.

Saleth. Maria. R. *From Individuals to Community*. (Eds.) New Delhi: Sage, 2012

Takatoshi, Ito and Andrew. K. Rsou. (Eds,) *Growth and Productivity in East Asia*. Chicago: Chicago,2013.

JOURNALS

Human Resource Development Review

WEB RESOURCES

www.undp.org/HDRReports

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Group discussion

Assignments

Case studies

NO END SEMESTER EXAMINATION:

Submission of a Term Paper with the paper related research study. Topic to be approved by the course teacher.

Total marks 100 (to be reduced to 50 marks)

Term paper - 50 marks

Presentation - 25 marks

Viva voce – 25 marks

Evaluation of the Term Paper Presentation and viva voce to be done by a panel of examiners consisting of the heads, and the course teacher.

Evaluation of the Term Paper to be done by the course teacher and an external examiner from the department

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A.DEGREE: BRANCH III – ECONOMICS

SYLLABUS
(Effective from the academic Year 2015-2016)

SUMMER INTERNSHIP

CODE: 15EC/PN/SI32

CREDITS:2

OBJECTIVES OF THE COURSE

- To enable the students to connect theoretical foundations in Economics to the related fields in the economy
- To provide the students with an opportunity to avail of hands on experience with regard to the industry and/or field of study
- To open up avenues for further research and employment

The department would help students to be placed under various agencies for summer internship according to the area of Interest. It is permitted for the students to also look for related internships which would interest them independently. Each student will have to maintain the following

1. A record of work done which is duly endorsed by the agency – Alog book
2. The student will have to submit a written report at the end of the internship, and make a presentation with the help of a PPT. This would be evaluated internally for 50 marks
3. There has to be an accompanying letter from the agency stating that the student has interned with them for a period of not less than 75 hours (3 – 4 weeks). This letter must also include how much the candidate has scored.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH III -ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

MACRO ECONOMICS II

CODE: 15EC/PC/MA44

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To give a comprehensive view of the post Keynesian Macro Economic Model
- To address the issues of economic Fluctuations and Policy Debates

Unit 1

Neo-Keynesian Macro models (13 hrs.)

- 1.1 Post-Keynesian Economics
- 1.2 Reinterpretation of Keynes as Non-Walrasian Equilibrium Economics
- 1.3 Neo-Keynesian quantity constraint model

Unit 2

New Classical Macro Economics (15 hrs.)

- 2.1 New Classical macro model
- 2.2 Policy implications
- 2.3 Critique of New Classical Approach

Unit 3

Business Cycle (10 hrs.)

- 3.1 Keynesian trade Cycle Theory
- 3.2 The Monetarist Interpretation of Business Cycle
- 3.3 Real Business Cycle
- 3.4 The Oil Shocks

Unit 4

Open Economy Model (12 hrs.)

- 4.1 IS-LM in the Open Economy
- 4.2 Mundell –Fleming Model
- 4.3 The Small Open Economy Under Floating Exchange Rate
- 4.4 The Small Open Economy Under Fixed Exchange Rate

Unit 5

Macro Economic Policy (15 hrs.)

- 5.1 Objectives of economic polices
- 5.2 Conflicts and co-ordination of objectives
- 5.3 Instruments of Economic policies
- 5.4 The Traditional Keynesian Case for Active Policy
- 5.5 The Case Against Activist Policy :- Destabilization
- 5.6 The New Classical Critique of Activist Policy

BOOKS FOR STUDY

Blanchard. Oliver. *Macroeconomics*. India: Pearson Education, 2011.

Dornbusch, Rudiger, Stanley Fischer and Richard Startz. *Macro Economics*. New Delhi; Tata McGraw-Hill, 2004.

Froyen. Richard T. *Macro Economic Theories and Policies*. New York; Maxwell, 2005.

Heijdra. Ben. *The Foundation of Modern Macroeconomics*. London: OUP, 2009.

Levacic, Rosalin, and Alexander Rebmann, *An Introduction to Keynesian –Neoclassical Controversies*. UK: Macmillian Publishers, 1991.

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Gardner. Ackley. *Macroeconomic Theory and Policy*. New York: Collier and Macmillan, 1987.

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JOURNALS

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REPORTS

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WEB RESOURCES

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PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (3 out of 5 questions to be answered in 300 words each)

Section B – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

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Group discussion

Assignments

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End Semester Examination

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STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A DEGREE: BRANCH III -ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

PUBLIC ECONOMICS- II

CODE: 15EC/PC/PE44

CREDITS : 4

L T P :4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an exposure to students on issues relating to public debt, budgeting, fiscal federalism and fiscal policy
- To understand the nature of the Indian fiscal system
- To learn all the mechanisms involved in financial administration and passing of budget in India

Unit 1

Public Debt

(10 hrs.)

- 1.1 Growth of Public Debt
- 1.2 Domar's Theory of Public Debt
- 1.3 The Debt Burden Thesis – Intergenerational Debt Burden
- 1.4 Debt Management

Unit 2

Budgeting

(12 hrs.)

- 2.1 Concept and Classification
- 2.2 Programme and Performance Budgeting
- 2.3 Zero Base Budgeting System

Unit 3

Fiscal Policy

(14 hrs.)

- 3.1 Classical views of Sound Finance
- 3.2 Evolution of Fiscal Policy
- 3.3 Compensatory Fiscal Policy – Lerner's Functional Finance.
- 3.4 Monetary Vs Fiscal Policy
- 3.5 Fiscal Policy in Under Developed Economies – Raja Chelliah's Activating Finance

Unit 4

Fiscal Federalism

(16 hrs.)

- 4.1 Introduction – Principles of Federal Finance
- 4.2 Vertical and Horizontal Imbalances – Balancing factors
- 4.3 Indian Fiscal Federalism – Constitutional provisions regarding financial powers
- 4.4 Resource transfer mechanisms in the Indian financial system – roles, recommendations, evaluations of Finance Commissions – various criteria
- 4.5 Theory of Grants
- 4.6 The federal system in India and regional development

Unit 5**Indian Fiscal System****(13 hrs.)**

- 5.1 Classification and growth of revenue and expenditure
- 5.2 Tax and non tax revenue of Centre and State – Development and Non Development Expenditure and Plan and Non Plan Expenditure at different levels of governance
- 5.3 Public Expenditure – cause and growth
- 5.4 Public Debt – Internal and External – Recent Trends
- 5.5 The Budget of the Central Government (Current Budget alone)
- 5.6 Effects of taxes - problems and reforms (Since 1991)
- 5.7 Deficit Financing – Scope – role and consequences. Liberalization and Fiscal Reforms

BOOKS FOR STUDY

Boadway.R. W.*Public Sector Economics*. Massachusetts: Cambridge Winthrop, 1979.

Chelliah. R. J. *Towards Sustainable Growth: Essays in Fiscal and Financial sector Reforms in India*.New Delhi: Oxford University Press, 1996.

Chelliah.R. J. *Fiscal Policies in Under Developed Countries*. London: George Allen, 1971.

Govinda. M. R. *Development Poverty and Fiscal Policy: Decentralization of Institutions* New Delhi: Oxford University Press,2002.

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Winfrey. J.C. *Public Finance- Public Choices and the Public Economy*. New York: Harper and Row, 1973

JOURNALS

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Journal of Public Economics

Journal of Urban Economics

REPORTS

GOI Reports – Various Tax Reforms Reports

GOI Reports – Various Finance Commissions Reports

WEB RESOURCES

<https://books.google.co.in/books?id=M-2M5Q2kVLcC&pg=PA244&dq=discourse+on+public+goods&hl=en&sa=X&ei=0rcmVbGqGcnbuQTqmoD4CA&ved=0CCcQ6AEwAg#v=onepage&q=discourse%20on%20public%20goods&f=false>

<https://books.google.co.in/books?id=c7W916Ep9joC&pg=PA82&dq=Lectures+on+principles+of+maximum+social+advantage&hl=en&sa=X&ei=M7omVZrCDcKxuASgvoGAAQ&ved=0CC4Q6AEwAw#v=onepage&q=Lectures%20on%20principles%20of%20maximum%20social%20advantage&f=false>

<https://books.google.co.in/books?id=IQpswqcdDLIC&pg=PR12&dq=Lectures+on+federalism+in+india&hl=en&sa=X&ei=gLomVbfuNYOCuwSN1oDICA&ved=0CCUQ6AEwAg#v=onepage&q=Lectures%20on%20federalism%20in%20india&f=false>

<http://indiabudget.nic.in/>

<http://indiabudget.nic.in/budget.asp>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 X 10 = 30 Marks (3 out of 5 questions to be answered in 300 words each)

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Third Component:

Quiz

Open Book Tests

Assignment

Seminar - Presentation

Viva Voce.

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5 X 8 = 40 Marks (5 out of 7 questions to be answered in 300 words each)

Section B – 3 X 20 = 60 Marks (3 out of 5 questions to be answered in 1200 words each)

SYLLABUS

(Effective from the academic year 2015 -2016)

ENVIRONMENTAL ECONOMICS

CODE: 15EC/PC/EE44

CREDITS: 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To impart a comprehensive view of the development of theories in environmentaleconomics
- To highlight the application of economic techniques to the analysis of environmental problem

Unit 1

Introduction to Environmental Economics (12 hrs.)

- 1.1 The rationale of environmental economics
- 1.2 The evolution and growth of environmental economics
- 1.3 Ecological economics – cowboy Vs spaceship
- 1.4 Social Welfare Function – maximum social advantage – Inter-temporal efficiency.

Unit 2

Environmental Problems and Policy Solutions (15 hrs.)

- 1.1 Classification and forms of pollution
- 1.2 Pollution abatement and Issues in economics of pollution
- 1.3 Wetzman Theorem – price versus quantity
- 1.4 Environmental legislations in India

Unit 3

Energy and Environment (10 hrs.)

- 3.1 Economics of energy – an overview
- 3.2 Energy conservation and environmental implication
- 3.3 Economics of cleaner technology
- 3.4 DPSIR framework

Unit 4

Economics of Natural Resources (13 hrs.)

- 4.1 Overview of natural resources – measuring scarcity
- 4.2 Economics analysis of non-renewable resources – Risk and uncertainties – resource depletion model
- 4.3 Renewable resource economics – Dynamics of resource harvesting - fisheries

Unit 5

Current Environmental Issues and Policies (15 hrs.)

- 5.1 Population, poverty and urbanisation and environmental quality
- 5.2 International trade and environment

- 5.3 Economics of climate change
- 5.4 Bio-diversity conservation and environment.
- 5.5 International Agencies to protect – global negotiations, Kyoto protocol, TRIPS, Montreal Protocol, and Stockholm convention.

BOOKS FOR REFERENCE

Baumol William, T and Wallace E Oates. *Economics, Environmental Policy and Quality of Life*. USA: Prentice Hall, 1977.

Field, Barry, C. *Environmental Economics – An Introduction*. USA: McGraw, 1994.

Hanley, Nick, Jason F. Shogren and Ben White. *Environmental economics in Theory and Practice*. New Delhi: Macmillan, 1997.

Hussen M Ahmed Principles of Environmental Economics: Economics, Ecology and Public sector. London: Routledge, 1999.

Kolestad. Charles. D. *Environmental Economics*. New York: Oxford University Press, 2000.

Pearce D. W and Kerry R. Turner *Economics of Natural Resources and Environment*. New York: Harvester, 1989.

Singh, Katar & Anil. Shishodia. *Environmental Economics: An Indian Perspective*. New Delhi: Oxford University Press, 2007.

Teintenberg, Tom, *Environmental and Natural Resource Economics*. New Delhi: Pearson, 2004.

JOURNAL

Journal of Environmental Economics

Journal of Public Economic Theory

WEB RESOURCES

<https://books.google.co.in/books?id=9eyjCL4M3doC&pg=PR9&dq=lectures+on+environmental+economics+india&hl=en&sa=X&ei=GL8mVdfrMdSLuwSx94Fo&ved=0CCUQ6AEwAA#v=onepage&q=lectures%20on%20environmental%20economics%20india&f=false>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Quiz

Group Presentation

Assignment

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5 x 8 = 40 marks (Answer any 5 out of 7 questions in 300 words each)

Section B – 3 x 20 = 60 marks (Answer any 3 out of 5 questions in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A.DEGREE : BRANCH III – ECONOMICS

SYLLABUS
(Effective from the academic Year 2015-2016)

DISSERTATION

CODE: 15EC/PC/DI45

CREDITS: 5
LTP : 008

Guidelines

➤ **Page Limit:**

The Dissertation shall be within a space of about 50 – 75 pages typed in font size 12, with 1 ½ line spacing on A4 Size paper

➤ **Title of the Dissertation :**

Each Dissertation should contain the following – ‘Dissertation submitted to Stella Maris College (Autonomous), Chennai in partial fulfillment of the requirement for the Degree of Master of Arts in Economics by name of the candidate, Department of Economics, Place, Month, Year

➤ The Dissertation shall contain :

- Contents Page
- The Dissertation Copy will include Certificate of the Supervisor, Declaration, and Acknowledgement.
- Five Chapters
- Introductory chapter comprising of scope & significance, objectives, hypothesis, methodology, limitations, review of literature/background of the study (can be a separate chapter also) chapterization, definitions and concepts if any. The student can use Quantitative or Qualitative/Descriptive or both methods.
- The final chapter shall contain “Summary and Conclusions’,
- At the end of the Dissertation ‘Bibliography’ must be given in alphabetical/chronological order and necessary appendix may be added.

➤ **Submission:**

Each student may prepare two copies of the thesis one for her and one copy to be submitted to the Head of the Department duly signed by the supervisor, 15 days before the commencement of the end semester examination.

➤ **Guidelines for Evaluation:**

- | | |
|--|----|
| • Style, format and neatness in presentation | 15 |
| • Methodology, review of literature/background of the study and identification of significant issues | 15 |

• Chapterization, presentation of the theme	15
• Creativity, analysis, logic, reasoning, and conclusion	30
• Thesis	75
• Viva Voce	25
• Total	100

There will be double valuation for the dissertation by the guide and an external examiner, who will also conduct the viva- voce. The viva voce marks are given only by the external examiner. The norms for valuation will be the same as applicable for theory papers

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
Elective Course Offered by the Department of Economics to students of the
M.Com Degree Program

SYLLABUS
(Effective from the academic year 2015 -2016)

ECONOMICS FOR MANAGERS

CODE: 15EC/PE/EM34

CREDITS: 4

L T P :4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the relevance of economics in business management
- To enable an understand of the basic principles in economics and integrate the same with managerial decision making

Unit 1

Introduction (9 hrs.)

- 1.1 Nature, Meaning of Managerial Economics – Concept of risk and uncertainty
- 1.2 Approaches to managerial decision making
 - 1.2.1 Statistical Decision Making
 - 1.2.2 Bayesian Analysis
 - 1.2.3 Game Theory

Unit 2

Analysis of Demand, Production and Costs(12 Hrs.)

- 2.1 Demand
 - 2.1.1 Demand Distinctions
 - 2.1.2 Demand Forecasting
 - 2.1.3 Simple Problems of Demand with given data set
- 2.2 Production
 - 2.2.1 Productions Functions
 - 2.2.2 Simple Input and Two Variable Input Production Functions
 - 2.2.3 Simple Problems of Production Function with given data set
- 2.3 Cost
 - 2.3.1 Types of Cost
 - 2.3.2 Cost Functions
 - 2.3.3 Simple Problems of Cost Function with given data set

Unit 3

Pricing (10 Hrs.)

- 3.1 Pricing Objectives
- 3.2 Pricing Methods and Approaches
 - 3.2.1 Cost Plus Pricing
 - 3.2.2 Variable Mark-Up
 - 3.2.3 Intuitive Pricing
 - 3.2.4 Experimental Pricing
 - 3.2.5 Stable and Imitative Pricing

3.2.6 Price Leadership

Unit 4

Promotion

(10 Hrs.)

- 4.1 Determination of the Advertising Budget
- 4.2 Short Run Budgeting
 - 4.2.1 Incremental Method
 - 4.2.2 Percentage of Sales Method
 - 4.2.3 Objective and Task Method
- 4.3 Long Run Budgeting –Cyclical Consideration

Unit 5

Profit

(11hrs)

- 5.1 Concept of Profit –Economic and Accounting Profit
- 5.2 Profit Theories
 - 5.2.1 Compensatory or Function Theories
 - 5.2.2 Friction and Monopoly Theories
 - 5.2.3 Technological and Innovation Theories
- 5.3 Profit Management
- 5.4 Breakeven Analysis

BOOKS FOR STUDY

Maheshwari. K.L and Varshney.R.L *Managerial Economics*.New Delhi: Sultan Chand and sons,2007.

Metha. P.L *Managerial Economics-Analysis, Problems and Cases*.New Delhi: Sultan Chand and Sons,2008.

BOOKS FOR REFERENCE

Petersen. H. Craig and Lewis. W. Chris,*Managerial Economics*. New Delhi: Prentice Hall of India, 1995.

Spencer .H Milton ,Seo.K.K ,Simkin.G.Mark,*Managerial Economics-Text, Problems and Short cases*. Illinois:R.D.Irwin Homewood, 1975.

JOURNALS

The Journal of Managerial Economics

International Journal of Economics and Management

WEB RESOURCES

http://www.comp.nus.edu.sg/~ipng/mecon/sg/01int_sg.pdf

http://moya.bus.miami.edu/~dkelly/teach/eco685/eco685notes_intro_prod.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 =30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 =20 marks (Answer any 1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5 x 8 =40 marks (Answer any 5 out 7 questions in 300 words each)

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A. DEGREE: BRANCH III – ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

ECONOMETRIC METHODS

CODE: 15EC/PE/EC14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To provide an elementary but comprehensive introduction to the subject
- To understand the economic implications and relevance of these tools required to formulate simple econometric Models

Unit 1

Introduction (2 hrs.)

- 1.1 Econometrics - Definition
- 1.2 Classical Econometric Methodology

Unit 2

Two Variable Linear Regression Analysis (15 hrs.)

- 2.1 Linear Regression Model – Assumptions and Principles
- 2.2 Derivation of OLS Estimator and its Properties
- 2.3 Standard Error
- 2.4 Gauss Markov Theorem- Derivation
- 2.5 Coefficient of Determination
- 2.6 Hypothesis Testing
- 2.7 Estimation of a Two Variable Model

Unit 3

Three Variable Linear Regression Model (10 hrs.)

- 3.1 Introduction to the Model
- 3.2 Estimations of the Model by OLS Method
- 3.3 Hypothesis Testing
- 3.4 Coefficient of Determination
- 3.5 Functional Form of Regression Models: Double Log, Semi Log, Reciprocal Models
- 3.6 Regression Using Dummy Variable Techniques- Testing for Structural Stability of Regression Model, Interaction Effects, Seasonal Analysis, Use of Dummy Variable in Analysing Time Series & Cross –Sectional Data

Unit 4

General Linear Model (Matrix Approach) (10 hrs.)

- 4.1 Introduction to the General Linear Model- Assumptions, Properties of OLS Estimators

- 4.2 Derivation of Gauss Markov theorem
- 4.3 Estimation and Hypothesis Testing

Unit 5

Problems on Estimation- Departure from Classical Models (15 hrs.)

- 5.1 Multicollinearity- Nature, Consequences, Defective and Remedial measures
- 5.2 Heteroscedasticity- Nature, Consequences, Defective and Remedial measures
- 5.3 Auto-Correlation- Nature, Consequences, Defective and Remedial measures

BOOKS FOR STUDY

Damodar. N.Gujarati.*Basic Econometrics*.New Delhi: McGraw Hill International,2011.

Damodar. N. Gujarati & Dawn, C. Porter, *Basic Econometrics*,New Delhi: Irwin/McGraw Hill, 2011.

Ramu. Ramanathan.*Introductory Econometrics with Applications*,New York: Harcourt College, 2000.

BOOKS FOR REFERENCE

Christopher. Dougherty, *Introduction to Econometrics*, 4th edition, London: Oxford University Press, 2011.

Damodar. N. Gujarati &Dangeetha, S *Basic Econometrics*, 4th edition, New York: McGraw Hill,2007.

Dominick, Salvatore & Derrick Reagle, *Statistics and Econometrics, Schaum's Outlines* 2nd edition,Schaum's Series, 2011.

Koutsoyiannis.A.*Theory of Econometrics*, 2nd edition, London: Macmillan Press, 1977.

JOURNALS

Journal of Applied Econometrics

The Econometrics Journal

WEB RESOURCES

<http://egei.vse.cz/english/wp-content/uploads/2012/08/Basic-Econometrics.pdf>

<http://www.bseu.by/russian/faculty5/stat/docs/4/Creel,Graduate%20Econometrics.pdf>

<http://www.bseu.by/russian/faculty5/stat/docs/4/Davidson,MacKinnon,%20Econometric%20Theory%20and%20Methods.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 10 = 30$ marks (Answer any 3 out of 5 questions in 300 words)

Section B – $1 \times 20 = 20$ marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Problem solving

Quiz

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A– $5 \times 8 = 40$ marks (5 out of 7 questions to be answered in 300 words each)

Section B– $3 \times 20 = 60$ marks (3 out of 5 questions to be answered in 1200 words each)

SYLLABUS
(Effective from the academic year 2015 -2016)

ECONOMICS FOR BUSINESS AND MARKETING

CODE: 15E/PE/EB14

CREDITS: 4

L T P :4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To analyse the overall objectives of an organization
- To understand the use of appropriate strategies for the achievement of this objective

Unit 1

Structure and

Growth of an Organization(10 hrs.)

- 1.1 Objectives of a Business Organization –Profit, Growth, Sales, Utility Maximization
- 1.2 Definition and Element of Organizational Structure
- 1.3 Common Organizational Designs –Traditional and Modern
- 1.4 Reasons for differences in the Structure of Organizations
- 1.5 Organization Development – Foundations of Organization Development, Characteristics and Process of Organization Development

Unit 2

Product and Service: Growth and Development (11 hrs.)

- 2.1 Product and Service Classification
- 2.2 Product Line and Product Mix Decisions
- 2.3 New Product Development Strategy and Product life Cycle Strategy
- 2.4 The Nature and Characteristics of a Service
- 2.5 Marketing Strategies for Service Firms

Unit 3

Marketing Channels and Supply Chains Management (11 hrs.)

- 3.1 The Nature of Marketing Channels
- 3.2 Channel Behaviour and Organization
- 3.3 Channel Design Decision
- 3.4 Channel Management Decisions
- 3.5 Marketing Logistics and Supply Chain Management

Unit 4

Advertising, Sales Promotion and Public Relations(10 hrs.)

- 4.1 Selling Advertising, Objectives and Advertising Budget, Developing and Evaluating Advertising Strategy
- 4.2 Objectives of Sales Promotion, Major Sales Promotion Tools; Developing the Sales Promotion Program
- 4.3 The Role and Impact of Public Relations, Major Public Relations Tools
- 4.4 Branding Strategy, Brand Equity and Building Strong Brands

Unit 5

Motivation and Performance Appraisal

(10 hrs.)

- 5.1 Motivational Drives
- 5.2 Models of Motivation –Maslow’s Hierarchy of Needs, Herzberg’s Two Factor Model, Alderfer’s E-R-G Model, The Expectancy and Equity Model
- 5.3 Performance Appraisal –the Purpose of Appraisal and the Appraisal Process

BOOKS FOR REFERENCE

Davis, Keith, and Newstrom W. John, *Human Behaviour at Work, Organizational Behaviour*. New Delhi: Tata McGraw Hill, 2006

Kotler, and Armstrong, *Principles of Marketing*. New Delhi: Prentice Hall of India, 2004.

Prasad. L.M., *Human Resource Management*. New Delhi: Sultan Chand, 2005.

Tripathi. P.C., *Human Resource Development*. New Delhi: Sultan Chand, 2010.

Kotler. Philip, *Principles of Marketing*. New Delhi: Prentice Hall of India, 2010.

Stephen. Robbins P, *Essentials of Organizational Behaviour*. New Jersey: Prentice Hall, 1986.

JOURNALS

Quantitative Marketing and Economics

Journal of Economics and Business

WEB RESOURCES

<http://www.behavioraleconomics.com/BEGuide2014.pdf>

<http://dash.harvard.edu/bitstream/handle/1/2962609/behavioral%20economics%20and%20marketing.pdf?sequence=2>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (3 out of 5 questions to be answered in 300 words each)

Section B – 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A– 5 x 8 = 40 marks (5 out of 7 questions to be answered in 300 words each)

Section B– 3 x 20=60 marks (3 out of 5 questions to be answered in 1200 words each)

SYLLABUS
(Effective from the academic year 2015 -2016)

CONTEMPORARY ECONOMIC ISSUES

CODE: 15EC/PE/CI24

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To understand concepts in Economics and thereby enable a comprehensive application of such concepts in the current economic scenario
- To help grasp the various nuances that connect with Economics per se, and in that way identify the causes for the various economic issues of the present day

Unit 1 **Introduction: The Ideology within Economics(10 hrs.)**

- 1.1 A brief overview of the concept of economic systems –Capitalism, Socialism, Mixed –Gandhian Model
- 1.2 The trend in economic ideologies over the years: free market laissez faire –capitalism to planned development –role of the government –to liberalization and globalization
- 1.3 Problems of development with special reference to India –economic and non-economic

Unit 2 **Poverty and Economic Inequality (10 hrs.)**

- 2.1 Meaning of poverty –magnitude and causes –basic measures of poverty – HPI
- 2.2 Economic growth –economic justice –freedoms and capabilities
- 2.3 Aspects of rising inequalities –impoverishment and misery
- 2.4 Unemployment –types and the current scenario
- 2.5 Women and children in the labour market

Unit 3 **Political Economy and Role of the Government (10 Hrs.)**

- 3.1 Public versus private goods –need for taxation and public expenditure
- 3.2 India –a federal state –meaning of federalism- principles
- 3.3 Fiscal budgetary developments
- 3.4 The budget and its impact on the Indian economy

Unit 4 **International Trends and Issues (12 Hrs.)**

- 4.1 Free trade versus protection –tariffs and non-tariff barriers
- 4.2 Economic crisis in India in the late 1980's –SAP-LPG
- 4.3 A brief introduction to concepts –Globalization –Glocalization
- 4.4 International Institutions –IMF, World Bank, UNCTAD,GATT

- 4.5 A brief overview of WTO –TRIPS, TRIMS, AOA, Sanitary And Phytosanitary Measures
- 4.6 Globalization –positive and negative impacts. Special Economic Zones – outsourcing and the global recession

Unit 5

Economic Security Issues

(10 Hrs)

- 5.1 Security as an economic resource –factors that lead to a secure life
- 5.2 threat to security –food security, marginalization of groups- reasons – gender, age, class, caste, environmental factors –environmental degradation, global warming, pollution. impediments to access to health, nutrition and education. religious and cultural factors, regionalism, war, terrorist
- 5.3 Restoration of an egalitarian society –concept of freedoms–Amartya Sen. Role of the state towards equality and justice
- 5.4 Application – Take any one country and any one major problem and try and relate one to the above problems to the country's economic growth

BOOKS FOR STUDY

Datt and Sundaram. *Indian Economy*, New Delhi:S. Chand, 2007.

Carbaugh. R.J. *International Economics*.UK: Cengage Learning, 2008.

Michael.P.Todaro. *Economic Development*. U.S.A. and London: Longman,1995.

BOOKS FOR REFERENCE

Agarwal. B. J. Humphries & I. Robeyns (Eds.).*Capabilities Freedom & Equality*. New Delhi:Oxford University Press, 2006.

Browning. E.K.*Public Finance and the Price System*. New Delhi:Pearson, 1994.

Cherunilam, Francis. *International Economics*, New Delhi: Tata McGraw Hill, 2012

Cullenberg S. &P. K. Patnaik (ed.). *Globalization, Culture, and the Limits of the Market – Essays in Economics and Philosophy*.New Delhi: Oxford University Press,2004.

Das Gupta S. & Ray Kiely (eds.). *Globalization and After*. New Delhi:Sage,2006.

Dhingra.I.C.*The Indian Economy Environment and Policy*. New Delhi:SultanChand, 2007.

Enders, W. & T. Sandler.*The Political Economy of Terrorism*. New York:Cambridge University Press,2006.

Jogdand, P.G. & S. M. Michael. (Eds.). *Globalization and Social Movements*, New Delhi:Rawat,2003.

Pirages, Dennis & K. Cousins. (Eds.). *From Research Scarcity to Ecological Security*, New Delhi: Oxford University Press, 2008.

Rodrik.Dani. *The Globalization Paradox*, United Kingdom: Oxford University Press, 2011.

Sen. Amartya. *Development as Freedom*. New Delhi:Oxford University Press,2000.

Sen. Amartya. *Identity & Violence*. New Delhi:Penguin Books, 2006.

Shah. P. J. *Morality and Markets*. New Delhi: Academic Foundations,2004.

Steger. M.B., *Globalization: The New Market Ideology*. New Delhi:Rawat Publications, 2004.

Uma.Kapila (Ed.). *Indian Economy Since Independence*. New Delhi:Academic Foundation, 2006 – 07.

JOURNALS

Economic and Political Weekly

International Journal of Sustainable Development & World Ecology

Journal of Social and Development studies

The Economist

International Journal of Human Resource Development and Management

WEB RESOURCES

<http://www.in.undp.org/>

www.imf.org

www.worldbank.org

www.wto.org

www.unctad.org

www.un.org

www.rbi.org.in

<http://mhrd.gov.in/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (3 out of 5 questions to be answered in 300 words each)

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Third Component:

List of evaluation modes:

Seminars

Quiz

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Assignments

Problem solving

Case studies

End Semester Examination

Total Marks: 100

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A DEGREE: BRANCH III– ECONOMICS

SYLLABUS
(Effective from the academic year 2015-16)

ADVANCED MANAGERIAL ECONOMICS

CODE: 15EC/PE/AM14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To apply economic theory and methods to business and administrative decision making
- To develop the ability to understand the business environment in order to analyse opportunities and take decisions under certainty

Unit 1

Demand Estimation and Business Forecasting Technique (15 hrs.)

- 1.1 Demand estimation using marketing research and statistical techniques
- 1.2 Simple Linear Regression Model –Interpretation and problems in applying the linear regression model
- 1.3 Business forecasting techniques –Deterministic time series, smoothing techniques, Barometric techniques, Survey and opinion Polling technique
- 1.4 Introduction to Non Linear Regression model –Semi Logarithmic Transformation, Reciprocal and Double Log Transformation

Unit 2

Pricing Techniques (8 hrs.)

- 2.1 Objectives of Pricing
- 2.2 Pricing methods –Cost plus pricing, Variable mark up pricing, Intuitive Pricing, Experimental Pricing, Stable and Imitative pricing, Incremental Cost Pricing
- 2.3 Pricing Strategies –Product line pricing, Differential pricing, Transfer pricing

Unit 3

Business Strategy Games –Game Theory (9 hrs.)

- 3.1 Non co-operative games –simultaneous and sequential games
- 3.2 Equilibrium under sequential games –Business rivalry as a sequential game
- 3.3 Simultaneous games –Nash equilibrium strategy

Unit 4

Capital Budgeting (10 hrs.)

- 4.1 Value maximisation and Capital Budgeting
- 4.2 The capital budgeting process – Projecting cash flows, evaluating the capital project, capital rationing and the Profitability Ratio
- 4.3 The Cost of Capital –Cost of Debt Capital, Cost of Equity Capital, the Composite Cost of Capital

Unit 5**Risk and Decision Making****(10 hrs.)**

- 5.1 The concept of certainty, risk and uncertainty
- 5.2 Risk and Decision making –Risk Return, Evaluation Statistics, Risk Preference, Risk Aversion and Insurance
- 5.3 Adjusting Business Decision for Risk
- 5.4 Decision Tree Analyses

BOOKS FOR STUDY

McGuigan. James .R., Meyer R. Charles, Frederick H .deB. Harris, *Managerial Economics: Application, Strategy and Tactics*. Ohio: South Western Cincinnati, 2002.

Petersen, H. Craig and Lewis W.Chris.*Managerial Economics*. New Delhi: Prentice Hall of India,1999.

BOOKS FOR REFERENCE

Dean. Joel, *Managerial Economics*, New Delhi: Prentice Hall, 1968.

Spencer.Multon H, *ManagerialEconomics, Text Problems and Short Cases*. Illinois: Richard D Irwin, Homewood, 1968

JOURNALS

Journal of Managerial Economics

International Journal of Economics and Management

WEB RESOURCES

http://www.cengage.com/economics/discipline_content/preview_guide/preview_guide/PreviewGuide_McGuiganMoyerHarris_12e.pdf

<http://www.itu.dk/~mounma/bouba/081009/0127408525.pdf>

http://www.londoninternational.ac.uk/sites/default/files/programme_resources/lse/lse_pdf/subject_guides/mn3028_ch1-4.pdf

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End Semester Examination

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SYLLABUS
(Effective from the academic year 2015 -2016)

ADVANCED ECONOMETRICS

CODE: 15EC/PE/AE14

CREDITS : 4

L T P :4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the econometric methodology for empirical quantitative analysis of data
- To provide a solid ground for empirical research

Unit 1

General Linear Model (Matrix Approach) (10hrs.)

- 1.1 Introduction to General Linear Model, Assumption, Properties of OLS Estimators
- 1.2 Derivation of Gauss Markov Theorem -BLUE
- 1.3 Estimation and Hypothesis Testing

Unit 2

Simultaneous Equation Models (10 hrs.)

- 2.1 Introduction to Simultaneous Equation Models
- 2.2 Simultaneous Equation Bias –Simple Keynesian Income Determination
- 2.3 Identification Problem –Under Identification –Exact Identification, Over Identification
- 2.4 Rules for Identification – Order Condition, Rule Condition

Unit 3

Unit Model with Qualitative Dependent Variables(10 hrs.)

- 3.1 Logit Model – Estimation
- 3.2 Probit Model -Estimation

Unit 4

Dynamic Econometric Models (11 hrs.)

- 4.1 Role of Lags in Economics and the Reason for Lags
- 4.2 Auto- Regression and Distributed Lag models –Koyach Model –Partial Adjustment Model –Adaptive Expectations Model
- 4.3 Causality in Economics – The Granger test

Unit 5

Time Series Analysis (11 hrs.)

- 5.1 Introduction to Time Series Data and Analysis
- 5.2 Stationality –Unit Root Test
- 5.3 Co-integration Tests
- 5.4 Methods of Modelling Time Series Data –AR, MR and ARIMA

BOOKS FOR STUDY

Gujarati.Damodar. N. *Basic Econometrics*, New Delhi: McGraw Hill,2011.

Gujarati, Damodar N. & Dawn C. Porter, *Basic Econometrics*, 5th edition, Irwin/McGraw Hill, 2013

Ramanathan, Ramu, *Introductory Econometrics with Applications*, Fifth edition, New York: Harcourt College, 2013

BOOKS FOR REFERENCE

Greene. William H..*Econometric Analysis*. New York: Prentice Hall, 2000.

Kalirajan. K.P. *Applied Econometrics*. New Delhi: Oxford,1995.

Klein.Lawrence R..*An Introduction to Econometrics*. New York: Prentice Hall,1962.

Maddala,. G.S. *Econometric Methods and Applications*. New Delhi: Oxford University, 1994.

Patterson. Kerry, *Introduction to Applied Econometrics: A Time series Approach*. Palgrave Macmillan, 2000.

Pindyck. R.S &Rubinfeld, D.L, *Econometric Models & Econometric Forecasts*, US: McGraw Hill Higher Education, 2000.

Thomas. R. L. *Introductory Econometrics: Theory and Applications*, New Delhi:, Pearson Education,1993.

JOURNALS

Journal of Applied Econometrics

Journal of Econometrics

WEB RESOURCES

<http://www.ssc.wisc.edu/~bhansen/econometrics/Econometrics.pdf>

http://froelich.vwl.uni-mannheim.de/fileadmin/user_upload/froelich/teaching/Advanced_econometrics_Intro_C_LRM.pdf

<http://www.nes.ru/dataupload/files/programs/econ/preprints/2009/Problemnik.pdf>

http://sharecourse.upln.cn/courses/c_201_02/usercontent/guoji/hongch01.pdf

PATTERN OF EVALUATION

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Total Marks: 50

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Section A – 3 x 10 = 30 marks (3 out of 5 questions to be answered in 300 words each)

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Third Component:

List of evaluation modes:

Presentation of summary of research articles

Problem Assignments

Quiz

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5 x 8 =40 marks (5 out of 7 questions to be answered in 300 words each)

Section B – 3 x 20 = 60 marks (3 out of 5 questions in 1200 words each)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A DEGREE: BRANCH III -ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

INDUSTRIAL ECONOMICS

CODE: 15EC/PE/ID14

CREDITS : 4

L T P :4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the ways in which economics forces operate within the industrial sectors
- To assess whether markets are competitive and how to measure the extent of competition in markets

Unit 1

Introduction

(8 hrs.)

- 1.1 Scope and Objectives of Industrial Economics
- 1.2 The simple structure – Conduct – Performance model
- 1.3 Criticisms of the SCP model
- 1.4 Alternative schools of thought

Unit 2

Market Concentration

(12 hrs.)

- 2.1 Nature and measurement of market concentration
- 2.2 Indices of concentration
- 2.3 Inequality measures
- 2.4 Theories of measurement: Deterministic and stochastic approaches

Unit 3

Barriers to Entry

(10 hrs.)

- 3.1 Concepts to barriers to entry by Bains, Stigler
- 3.2 Sources to Barriers to Entry
- 3.3 Limit Pricing Theory
- 3.4 Strategic Entry Deterrence

Unit 4

Vertical Integration Conglomerate Diversification and Mergers(12hrs.)

- 4.1 Conglomerate Diversification: Concepts, measures, determinants and consequences of diversification, mergers, FDI
- 4.2 Vertical integration: Nature and Extent of Vertical integration, theories of vertical integration, monopolistic motives for integration

Unit 5

Technical Progress & Performance

(10 hrs.)

- 5.1 Economics of Research
- 5.2 Market structure and incentive to invent

- 5.3 Concepts by Arrow & Schumpeter
- 5.4 Concepts of Profit Margin
- 5.5 Productivity and Technical Efficiency

BOOK FOR STUDY

Roger. Clark, *Industrial Economics*. New York: Blackwell Publishers, 2013.

BOOKS FOR REFERENCE

P. J. Devine, R.M Jones, N.Lee, W.J Tyson, *An Introduction to Industrial Economics*. Chicago: Minera Series 26. George Allen and Unwin, 2001.

Stephen. Marlin. *Advanced Industrial Economics*. New York: Blackwell Publishers, 2011.

JOURNALS

International Journal of Industrial Organization

Journal of Industrial Economics

WEB RESOURCES

<http://www.kevinhinde.com/EuropeanIndustry/EC455lecture1.pdf>

<https://www.e-elgar.co.uk/PDFs/WebCats/IndustrialeconomicsUK.pdf>

<http://ecommons.library.cornell.edu/handle/1813/3878>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component :

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Problem solving

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 5x 8 = 40 marks (Answer any 5 out of 7 questions in 300 words each)

Section B – 3x 20= 40 marks (Answer any 3 out of 5 questions in 1200 words each)

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A DEGREE: BRANCH III - ECONOMICS

SYLLABUS
(Effective from the academic year 2015 -2016)

MATHEMATICS FOR ECONOMICS

CODE: 15EC/PE/ME14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To learn mathematical methods that has become indispensable for a proper understanding of the current economic literature
- To study mathematical techniques and illustrate with proper economic models

Unit 1

Linear Algebra (10hrs.)

- 1.1 Matrices, Inverse, Simultaneous Linear Equations, Cramer's Rule for Solving System of Linear Equations
- 1.2 Rank of a Matrix, Eigen Values and Vectors – Cayley Hamilton's Theorem
- 1.3 Leontief Input-Output Model, Hawkins –Simon Condition
- 1.4 Open and Closed Model

Unit 2

Differential Calculus (12 Hrs.)

- 2.1 Derivatives – Single Variable and Multi Variable – Partial and Total
- 2.2 Economic Applications, Marginal and Elasticity Concept
- 2.3 Higher Order Derivatives and Young's Theorem
- 2.4 Convex and Concave Functions
- 2.5 Properties of Linear Homogenous Functions, Euler's Theorem

Unit 3

Classical Optimization and Applications (10 Hrs.)

- 3.1 Unconstrained Optimization in Single and Multi-Variable Functions
- 3.2 Constrained Optimization With Equality Constraints, Lagrangian Method
- 3.3 Applications – Utility Maximization, Cost Minimization, Profit –Output Maximization

Unit 4

Mathematical Programming –Linear Optimization (8hrs.)

- 4.1 Introduction to Linear Programming and Graphical Solution of the Diet and Production Problems
- 4.2 Convex Sets and Hyper Planes – Simplex Method of Solution (Two Variables Only)
- 4.3 Formulation of the Dual Programme –Statement of Duality Theorems
- 4.4 Applications from Economics

Unit 5

Dynamic Analysis

(12 Hrs.)

- 5.1 Definite And Indefinite Integrals, Application –Measuring Consumer and Producer Surplus
- 5.2 Difference Equations –First and Second Order and Cobweb Model, Samuelson’s Multiplier Accelerator
- 5.3 Differential Equations –First and Second Order, Harrod-Domar and Solow Model

BOOKS FOR STUDY

Bansal. Anjali. *Mathematical Methods for Economics*, New Delhi: Nath Enterprises, 1995.

Chiang, A.C., & Kevin. Wainwright. *Fundamental Methods of Mathematical Economics*. 4th Ed. New Delhi: McGraw-Hill, International, 2004

Mehta and Madnani. *Mathematics for Economists*, New Delhi: Sultan Chand, 1996.

BOOKS FOR REFERENCE

Allen. R.G.D. *Mathematical Economics*. Madras: English Language Book Society and Macmillan Press, 1973.

Manicavachagom, Pillay T.K., Natarajan T., K.S. Ganapathy. *Algebra*, Volume II, Madras: S. Viswanthan Printed and Publishers, 1997.

Narayanan, S. and Manicavachagam Pillay T.K. *Calculus*, Madras: S. Viswanthan Printers and Publishers, 1995.

Sancheti, D.C and V.K. Kapur, *Business Mathematics*, New Delhi: Sultan Chand, 1981.

Simon, C. and L. Blume, *Mathematics for Economists*, London: Norton, 1994.

Sydsaetar, Knut and Peter Hammond, *Mathematics for Economic Analysis*, Singapore: Pearson Education, 2005.

JOURNALS

Journal of Mathematical Economics

WEB RESOURCES

<http://homepage.ntu.edu.tw/~econman/faculty/cfchou/MathEco1.pdf>

<http://www.railassociation.ir/Download/Article/Books/Basic%20Mathematics%20for%20Economists.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3 x 10 = 30 marks (Answer any 3 out of 5 questions in 300 words each)

Section B – 1 x 20 = 20 marks (Answer any 1 out of 2 questions in 1200 words)

Third Component:

List of evaluation modes:

Seminars

Quiz

Assignments

Problem solving

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A – 5 x 8 = 40 (Answer any 5 questions out of 7 in 300 words)

Section B – 3 x 20 = 60 (Answer any 3 out of 5 questions in 1200 words)

SYLLABUS

(Effective from the academic year 2015 -2016)

ECONOMIC THOUGHT

CODE: 15EC/PI/ET14

CREDITS : 4

OBJECTIVES OF THE COURSE

- To facilitate a better comprehension of the contributions of select Nobel Laureates, Women Economists and Indian Economists to the current economic issues
- To describe the characteristics of competing schools of economic thought and survey the major contributions of the economists

Unit 1

Post Keynesians and New Keynesian

- 1.1 Hicks-Hansen Synthesis
- 1.2 Learner Functional Finance
- 1.3 Samuelson –Multiplier Accelerator Interaction

Unit 2

- 2.1 Tobin – Macro Economic and Financial Economics
- 2.2 Buchanan –Public Choice

Unit 3

Chicago School – New Classicism

- 3.1 Friedman – Consumption, Quantity Theory of Money, Economic liberalism
- 3.2 Stigler – Economics of Information Search
- 3.3 Becker –Theory of Allocation of Time
- 3.4 Lucas and New Classical – Rational Expectations

Unit 4

Nobel Laureates

- 4.1 Jean Tirole – Market Power and Regulation
- 4.2 Robert Shiller – Asset Price
- 4.3 Paul Krugman –Macro Economics and Trade

Unit 5

Contemporary Indian economic thought

- 5.1 AmartyaSen –Welfare
- 5.2 Brahmanandha
- 5.3 A.K Dasgupta – Economic Theory and Planning
- 5.4 Bhagawathi – International Trade- Immiserizing Growth

BOOKS FOR REFERENCE

Brue, Stanley L & Grant Randy. R *The Evolution of Economic Thought*. Ohio: South Western, 2013.

WEB RESOURCES

www.nobelprize.org

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A– 5 x 8 = 40 marks (5 out of 7 questions to be answered in 300 words each)

Section B– 3 x 20=60 marks (3 out of 5 questions to be answered in 1200 words each)

SYLLABUS

(Effective from the academic year 2015 -2016)

FINANCIAL INSTITUTIONS AND MARKETS IN INDIA

CODE: 15EC/PI/FI14

CREDITS : 4

OBJECTIVES OF THE COURSE

- To impart knowledge with respect to the Indian Financial System

Unit 1

Introduction

- 1.1 The Indian Financial Systems: An Overview
- 1.2 Structure and Growth
- 1.3 Functions of the Financial Systems
- 1.4 Indian Financial System Pre and Post Liberalization

Unit 2

Financial Institutions

- 2.1 Commercial Banks: Growth and Role Played –Nationalization – Management of Assets and Liabilities –Lending policies –Recent Reforms in Banking Sector
- 2.2 Development Banks: Overview –Growth and Functions –Source of Funds –Performance of IDBI, ICICI, IFCI, SFC, SIDBI, SIDCs
- 2.3 Non-Banking Financial Institutions: Overview –Growth and Functions – Reforms in NBFI's – Performance of Insurance Companies Investment Banks –Mutual Funds and Pension Funds
- 2.4 Regulatory Mechanism and Statutory Authorities in Financial Markets: RBI and SEBI –Role played by them

Unit 3

Financial Markets

- 3.1 Indian Financial Markets: Structure Role and Growth
- 3.2 Money Market: Definition –Role and Function –Source of Funds – Instruments of the Money Market, Call Money, Treasury Bills, Term Money, Certificate of Deposit, Commercial Papers
- 3.3 Capital Market: Definition –Role and Functions –Source of Funds – Primary Market- Secondary Market

Unit 4

Foreign Exchange Market

- 4.1 Exchange rates – Fixed and Flexible –Determination of Exchange Rates
- 4.2 Foreign Exchange Markets – Cash and Spot Markets –Exchange Rate Quotas
- 4.3 Nature of Forex Markets –Forex Inflow and Outflow –Factors Affecting Forex Market
- 4.4 RBI and Exchange Management

Unit 5

Financial Derivatives

- 5.1 Financial Derivatives –Need for Derivatives –Types of Derivatives
- 5.2 Options Market –Definition –Difference between Future and Option Contracts
- 5.3 Interest Rate Derivative Markets
- 5.4 Foreign Exchange Derivative Markets

BOOKS FOR REFERENCE

Bhole. L.M *Indian Financial Institution and Markets*.New Delhi: Tata McGraw Hill, 2002.

Khan. M.Y. *Indian Financial System*. New Delhi: Tata McGraw Hill,2004.

Meir. Kohn,*Financial Institutions and Market*.New Delhi: Tata McGraw Hill,2003.

Mishkin, Frederic and Stanley G Eakins *Financial Markets and Institution*, New York: Addison Wesley,2003.

Pathak.Bharathi.V ,*The Indian Financial System Markets Institutions and Services*. New Delhi: Pearson Education India, 2007.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A– 5 x 8 = 40 marks (5 out of 7 questions to be answered in 300 words each)

Section B– 3 x 20=60 marks (3 out of 5 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS

(Effective from the academic year 2015 -2016)

BRITISH LITERATURE - I

CODE: 15EL/PC/BL14

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS :65

OBJECTIVES OF THE COURSE

- To develop an analytical and critical approach to select British literary texts from the sixteenth to the nineteenth century
- To foster a deeper and sensitive understanding of representative writers in relation to their social, cultural and political milieu

Unit 1		(20hrs.)
1.1 Edmund Spenser	<i>Amoretti</i> 1 sonnet	
1.2 John Donne	A Valediction: Forbidding Mourning	
1.3 John Webster	<i>The Duchess of Malfi</i>	
1.4 John Milton	<i>Paradise Lost: Book I</i>	
Unit 2		(14hrs.)
2.1 John Dryden	<i>Absalom and Achitophel</i>	
2.2 Alexander Pope	Selection from <i>Essay on Criticism</i>	
2.3 Aphra Behn	<i>The Rover</i>	
Unit 3		(14hrs.)
3.1 William Wordsworth	Ode on Intimations to Immortality from Early Childhood	
3.2 Samuel T Coleridge	Dejection: An Ode	
3.3 John Keats	Ode on a Grecian Urn	
3.4 Thomas De Quincey	On the Knocking at the Gate in <i>Macbeth</i>	
Unit 4		(12hrs.)
4.1 Robert Browning	Fra Lippo Lippi	
4.2 Mathew Arnold	<i>Study of Poetry</i>	
4.3 Emily Bronte	<i>Wuthering Heights</i>	
4.4 Thomas Hardy	<i>Tess of the D'Urbervilles</i>	
Unit	5	
Practical Application Tasks		(5hrs.)

BOOKS FOR REFERENCE

- Bayley, Peter. *Edmund Spenser: Prince of Poets*. London: Hutchinson University Library, 1971. Print.
- Dever, J.W. Tragedy and Style. *Revenge Tragedies New Casebook Series*. Ed. Steve Simkin, New York: Palgrave, 2001. Print.
- Gardner, Helen. *Religion and Literature*. London: Faber and Faber, 1997.
- . *Metaphysical Poets*. New York: Oxford UP, 1997. Print.
- Greenblatt, Stephen. Marlowe and the Will to Absolute Play (Chapter 5), *Renaissance Self-fashioning: From More to Shakespeare*. Chicago and London: Chicago, 1980. Print.
- Hill, Christopher. Introduction, Milton's Christian Doctrine (Part V). *Milton and the English Revolution*. London: Faber and Faber, 1977. Print.
- Leech, Clifford. *Webster: The Duchess of Malfi*. London: Edward Arnold, 1963. Print.
- Loomba, Ania. Women's Division of Experience, *Revenge Tragedies New Casebook Series*. Ed. Simkin, Steve. New York: Palgrave, 2001. Print.
- Martines, Lauro. *Society and History in English Renaissance Verse*. New York: Basil Blackwell, 1985. Print.
- Parry, Graham. *The Seventeenth Century Intellectual and Cultural Context of English Literature 1603-1700*. London: Longman Group UK Ltd, 1989. Print.
- Price, Martin. The Restoration and the Eighteenth Century. *The Restoration and the Eighteenth Century*, London: Oxford UP, 1973. Print.
- Rivers, Isabel. The Making of a 17th Century Poet. *John Milton Introductions*, Ed. John Broadbent. Cambridge: Cambridge UP, 1973. Print.
- Sanders, Wilbur. Providence and History in Elizabethan Thought. *The Dramatist and the Received Ideas: Studies in the Plays of Marlowe and Shakespeare*. Cambridge: Cambridge UP, 1968. Print.
- , History without Morality: Edward II, *The Dramatist and the Received Ideas: Studies in the Plays of Marlowe and Shakespeare*, Cambridge: Cambridge UP, 1968. Print.
- Stearns, J.B. *Marlowe: A Critical Study*. Cambridge UP, 1964. Print.
- Ward, David. *Jonathan Swift: An Introductory Essay*. London: Methuen & Co. Ltd, 1973. Print.

JOURNALS

English Literary Renaissance
Studies in Renaissance
Victorian Literature and Culture

WEB RESOURCES

www.poets.org
www.poetryfoundation.org
www.johnmilton.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A-2 short essays out of 4 of 300 words each 2x10=20 marks	
Section B – 2 long essays out of 4 of 850 words each	2x10=20 marks
Section C – optional (passage analysis)	1x10=10 marks

Third Components:

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100	Duration: 3 Hours
Section A – 4 out of 6 essays of 300 words each	4 x 10 =40 marks
Section B – 3 out of 5 questions essays of 850 words each	3 x 20 =60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

AMERICAN LITERATURE: MODERNISM AND AFTER

CODE: 15EL/PC/AL14

CREDITS : 4

L T P :4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To help students understand American literature as an outcome of its traditions, cultures and politics
- To enable students to appreciate diversities of culture represented in American Literature

Unit 1 Poetry (15hrs.)

1.1 Frost	After Apple Picking
1.2 Stevens	The Idea of Order at Key West
1.3 Ginsberg	Howl
1.4 Lowell	Skunk Hour
1.5 James Merrill	The Water Hyacinth
1.6 Robert Pinsky	Jersey Rain
1.7. Rita Dove	Persephone Abducted
1.8 Langston Hughes	The Weary Blues
1.9 Simon J. Ortiz	A Story of How A Wall Stands

Unit 2 Prose (10 hrs.)

2.1 Anwar F. Accawi	The Telephone
2.2 John McPhee	Silk Parachute

Unit 3 Fiction (15hrs.)

3.1 Faulkner	<i>The Sound and the Fury</i>
3.2 John Barth	Lost in the Funhouse
3.3 Toni Morrison	<i>Beloved</i>
3.4 Louise Erdrich	Windigo Dog

Unit 4 Drama (12hrs.)

4.1. Tennessee Williams	<i>A Streetcar Named Desire</i>
4.2. Tony Kushner	<i>Angels in America</i>

Unit 5 Practical Application Tasks (13hrs.)

BOOKS FOR REFERENCE

Bigsby, C.W.E. *A Critical Introduction to Twentieth Century American Drama*. Cambridge: CUP, 1984. Print.

- Bradbury, Malcolm and Howard Temperley Ed. *Introduction to American Studies*. New York: Longman, 1981. Print.
- Bradley, Scully. *American Tradition In Literature*, 2 vols. New York: W. W. Norton and Co, 1962.
- Ehrlich, Eugene and Carruth. Gorton. *Oxford Illustrated Literary Guide to The United States*. New York: Oxford UP.
- Grice, Helena, Candida Hepworth, Maria Lauret and Martin Padget. *Beginning Ethnic American Literatures*. Manchester: Palgrave, 2001. Print.
- Horton, Rod W. *Background of American Literary Thought*, New York: Prentice Hall, 1982.
- Kenner, Hugh. *Home Made World: The American Modernist Writers*, Bombay: Allied Publications, 1975.
- Millard, Kenneth. *Contemporary American Fiction*. New York: OUP, 2000. Print.
- Mitchell, Angelyn and Danille K. Taylor Ed. *The Cambridge Companion of African American Women's Literature*. Cambridge: CUP, 2009. Print.
- Neville, Mark A. and Herzberg Max J. *Literature in America*, U.S.A: Rand McNold and Co.

JOURNALS

ARIEL: A Review of International English Literature (online)
Modern Fiction Studies

WEBSITES

www.poets.org
www.poetryfoundation.org

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A- 2 short essays out of 4 of 300 words each	2x10=20 marks
Section B - 2 long essays out of 4 of 850 words each	2x10=20 marks
Section C – Optional (passage analysis)	1x10=10 marks

Third Components:

Assignment
 Seminar
 Presentation
 Take Home Test
 Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – 4 out of 6 essays of 300 words each

Section B – 3 out of 5 questions essays of 850 words each

Duration: 3 Hours

(4 x10 =40)

(3 x 20 =60)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS

(Effective from the academic year 2015 – 2016)

LITERATURE AND SUBALTERNITY

CODE :15EL/PC/LS14

CREDITS : 4

L T S: 4 1 0

TOTAL TEACHING HOURS: 65

Objectives

- To enable an understanding of the concept of subalternity
- To enable students to position subaltern identities in texts

OBJECTIVES OF THE COURSE

Unit 1		(20 hrs.)
1.1 Augusto Boal	Aristotle's Coercive System of Tragedy (from <i>Theatre of the Oppressed</i> , 1-50)	
1.2 GayathriSpivak	Can the Subaltern Speak?	
1.3 DipeshChakravarti	Postcoloniality and the Artifice of History	
1.4 Dan Goodley	Introduction: Global Disability Studies	
Unit 2		(10hrs.)
2.1 K.V Thirumalesh	<i>Untouchables</i>	
2.2 Nellie Wong	<i>Their Eyes</i>	
2.3 Donna Kate Rushin	<i>The Bridge Poem</i>	
2.4 AudreLorde	<i>Power</i>	
Unit 3		(17hrs.)
3.1 Mahesh Dattani	<i>On a Muggy Night in Mumbai</i>	
3.2 Dolores Prida	<i>Beautiful Senoritas</i>	
Unit 4		(10hrs.)
4.1 Bama	<i>Sangati</i>	
4.2 Mahasweta Devi	Rudali (Short Story)	
4.3 TemsulaAo	Curfew Man from (<i>These Hills Called Home</i>)	
Unit 5		
Practical Application Tasks		(8hrs.)

BOOKS FOR REFERENCE

Anazaldua, Gloria. *This Bridge Called My Back: Writing by Radical Women of Color*. New York: Kitchen Table: Women of Colour, 1983, Print.

- Christian, Barbara,(1985), *Black Feminist Criticism: Perspectives on Black Women Writers*, Pergamon, New York. Print.
- Fanon, Frantz. *Black Skin, White Mask*, New York: Grove, 1967. Print.
- Goodley, Dan. *Disability Studies: An Interdisciplinary Introduction*. London: Sage, 2011. Print.
- Gramsci, Antonio. *History of the Subaltern Classes, Prison Notebooks Vol. II*, (Ed. & Tr.) Joseph A. Buttigieg, 1996, 24-25. Print.
- Milner, Andrew and Jeff Browitt. *Race and Ethnicity in Black and Latino Cultural Studies: Contemporary Critical Theory*. III Ed. New Delhi: Rawat, 2003. Print.
- Omvedt, Gail. Chapter 11: Sita's Curse and Shambuk's Silence, *Dalit Visions* Chennai: Orient Longman, 2006. Print.
- Spivak, Gayatri Chakrabarti. Subaltern Studies: Deconstructing Historiography Vol IV. (Ed.) Ranajit Guha, *Writings on South Asian History and Society*. Delhi: OUP, 1985, 330-363. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A-2 short essays out of 4 of 300 words each	2x10=20 marks
Section B – 2 long essays out of 4 of 850 words each	2x10=20 marks
Section C – optional (passage analysis)	1x10=10 marks

Third Components:

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100	Duration: 3 hours
Section A – 4 out of 6 essays of 300 words each	4 x 10 = 40 marks
Section B – 3 out of 5 questions essays of 850 words each	3 x 20 = 60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

WOMEN'S WRITING

CODE: 15EL/PC/WW14

CREDITS: 4

L T P : 410

TOTAL TEACHING HOURS :65

OBJECTIVES OF THE COURSE

- To enable students to recognize difference as an essential concept in women's writing
- To help students to appreciate the ways in which women writers revision their identity positions in specific contexts

Unit 1		(17 hrs.)
1.1.Simone de Beauvoir	<i>Introduction:The Second Sex</i>	
1.2. Virginia Woolf	<i>A Room of One's Own (Chapter I &VI)</i>	
1.3 Elaine Showalter	Extract from <i>Woolf and the flight into androgyny</i>	
1.4 Adrienne Rich	<i>When We Dead Awaken: Writing as Revision</i>	
1.5 Toril Moi	Introduction: Sexual/Textual Politics	
Unit 2		(10hrs.)
2.1. Ritu Menon & Kamala Bhasin	Abducted Women, the State Question of Honour from <i>Embodied Violence</i>	
2.2. bell hooks	<i>Black Women: Shaping Feminist Theory</i>	
Unit 3		(13hrs.)
3.1. Mahasweta Devi	Draupadi (Short Story)	
3.2. Maya Angelou	Still I Rise	
	Our Grandmothers	
Unit 4		(12 hrs.)
4.1. Chitra Bannerjee Divakaruni	<i>The Palace of Illusions</i>	
4.2. Laura Esquivel	<i>Malinche</i>	
Unit 5		(13hrs.)
Practical Application Tasks		

BOOKS FOR REFERENCE

Gilbert, Sandra & Susan Gubar. 1979; *Madwoman in the Attic: The Woman Writer and the Nineteenth-Century Literary Imagination*. Yale: Yale Nota Bene, 2000. Print.

James, Joy and T Denean Sharpley-Whiting. Eds. *The Black Feminist Reader*. Malden, Massachusetts: Blackwell, 2000. Print.

Rahman, Momin & Stevi Jackson. *Gender and Sexuality: Sociological Approaches*. Cambridge: Polity Press, 2010. Print.

Rooney, Ellen. Ed. *The Cambridge Companion to Feminist Literary Theory*. Cambridge: Cambridge UP, 2008. Print.

Schneir, Miriam. Ed. *The Vintage Book of Feminism: The Essential Writings of the Contemporary Women's Movement*. London: Vintage, 1995. Print.

Tharu, Susie & K Lalitha. *Women Writing in India*. New Delhi: Oxford UP, 1991. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A-2 short essays out of 4 of 300 words each

2x10=20 marks

Section B – 2 long essays out of 4 of 850 words each

2x10=20 marks

Section C – optional (passage analysis)

1x10=10 marks

Third Components Tests:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatization

Creative Writing

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A – 4 out of 6 essays of 300 words each

4 x 10 = 40 marks

Section B – 3 out of 5 questions essays of 850 words each

3 x 20 = 60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

BRITISH LITERATURE - II

CODE: 15EL/PC/BL24

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS :65

OBJECTIVES OF THE COURSE

- To develop an analytical and critical approach to select British literary texts of the twentieth century
- To introduce students to the complexities of literary creation in the context of the changing social, cultural, political milieu of twentieth century

Unit 1			
Poetry I			(13 hrs.)
1.1 Hopkins	Pied Bauty		
1.2 T.S. Eliot	<i>The Wasteland</i>		
1.3 W.B. Yeats	Sailing to Byzantium		
	Circus Animals' Desertion		
1.4 Philip Larkin	Whitsun Weddings		
1.5 Dylan Thomas	Do Not Go Gentle into That Good Night		
Unit 2			
Poetry II			(10 hrs.)
2.1 Ted Hughes	Pike		
	Apple Tragedy		
2.2 Seamus Heaney	Follower		
	The Tollund Man		
2.3 Carol Ann Duffy	Mrs. Faust		
	Small Female Skull		
2.4 Jo Shapcott	Thetis		
2.5 Jackie Kay	Pride		
Unit 3			
Drama			(13 hrs.)
3.1 Tom Stoppard	<i>Arcadia</i>		
3.2 Martin Crimp	<i>The Country</i>		
Unit 4			
Fiction			(20 hrs.)
4.1 Julian Barnes	<i>A History of the World in 10½ Chapters</i>		
4.2 Kazuo Ishiguro	<i>Remains of the Day</i>		
4.5 Caryl Phillips	<i>The Final Passage</i>		

Unit 5
Practical Application Tasks

(9 hrs.)

BOOKS FOR REFERENCE

Cox, C.B., and Dyson A.E.,(eds.). *The Twentieth Century Mind: History of Ideas And Literature in Britain*. 3 Vols. London: Oxford UP, 1972. Print.

Esslin, Martin. *The Theatre of The Absurd*. London: Eyre Methuen, 1974. Print.

Hutcheon, Linda. *A Poetics of Postmodernism: History, Theory And Fiction*. London: Routledge, 1988. Print.

Lodge, David. *The Modes of Modern Writing*. London: Edward Publishers, 1977. Print.

Morrison, Blake. *The Movement; English Poetry and Fiction of The 1950's*. New York: Oxford UP, 1980. Print.

Thwaite, Anthony. *Poetry Today: A Critical Guide to British Poetry*. England: Longman Group, 1985. Print.

Woods, Tim. *Beginning Postmodernism*. Manchester UP. 1999. Print.

JOURNALS

Wasafiri

Modern Fiction Studies

Boundary 2

WEB RESOURCES

www.poets.org

www.poetryfoundation.org

<https://owl.english.purdue.edu/owl/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A-2 short essays out of 4 of 300 words each

Section B – 2 long essays out of 4 of 850 words each

Section C – Optional (passage analysis)

Duration: 90 mins.

2x10=20 marks

2x10=20 marks

1x10=10 marks

Third Components:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

End Semester Examination

Total Marks: 100

Section A – 4 out of 6 essays of 300 words each

Section B – 3 out of 5 questions essays of 850 words each

Duration: 3 hours

4 x 10 =40 marks

3 x 20 =60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

LINGUISTICS

CODE: 15EL/PC/LG24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To enable students to understand language as a science
- To introduce students to the socio-cultural variables that impact the production of the varieties of English language

Unit 1 (25 hrs.)

- 1.1. Phonology
 - 1.1.1 Speech Mechanisms
 - 1.1.2 Cardinal Vowel Scale
 - 1.1.3 English Vowels, Diphthongs, Consonants
 - 1.1.4 Allophones
 - 1.1.5 Stress, Intonation, Elision, Assimilation
 - 1.1.6 Phonemic Transcription
- 1.2. Morphology
 - 1.2.1 Definition and Classification of Morphemes
 - 1.2.2 Bound, Free, Derivational, Inflectional Morphemes
Empty, Zero Morphemes
 - 1.2.3 Allomorph

Unit 2 (18 hrs.)

- 2.1. Syntax
 - 2.1.1. Sentence Patterns
 - 2.1.2 I.C. Analysis
- 2.2. Introduction to the Three Schools of Grammar
 - 2.2.1 Traditional Grammar
 - 2.2.2 Structural Grammar
 - 2.2.3 Transformational-Generative Grammar

Unit 3 (7 hrs.)

- 3.1.1. Synonymy, Antonymy, Hyponymy
- 3.1.2. Homophony, Homonymy, Polysemy

Unit 4 (10 hrs.)

- 4.1.1 Dialects - Social and Geographical
- 4.1.2 Pidgin, Creole Languages
- 4.1.3 Choosing a Code - Code Choice
Code Switching
Code Mixing

Unit 5**(5 hrs.)**

5.1.1 Langue and Parole

5.1.2 Saussure's Concept of Sign-Sound Image and Concept

BOOKS FOR REFERENCE

Balasubramanian. *A Textbook of English Phonetics for Indian Students*. Madras: Macmillan, 1993. Print.

Crystal, David. *The Cambridge Encyclopedia of the English Language*. Cambridge: Cambridge UP, 2003. Print.

Gimson, A.C. *An Introduction to the Pronunciation of English*. London: Edward Arnold, 1965. Print.

Hudson R.A. *Sociolinguistics*. Cambridge: Cambridge University Press, 2003. Print.

Krishnawamy, N and S.K. Verma. *Modern Linguistics*. Delhi: Oxford UP, 1989. Print.

Leech, Geoffrey. *Semantics: The Study of Meaning. II ed.* Middlesex: Penguin, 1989. Print.

Palmer, Frank. *Grammar*, Second ed. London: Penguin, 1971. Print.

Peirce, C.S. "On Representamen", *Collected Papers*. Vol.II. Eds. Charles Hertschorn and Paul Weiss. Cambridge: Harvard UP, 1931. Print.

Saussure, Ferdinand de. "Nature of the Linguistic Sign." *Course in General Linguistics*. New York: McGraw-Hill, 1959. Print.

Trudgill, Peter and J.K. Chambers. *Dialectology*. Cambridge: Cambridge University Press, 1980. Print.

Wardhaugh, Ronald. *Introduction to Sociolinguistics*, second ed. London: Oxford Blackwell, 1996. Print.

Yule, George. *The Study of Language: An Introduction*. Cambridge: Cambridge UP, 1985. Print.

PATTERN OF EVALUATION**Continuous Assessment:**

Total Marks: 50

Duration: 90 mins.

Section A – 5 marks

Phonemic Transcription of a passage (about 7-8 sentences)
Three-term labels of phonemes in five words

Section B – 10 marks

Long Essays
Analyzing Sentence Pattern
Disambiguate

Section C – 35 marks

Short Notes on any two out of four (2x10=20 marks)
One Essay with Internal Choice (1x15=15 marks)

Third Components:

Assignment

Presentation

Take Home Test

Open Book Test

Quiz

Group Presentation

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A -	Phonemic transcription of a passage (about 7-8 sentences)	10 marks
	Three-term labels of phonemes in five words	5 marks
	Analyzing sentence pattern – five sentences	5 marks
	Disambiguate – five sentences	2x5=10 marks
Section B -	Short notes on any four of six	4x5=20 marks
Section C -	Five essays with internal choice	5x10=50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

CONTEMPORARY CRITICAL THEORY II

CODE: 11EL/PC/CT34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS:65

OBJECTIVES OF THE COURSE

- To help students to learn the links between theory and text
- To enable students to understand the theories in the context of literature, culture and media

Unit 1		(10 hrs.)
1.1 Judith Butler	From Interiority to Gender Performatives	
1.2 Vandana Shiva	Women in Nature (from <i>Staying Alive</i>)	
Unit 2		(10hrs.)
2.1 Stephen Greenblatt	Introduction to the Power of Forms in the English Renaissance	
2.2 Stuart Hall	Cultural Studies and its Theoretical Legacies	
2.3 Hayden White	Historiography- Art or Science	
Unit 3		(20hrs.)
3.1 Raymond Williams	Sociology of Culture	
3.2 Juliet Mitchell	Femininity, Narrative & Psychoanalysis	
Unit 4		(20hrs.)
4.1 Michel Foucault	Panopticism	
4.2 Pierre Bourdieu	The Forms of Capital	
Unit 5		
Practical Application Tasks (Suggested Texts)		(5hrs.)
5.1 George Orwell	<i>1984</i>	
5.2 Oodgeroo Noonuccal	No More Boomerang	
5.3 Film	<i>The Hours</i>	

BOOKS FOR REFERENCE

- Green, Keith and Jill Le Brian. *Critical Theory and Practice :A Course Book*. London: Routledge, 1996. Print.
- Guerin, Wilfred, L., et al. *A Handbook of Critical Approaches to Literature*. Fourth Edition, New York: Oxford UP, 1992. Print.
- Jefferson, Ann and David Robey eds. *Modern Literary Theory. A Comparative Introduction*. London: Batsford, 1986. Print.
- Ryan, Michael. *Literary Theory: A Practical Introduction*. Oxford: Blackwell, 1999.
- Schmiz, Thomas, A. *Modern Literary Theory and Ancient Texts: An Introduction*. Oxford: Blackwell, 2007. Print.
- Selden, Raman. *A Readers Guide to Contemporary Literary Theory*. Wheatsheaf: Harvester, 1989. Print.
- Wolfreys, Julian, ed. *Modern North American Criticism and Theory: A Critical Guide*. Edinburgh: Edinburgh UP, 2006. Print.
- -, ed. *Modern European Criticism and Theory: A Critical Guide*. Edinburgh: Edinburgh UP, 2006. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A-2 short essays out of 4 of 300 words each	2x10=20 marks
Section B – 2 long essays out of 4 of 850 words each	2x10=20 marks
Section C – optional (passage analysis)	1x10=10 marks

Third Components:

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation

End Semester Examination

Total Marks: 100	Duration: 3 hours
Section A – 4 out of 6 essays of 500 words each	4 x 10 =40 marks
Section B – 3 out of 5 questions essays of 1000 words each	3 x 20 =60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

SOFT SKILLS

CODE: 15EL/PK/SS22

CREDITS: 2

L T P: 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVE OF THE COURSE

- To empower and create opportunities for self development.
- To instil confidence and face challenges.

Unit 1

Behavioural Traits (6 Hrs.)

- 1.1 Self Awareness
- 1.2 Communication Skills –Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and Mannerisms
- 1.5 Experiential Learning –Based on activities

Unit 2

Team Work (5 hrs.)

- 2.1. Interpersonal Skills
- 2.2. People Management
- 2.3. Creative Thinking
- 2.4. Critical Thinking
- 2.5. Experiential Learning – Based on activities

Unit 3

Time Management (5 hrs.)

- 3.1. Importance of time management
- 3.2. Planning and Prioritizing
- 3.3. Organizing skills
- 3.4. Action Plan
- 3.5. Experiential Learning – Based on activities

Unit 4

Conflict Resolution (5 hrs.)

- 4.1. Reasons for conflict
- 4.2. Consequences of conflict
- 4.3. Managing emotions
- 4.4. Methods of resolving conflicts
- 4.5. Experiential Learning – Based on activities

Unit 5

Career Mapping

(5 hrs.)

- 5.1. Goal Setting and Decision Making
- 5.2. Career Planning
- 5.3. Resume Writing
- 5.4. Handling Interviews
- 5.5. Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv. *You Can Win*. New Delhi: Macmillan India, 2002.

Mishra, Rajiv. K. *Personality Development: Transform Yourself*. New Delhi: Rupa 2004.

Newstorm, John. W. and Scannell, Edward. E. *Games Trainers Play: Experiential Learning*. New Delhi: Tata McGraw Hill, 1980.

PATTERN OF EVALUATION

Internal Assessment:

Quiz

Group Presentation

Assignment

NO END SEMESTER EXAMINATION

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

POSTCOLONIAL STUDIES

CODE: 15EL/PC/PC34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the students to some key theoretical formulations in the field
- To help develop an awareness of issues - social, political, cultural and economic-relating to the experience of colonialism and after
- To encourage dialogue on conditions of marginality and plurality

Unit 1

Essays

(20hrs.)

- | | |
|-----------------------|---|
| 1.1. Edward Said | Introduction from <i>Orientalism</i> |
| 1.2 Robert J.C. Young | 1. Colonialism and the Politics of Postcolonial Critique
2. Postcolonialism
from <i>Postcolonialism: An Historical Introduction</i> |
| 1.3 Stephen Slemon | Postcolonial Critical Theories
from <i>Postcolonialism and its Discourses</i> ed. Gregory Castle |

Unit 2

Fiction

(20 hrs.)

- | | |
|-------------------------|--|
| 2.1 Joseph Conrad | <i>Heart of Darkness</i> |
| 2.2. Nadine Gordimer | The Train from Rhodesia (from <i>The Harper Anthology of Fiction</i>) |
| 2.3. Joy Kogawa | Obasan (from <i>The Harper Anthology of Fiction</i>) |
| 2.4. Witi Ihimaera | The Whale (from <i>The Harper Anthology of Fiction</i>) |
| 2.5. Chimamanda Adichie | <i>Americanah</i> |

Unit 3

Poetry

(10 hrs.)

- | | |
|--------------------|------------------------|
| 3.1. Lisa Bellear | Women's Liberation |
| 3.2. Judith Wright | At Cooloola |
| 3.3. Derek Walcott | Ruins of a Great House |
| 3.4. Gabriel Okara | Piano and Drums |

Unit 4

Drama

(10 hrs.)

- | | |
|-------------------|--------------------------------------|
| 4.1. Wole Soyinka | <i>Death and the King's Horseman</i> |
| 4.2 Louis Nowra | <i>Radiance</i> |

Background Reading

Ashcroft et al. *The Empire Writes Back*

PadminiMongia, Ed. *Contemporary Post-Colonial Theory*

Ashcroft et al. Ed. *The Post-Colonial Studies Reader*

Unit 5

Practical Application Tasks

(5 hrs.)

BOOKS FOR REFERENCE

Barker, Francis et al. *Colonial Discourse, Post Colonial Theory*. New York: Manchester UP, 1994. Print.

Bayard, Caroline. *New Poetics in Canada and Quebec : From Concertism to Post-Modernism*. London: University of Toronto Press, 1989. Print.

Bennett, Bruce. *Sense of Exile*. Western Australia: Centre for Studies in Australian Literature, 1988. Print.

Irvine, Lorna L. *Sub/Version : Canadian Fiction by Women*. Toronto: ECW Press, 1986. Print.

Juneja, Om P. *The Post Colonial Novel - Narratives of Colonial Consciousness*. New Delhi: Creation, 1995. Print.

King, Bruce. *New National and Post-colonial Literatures*. New York: Clarendon Press, 1996. Print.

Kudchedkar, Shirin and Jameela Begum, eds. *Canadian Voices*. New Delhi: Pencraft, 1996. Print.

Nkosi, Lewis. *Tasks and Masks: Themes and Styles of African Literature*. London: Longman, 1981. Print.

Pandey, Sudhakar. *Perspectives on Canadian Fiction*. New Delhi: Prestige Books, 1994. Print.

Schwarz, Henry and Sangeeta Ray. *A Companion to Postcolonial Studies*. Oxford: Blackwell, 2000. Print.

Soyinka, Wole. *Art Dialogue and Outrage: Essays on Literature and Culture*. London: Methuen, 1993. Print.

Walder, Dennis. *Post-Colonial Literature in English, History, Language and Theory*. Oxford: Blackwell, 1998. Print.

Young, Robert J.C. *Postcolonialism: An Historical Introduction*. Oxford: Blackwell, 2001. Print.

JOURNALS

Journal of Commonwealth Literature

ARIEL: A Review of International English Literature

Wasafiri

Postcolonial Studies

WEB RESOURCES

http://www.mohamedrabeea.com/books/book1_3985.pdf

<http://www.udel.edu/ArtHistory/ARTH435/Ashcroft.pdf>

<http://faculty.ksu.edu.sa/Nugali/English%20461/Postcolonialism.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A-2 short essays out of 4 of 300 words each

Section B – 2 long essays out of 4 of 850 words each

Section C – optional (passage analysis)

Duration: 90 mins.

2x10=20 marks

2x10=20 marks

1x10=10 marks

Third Components:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – 4 out of 6 essays of 500 words each

Section B – 3 out of 5 questions essays of 1000 words each

Duration: 3 hours

4 x 10 =40 marks

3 x 20 =60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS

(Effective from the academic year 2015 -2016)

INDIAN LITERATURE IN TRANSLATION

CODE: 15 EL/PC/IL34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To familiarise students with the variety and range of literature written in the regional languages that are available in translation
- To discuss issues regarding tradition and modernity
- To see the relationship between literature and culture

Unit 1

Classical Period

(20 hrs.)

1.1 Bhasa

Urubhangam (from *The Shattered Thigh and Other Plays*, trans. AN DHaksar, Penguin Classics)

1.2 Buddha

The Rod, Happiness (from *Dhammpada*, trans. Valerie Roebuck, Penguin Classics)

1.3 Paripadal

Verse X 'They offer the river liquor'
(from *The River Speaks* trans. Muthukumar, Penguin Classics)

Unit2

Medieval Period

(15hrs.)

2.1 Amir Khusro

Verses 33, 40, 49, 65, 69 (from *In the Bazaar of Love*, trans. Paul Losensky and Sunil Sharma, Penguin Books)

2.2 DaraShikoh

from *Majam-Ul-Bahrain (The Mingling of the Two Oceans)* I. Invocation, (pg 37-38) IV. Discourse on the Attributes of God, the Most High (pg 43-44) V. Discourse on the Soul (pg 44-45)

2.3 Krishnadevaraya

I.11 – I. 18 (from *The Giver of the Worn Garland Amuktamalyada*, trans. Srinivas Reddy, Penguin Classics)

2.4 LalDed

Vakhs: 2, 6, 11, 13, 53-54, 104, 133
(from *I, Lalla* trans. Ranjit Hoskote, Penguin Books)

Unit3

Early Modern Writing

(10hrs.)

3.1 Ghalib

Ghalib's Persian Verse: 16, 130, Urdu verse: 85, 124, 126 (from *Oxford India Ghalib: Life, Letters and Ghazals* Ed. Russel Russell)

3.2 Tagore

Choker Bali (trans. Sreejata Guha, Penguin Classics)

3.3 Premchand

Wife into Husband (short story from "Widows, Wives and Other Heroines" *Oxford India Premchand*)

Unit4

Contemporary Writing

(15hrs.)

4.1. Poems from the North-East

4.1.1 Niranjana Chakma

The Words will be Uttered Boldly
For Sale

4.1.2 Paul Lyngdoh

Poison Arrow

4.1.3 Kunjarani Longjam Chanu

Poems

4.1.4 Prem Narayan Nath

(from *Anthology of Contemporary Poetry from the Northeast* ed. Kynpham Sing Nongkynrih & Robin S Ngangom)

4.2. S. Ramakrishnan

Aravaan (from *Four Tamil Plays*, trans. Padma Mackertich, Orient Black Swan)
from *A Word with you, World* (The college students' union elections . . . and they were abashed, pg 120-122, Perhaps writers didn't need caste labels, . . . he had found me a hose, pg 246-248, trans. S.R. Ramakrishna, Navayana)

4.3. Siddalingaiah

The Witness (from *Katha Short Stories* Vol.9)

4.4. Vibha Rani

To My Daughter (from *Modern Indian Poetry*, Ed. A.K. Ramanujan and Vinay Dharwadker)

4.5. Balamani Amma

Unit5

Practical Application Tasks

(5 hrs.)

BOOKS FOR REFERENCE

Hoskote, Ranjit. Introduction. *I, Lalla*. New Delhi: Penguin Books, 2013. Print.

Muthukumar V.N. Introduction. *The River Speaks: The Vaiyai Poems from the Paripatal*. New Delhi: Penguin Books, 2012. Print.

Ramakrishnan E.V. *Locating Indian Literature*. Hyderabad: Orient Black Swan, 2011. Print.

Reddy, Srinivas. trans. Introduction. *Giver of the Worn Garland:*

Krishnadevaraya's Amuktamalyada. New Delhi: Penguin Publishers, 2010. Print.

JOURNALS

KavyaBharati

Indian Literature

The Little Magazine

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Section A-2 short essays out of 4 of 300 words each
Section B – 2 long essays out of 4 of 850 words each
Section C – optional (passage analysis)

Duration: 90 mins.
2x10=20 marks
2x10=20 marks
1x10=10 marks

Third Components:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Quiz

Panel Discussion

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – 3 out of 5 short essays of 500 words each
Section B – 2 out of 4 long essays of 1000 words each
Section C – passage analysis of 600-750 words

Duration: 3 hours
3 x10 =30 marks
2 x 25 =50 marks
1x20=20 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

CONTEMPORARY CRITICAL THEORY II

CODE: 11EL/PC/CT34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS:65

OBJECTIVES OF THE COURSE

- To help students to learn the links between theory and text
- To enable students to understand the theories in the context of literature, culture and media

Unit 1		(10 hrs.)
1.1 Judith Butler	From Interiority to Gender Performatives	
1.2 Vandana Shiva	Women in Nature (from <i>Staying Alive</i>)	
Unit 2		(10hrs.)
2.1 Stephen Greenblatt	Introduction to the Power of Forms in the English Renaissance	
2.2 Stuart Hall	Cultural Studies and its Theoretical Legacies	
2.3 Hayden White	Historiography- Art or Science	
Unit 3		(20hrs.)
3.1 Raymond Williams	Sociology of Culture	
3.2 Juliet Mitchell	Femininity, Narrative & Psychoanalysis	
Unit 4		(20hrs.)
4.1 Michel Foucault	Panopticism	
4.2 Pierre Bourdieu	The Forms of Capital	
Unit 5		
Practical Application Tasks (Suggested Texts)		(5hrs.)
5.1 George Orwell	<i>1984</i>	
5.2 Oodgeroo Noonuccal	No More Boomerang	
5.3 Film	<i>The Hours</i>	

BOOKS FOR REFERENCE

- Green, Keith and Jill Le Brian. *Critical Theory and Practice :A Course Book*. London: Routledge, 1996. Print.
- Guerin, Wilfred, L., et al. *A Handbook of Critical Approaches to Literature*. Fourth Edition, New York: Oxford UP, 1992. Print.
- Jefferson, Ann and David Robey eds. *Modern Literary Theory. A Comparative Introduction*. London: Batsford, 1986. Print.
- Ryan, Michael. *Literary Theory: A Practical Introduction*. Oxford: Blackwell, 1999.
- Schmiz, Thomas, A. *Modern Literary Theory and Ancient Texts: An Introduction*. Oxford: Blackwell, 2007. Print.
- Selden, Raman. *A Readers Guide to Contemporary Literary Theory*. Wheatsheaf: Harvester, 1989. Print.
- Wolfreys, Julian, ed. *Modern North American Criticism and Theory: A Critical Guide*. Edinburgh: Edinburgh UP, 2006. Print.
- -, ed. *Modern European Criticism and Theory: A Critical Guide*. Edinburgh: Edinburgh UP, 2006. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A-2 short essays out of 4 of 300 words each	2x10=20 marks
Section B – 2 long essays out of 4 of 850 words each	2x10=20 marks
Section C – optional (passage analysis)	1x10=10 marks

Third Components:

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation

End Semester Examination

Total Marks: 100	Duration: 3 hours
Section A – 4 out of 6 essays of 500 words each	4 x 10 =40 marks
Section B – 3 out of 5 questions essays of 1000 words each	3 x 20 =60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

MODERN INDIAN LITERATURE IN ENGLISH

CODE: 15EL/PC/ML44

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS :65

OBJECTIVES OF THE COURSE

- To foster an understanding and appreciation of Indian literature in English, focusing primarily on Post Independence literature
- To enable the student to identify a sensibility that is uniquely Indian, through a study of texts representative of the major genres

Unit 1

Poetry

(10 hrs.)

- 1.1 Nissim Ezekiel
- 1.2 A K Ramanujan
- 1.3 Arun Kolatkar
- 1.4 Kamala Das
- 1.5 Agha Shahid Ali

Unit 2

Contemporary Poetry

(10 hrs.)

- 2.1 Imtiaz Dharker
- 2.2 Ranjit Hoskote
- 2.3 Rukmani Bhaya Nayar
- 2.4 Jeet Thayil
- 2.5 Vikram Seth

(from *Sixty Indian Poets* Ed. Jeet Thayil, Penguin)

Unit 3

Drama

(17 hrs.)

- 3.1 Poile Sengupta
- 3.2 Mahesh Dattani

So Said Shakuni, Thus Spake Shurpanaka
Final Solutions

Unit 4

Fiction

(20hrs.)

- 4.1 Salman Rushdie
- 4.2 Shashi Deshpande
- 4.3 Keki Daruwalla

Midnight's Children
Small Remedies
For Pepper and Christ

Unit 5

Practical Application Tasks

(8 hrs.)

BOOKS FOR REFERENCE

D'souza, Eunice. *Talking Poems: Conversations with Poets*. New Delhi: OUP, 1999. Print.

Kalinnikova, Elena J. *Indian-English Literature a Perspective*. Ghaziabad: Vimal Prakashan, 1982. Print.

Karnani, Chetan. *Eminent Indian English Writers*. Jaipur: Rawat, 2001. Print.

Khair, Tabish. *Babu Fictions: Alienation in Contemporary Indian English Novels*. New Delhi: Oxford UP, 2001. Print.

King, Bruce. Rev.ed. *Modern Indian Poetry in English*. New Delhi: Oxford UP, 1998. Print.

Mukherjee, Meenakshi. *The Twice-Born Fiction: Themes and Techniques of the Indian Novel in English*. New Delhi: Heinemann, 1971. Print.

---. *Midnight's Children: A Book of Readings*. New Delhi: Pencraft, 1999. Print.

Naik, M.K. *A History of Indian English Literature*. New Delhi: Sahitya Akademi, 1982. Print.

---. *The Ironic Vision: A Study of the Fiction of R K Narayan*. New Delhi: Prestige Books, 1983.. Print.

---.ed. *Aspects of Indian Writing in English*. Madras: New Delhi Macmillan, 1980. Print.

Trivedi, Harish. *Colonial Transactions*. New York, Manchester: Ohio Press, 1995. Print.

JOURNALS

Indian Literature-Sahitya Akademi

Asian Journal of English Studies

Journal of Indian Writing in English

Asian Quarterly: An International Journal of Contemporary Issues (AQ)

WEB RESOURCES

www.worldliteraturetoday.org

www.caravanmagazine.in

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A-2 short essays out of 4 of 300 words each

2x10=20 marks

Section B – 2 long essays out of 4 of 850 words each

2x10=20 marks

Section C – optional (passage analysis)

1x10=10 marks

Third Components:

Assignment

Seminar

Presentation

Take Home Test

Open Book Test

Scheduled Class Work – Passage Analysis etc

Group Presentation

Role-Play

Dramatisation

Creative Writing

End Semester Examination

Total Marks: 100

Section A – 4 out of 6 essays of 500 words each

Section B – 3 out of 5 questions essays of 1000 words each

Duration: 3 hours

4 x 10 =40 marks

3 x 20 =60 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

LITERATURE AND MYSTICISM

CODE: 15EL/PC/LM44

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To foster an appreciation of the myriad ways in which mystical traditions have interfaced with literature across traditions.
- To train students to appreciate and critique literature that is embedded in various religious and mystical traditions

Unit 1 (15 hrs.)

1.1 The Holy Bible	
1.1.1 Psalms	8, 42
1.1.2 Song of Solomon	Chapters 2 and 3
1.3 St. Francis of Assisi	Canticle of Brother Sun
1.4 St. John of the Cross	Stanzas of the Soul that Suffers with Longing to See God
1.5 John Donne	Batter my heart, three person'd God
1.6 George Herbert	Collar
1.7 G M Hopkins	Windhover
1.8 Iyesubiran	Pillaithamizh 63(from <i>Extraordinary Child</i> p 175)

Unit 2 (15hrs.)

2.1 IlangoAtikal	from <i>Silappadikara. Madurai Canto songs 35-37</i> (from <i>Tale of the Anklet</i> trans. R Parthasarathy)
2.2 Periyazhvar	God Child(from <i>Extraordinary Child</i>)
2.3 Andal	The Song to the Kuyil (from <i>The Secret Garland</i> p 159)
2.4 Sundarar	O madman... (from <i>Eating God</i> p 100)
2.5Mahadevi Akka	No God This Man
2.6 Rajai	The man of the house ... (from <i>Eating God</i> , p159)
2.7 Kamalakanta Bhattacharya	Who is this ... (from <i>Singing to the Goddess</i> . p 32)

Unit 3 (15hrs.)

3.1 Kabir	<i>Where are You Searching for Me Friend?</i> (from Sacred Songs of India)
3.1.1. Documentary on Kabir by ShabnamVirmani – not for testing	
3.2 Jalal-ud-din Rumi	Reed Flute's Song

	(From The Essential Rumi translated by Coleman Barks with John Moyne)	
3.3 Omar Khayyam	Book of Pots from <i>The Rubaiyat of Omar Khayyam</i>)	
3.4 Rabiya	If I adore You ...	
	Eyes are at rest... (http://www.poemhunter.com/poem/)	
3.5 Guru Nanak	It is the month of Chet... (from <i>Eating God</i> p 10)	
Unit 4		(15 hrs.)
4.1 Denise Levertov	Against Intrusion (from <i>Life Around Us</i> , p 72)	
4.2 Emily Dickinson	By Intuition mighty things..	
4.3 Kahlil Gibran	Prayer (from <i>Prophet</i> p. 42-43)	
	Religion (from <i>Prophet</i> p. 49-50)	
Unit 5		(5 hrs.)
Practical Application Tasks		

BOOKS FOR REFERENCE

- James, William. *The Varieties of Religious Experience*. New York: Modern Library, 1902. Print.
- Nandakumar, Prema. *Goda's Garland of Devotion*. Madras: Samata Books, 1989. Print.
- Sharda, S.R. *Sufi Thought*. New Delhi: Munshiram Manoharlal Publishers, 1998. Print.
- Sivaramakrishna, M and Sumita Roy. *Poet Saints of India*. New Delhi: Sterling Publishers, 1996. Print.
- Vendler, Helen. *The Poetry of George Herbert*. Harvard University Press, 1996. Print.

JOURNALS

- Bhakti Studies*
Renascence

WEB RESOURCES

- www.innerexplorations.com
www.sacred-texts.com/isl/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50	Duration: 90 mins.
Section A-2 short essays out of 4 of 300 words each	2x10=20 marks
Section B – 2 long essays out of 4 of 850 words each	2x10=20 marks
Section C – optional (passage analysis)	1x10=10 marks

Third Components:

- Assignment
Seminar
Presentation
Take Home Test
Open Book Test

Scheduled Class Work – Passage Analysis etc
Group Presentation

End Semester Examination

Total Marks: 100

Section A – 3 out of 5 short essays of 500 words each

Section B – 2 out of 4 long essays of 1000 words each

Section C – passage analysis of 600-750 words

Duration: 3 hours

3 x 10 = 30 marks

2 x 25 = 50 marks

1 x 20 = 20 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

SHAKESPEARE

CODE: 15EL/PC/SH44

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS :65

OBJECTIVES OF THE COURSE

- To enable students to understand and appreciate Shakespeare and his craft
- To enable students to interpret Shakespeare's texts in contemporary contexts
- To help students engage critically with performance of Shakespearean texts

Unit 1		(20hrs.)
1.1 Hamlet		
	(for close reading)	
Unit 2		(20hrs.)
2.1 A Midsummer Night's Dream		
	(for close reading)	
Unit 3		(15hrs.)
3.1 Henry V		
3.2 Henry V Film Version Directed by Laurence Olivier		
3.3 Henry V Film Directed by Kenneth Branagh (1989)		
3.4 Taking on Shakespeare: Kenneth Branagh's "Henry V" - Peter Donaldson, Shakespeare Quarterly, Vol.42, No.1 (Spring 1991) 60-71		
Unit 4		(5 hrs.)
4.1 Sonnets: V, VI, XVIII, XLVI, LIII, LX, XCIX, CXVI, CXXIX, CXXX		
Unit 5		(5 hrs.)
Practical Application Tasks		
5.1 Analysis of Plays Not Prescribed on the Syllabus		
5.2 Analysis of Movie/Stage Versions, Adaptations, Retellings of Shakespeare's Plays		

BOOKS FOR REFERENCE

- Bernard, Mc Elroy. *Shakespeare's Mature Tragedies*. New Jersey: Princeton UP, 1976. Print.
- Bloom, Harold. *Shakespeare: The Invention of the Human*. London: Fourth Estate, 1999. Print.
- Brian, Vickers. *Appropriating Shakespeare: Contemporary Critical Quarrels*. London: Yale UP & New Haven, 1993. Print.
- Campbell, Lily B. *Shakespeare's Histories: Mirror of Elizabethan Policy*. London: Methuen, 1973. Print.
- Charlton, H.B. *Shakespearean Comedy*. London: Methuen, 1945. Print.

Coghill, Nevill. *Shakespeare's Professional Skills*. Cambridge. Cambridge UP, 1967. Print.

Dieter, Mehl. *Shakespeare's Tragedies: An Introduction*. New York: Cambridge UP, 1986. Print.

Dollimore, Jonathan and Allan Sinfield. *Political Shakespeare: New Essays in Cultural Materialism*. Ed. Manchester: Manchester UP, 1985. Print.

Foakes, R. *Hamlet Versus Lear: Cultural Politics and Shakespeare's Art*. Cambridge: np, nd. Print.

Fraser, Russell. *Shakespeare: The Later Years*. Cambridge: Columbia UP, 1976. Print.

Kott, Jan. *Shakespeare Our Contemporary*. London: Methuen, 1967. Print.

Leggatt, Alexander. *Shakespeare's Comedy of Love*. London: Methuen, 1974. Print.

Long, Michael. *The Unnatural Scene: A Study in Shakespearean Tragedy*. London: Methuen, 1976. Print.

Murphy, Andrew. Ed. *The Renaissance Text*. UK: Manchester UP. 2000. Print.

Smith, Emma. Ed. *Shakespeare's Tragedies*. U.K: Blackwell Publishing Ltd., 2004. Print.

Tillyard, E M W. *Shakespeare's History Plays*. London: Chatto & Windus, 1956. Print.

JOURNALS

Shakespeare Survey

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50		Duration: 90 mins.
Section A-Passage analysis from Units 1 and 2	20 marks	
Section B – essay from Units 1 and 2		15 marks
Section C – essay from Units 3 and 4		15 marks

Third Components:

Assignment
 Seminar
 Presentation
 Take Home Test
 Open Book Test
 Scheduled Class Work – Passage Analysis
 Quiz
 Panel Discussion
 Group Presentation
 Role-Play
 Dramatisation

End Semester Examination

Total Marks: 100

Duration: 3 hours

- | | | |
|-------------|--|-----------------|
| Section A – | One essay based on critical analysis and interpretation of the given passage from Unit 1 and 2 (Internal Choice) | 1x25= 25 marks |
| Section B – | one out of two essays of 1000 words each from Units 1 and 2 | 1x 25 =25 marks |
| Section C- | Two out of four essays of 1000 words each from Unit 3 and 4 | 2x25=50 marks |

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

DISSERTATION

CODE: 15EL/PC/DS45

CREDITS:5
L T S:024
TOTAL HOURS:65

OBJECTIVE OF THE COURSE

- To provide students with skills in research and writing

Description: Analysis/argument in the form of an extended research paper on a topic or aspect of a topic following the MLA (Seventh Edition) documentation and citation style.

Length : Around 6000-9000 words/25-35 pages, organised in 4-5 chapters

Purpose : To demonstrate a student's capability and skill

- a) In Undertaking Independent, Original Work at the Postgraduate Level
- b) In Preparing and Writing a Sustained and Logically Structured Argument in Clear Prose
- c) In Referencing and Documentation
- d) In Presentation

Scope : Students could work on

- a) An Author/Authors
- b) A Particular Theme or Issue in the Context of a Literary Work
- c) Application of a given Theoretical Approach to a Particular Text/Group of Texts

The above entails extensive reading of primary and secondary texts.
(To be done in consultation with the supervisor)

Citation and documentation : MLA Handbook, 7th Edition to be followed.

Requirement: An abstract of 250-300 words

1. A Clear Thesis Statement
2. Works Cited – a Minimum of 5 Secondary Sources including at least 1 article
3. Documentation and Bibliography using MLA (Seventh Edition) format
4. Drafting and Revising Process to be followed – with a percentage of the marks to be allotted to drafts as given below:

PATTERN OF EVALUATION

Total marks: 100 marks

Internal Evaluation

Annotated Bibliography

15marks

Draft 1

10 marks

Final Dissertation

75marks

External Evaluation

100 marks

(Final Dissertation)

Dissertation

75marks

Viva Voce

25marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS

(Effective from the academic year 2015 – 2016)

NEW FICTION AND THE CONTEMPORARY WORLD

CODE: 15EL/PE/NF14

CREDITS: 4

L T S: 40 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to read, analyse and assess twenty first century fiction in the light of global, national and other topical issues
- To encourage them to engage with these issues in ways that will bring them to a deeper understanding and awareness of these in relation to their lives

Course Content

Two award winning novels of the year / previous year to be selected by the course teacher and students. (To select, if possible, one novel in English by an Indian author)

Unit 1		
	Introduction to Fiction	(6 hrs.)
	1.1 The Novel	
	1.2 The Short story	
Unit 2		
	Introduction to the Context/ Text	(6 hrs.)
	2.1 Political and Economic Background	
	2.2 Cultural, Literary and Social Background	
Unit 3		
	Novel 1	(15hrs.)
Unit 4		
	Novel 2	(15hrs.)
Unit 5		
	Practical Application Tasks	(10 hrs.)

BOOKS FOR REFERENCE

Easthope, Antony. *Literary into Cultural Studies*. London: Routledge, 1991. Print.

Walder, Dennis. Ed. *Literature in the Modern World: Critical Essays and Documents*. (1990).

Oxford: Oxford UP, (2nd Rev. ed.) 2004. Print.

Evaluation

One oral presentation

25 marks

One take-home test

25 marks

No End-semester Examination

One term paper (2000 words)

50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

ENGLISH LANGUAGE TEACHING – II

CODE: 15EL/PE/ET44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint students with the planning and the designing of syllabi for the teaching of English as Second Language
- To help students gain an understanding of the principles of language testing

Unit 1		
Syllabus		(15 hrs.)
1.1. Definition of Curriculum and Syllabus		
1.2 Pre-determined and Emergent Syllabus		
1.2.1. Structural Syllabus		
1.2.2 Functional Syllabus		
1.2.3 Communicative Syllabus		
1.2.4 Task-based Syllabus		
Unit 2		
Testing		(10 hrs.)
2.1. Validity and Reliability in Testing		
2.2. Types of Tests		
2.3. Formative and Summative Testing		
Unit 3		
Evaluation of Materials		(8 hrs.)
Unit 4		
Evaluation of Methodology		(7 hrs.)
Unit 5		
Practical Teaching		(12 hrs.)
Teaching Bridge Course students (One hour per week)		

BOOKS FOR REFERENCE

Hughes, Arthur. *Testing for Language Teachers*. Cambridge: Cambridge UP, 1989. Print.

Johnson, Robert Keith. *The Second Language Curriculum*. Cambridge: Cambridge UP, Cambridge, 1987. Print.

Nunan, D. *Syllabus Design*. Oxford: OUP, 1980. Print.

Rea-Dickens, Pauline and Germaine, Kevin. *Evaluation*. Oxford: Oxford UP, 1992. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – short essays

Section B – long essays

Section C – optional (passage analysis)

Materials preparation and teaching the Bridge Course students

25 marks

End-semester Evaluation

Mini-project (2500 words)

50 marks

No End-semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

ENGLISH LANGUAGE TEACHING – I

CODE: 15EL/PE/ET14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint the students with the psychology of language learning
- To enable students to acquire a knowledge of the methods and approaches in language teaching
- To help students prepare materials for teaching the four skills of language

Note: Enrolment subject to screening test

Unit 1	Introduction	(2 hrs.)
	Difference Between Language Acquisition And Language Learning – L1 And L2.	
Unit 2	Psychology of Learning	(15 hrs.)
	2.1 Behaviorism	
	2.2 Cognitivism	
	2.3 Humanism	
Unit 3	Approaches and Methods of Teaching English	(20 hrs.)
	3.1 Grammar Translation Methods	
	3.2 Situational Method	
	3.3 Audiolingual Method	
	3.4 Communicative Approach	
	3.5 Use of Technology in Teaching of English (Using the Language Lab)	
Unit 4	Materials Design	(5 hrs.)
	4.1 Needs Analysis	
	4.2 Defining the Objectives	
	4.3 Preparation of Materials to Teach the Four Language Skills	
Unit 5	Practical Application Tasks	(10 hrs.)
	5.1 Preparation of Tasks to Teach the Four Skills of Language	
	5.2 Teaching Practice	

BOOKS FOR REFERENCE

Hutchinson, Tom and Alan Waters. *English for Specific Purposes: A Learner Centred Approach*.

Cambridge: Cambridge UP, 1987. Print.

Krashen, Stephen D. *Second Language Acquisition and Second Language Learning*, Oxford:

Pergamon Press, 1981. Print.

Lefrançois, Guy R. *Psychology for Teaching*. California: Wordsworth Publishing Co., 1975.

Print.

Prabhu, N.S. *Second Language Pedagogy*. Oxford: Oxford UP, 1987. Print.

Richards, Jack C. and T.S. Rodgers. *Approaches and Methods in Language Teaching: A*

Description and Analysis. Cambridge: Cambridge UP, 1986. Print.

Rivers, Wilga. M. *Interactive Language Teaching*. Cambridge: Cambridge UP, 1987. Print.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A- 2 short essays out of 4 of 300 words each

2x10=20 marks

Section B – 2 long essays out of 4 of 850 words each

2x10=20 marks

Section C – optional (passage analysis)

1x10=10 marks

Third Components:

Practice teaching (Teaching their own class mates)

25 marks

End-semester Evaluation

Portfolio (Preparation of materials, five lessons with integrated skills)

50 marks

No End-semester Examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Postgraduate Elective Course offered by the Department of English for
M.A / M.Sc. Degree Programmes

SYLLABUS
(Effective from the academic year 2015-2016)

ENGLISHFOR COMMUNICATION

CODE: 151EL/PE/EC24

CREDITS: 4

L T S: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVE OF THE COURSE

- To help students develop the English language

Target Learners

- Post-Graduate students with considerable proficiency in English

Unit 1

Listening

(12 hrs.)

- 1.1. Listening and Following Directions
- 1.2. Listening and Interpreting Messages Conveyed in Person or by Telephone
- 1.3. Listening to Conversations
(to be practised in the Language Lab using Clarity, UK)
 - 1.3.1. Comprehension
 - 1.3.2. Cloze Test
 - 1.3.3. Vocabulary Exercises
 - 1.3.4. Listening and Learning Spelling And Pronunciation

Unit 2

Speaking

(12 hrs.)

- 2.1. Using Appropriate Polite Expressions
 - 2.1.1. Greeting
 - 2.1.2. Thanking
 - 2.1.3. Apologising
- 2.2. Using Appropriate Registers
- 2.3. Role Play

Unit 3

Reading

(10hrs.)

- 3.1. Skimming: Identifying the Main Points of a Text
- 3.2. Scanning: Looking for Specific Information in a Text
- 3.3. Interpreting Charts, Graphs, Pie-Diagrams etc.

Unit 4
Writing (10hrs.)

- 4.1. Writing Sentences Using Correct Grammar and Punctuation
- 4.2. Paragraph Writing – Organisation
- 4.3. Note Taking
- 4.4. Summarising
- 4.5. Writing Formal Letters (application)

Unit 5
Practical Application Tasks (8hrs.)

- 5.1. Oral Presentation using PowerPoint

REFERENCE BOOKS

Jones Macziola, Sarah & Greg White. *Getting Ahead: A Communication Skills Course for Business English: Teacher's Book*. Cambridge: Cambridge University Press, 2001. Print.

.... *Getting Ahead: A Communication Skills Course for Business English: Learner's Book*. Cambridge: Cambridge University Press, 2001. Print.

Jones Leo & Richard Alexander. *New International Business English: Teacher's Book*. Cambridge: Cambridge University Press, 1997. Print.

..., *New International Business English: Student's Book*. Cambridge: Cambridge University Press, 2000. Print.

..., *New International Business English: Workbook*. Cambridge: Cambridge University Press, 2000. Print.

Mavor, Ferrier. W. *English for Business*. New Jersey: Pitman, 1988. Print.

WEB RESOURCES

www.cambridgeenglish.org

www.pearsonlongman.com

Pattern of Evaluation

Continuous Assessment	50 marks
Role Play on a given Situation	10 marks
Listening to a lecture –Note Taking and Summarising	10marks
Reading comprehension – Skimming and Scanning	10 marks
PowerPoint Presentation	20 marks
End-semester Examination	50 marks
Section A -Unit 3	20 marks
Section B - Unit 4	30 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

DETECTIVE FICTION

CODE:15EL/PE/DF14

CREDITS: 4

L T S:4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce the student to detective fiction and its various sub-genres
- To focus on the formulae of classic detective fiction and help them identify the diverse sub-genres of detective fiction

Unit 1	Overview of Detective Fiction	(3hrs.)
	1.1 History of Detective Fiction	
Unit 2	The Role of the Detective	(8hrs.)
	2.1 Dupin in Edgar Allan Poe	
	2.2 Holmes in Arthur Conan Doyle	
Unit 3	Golden Age Detective Fiction	(14hrs.)
	3.1. Features of Classic Detective Fiction	
	3.2. Agatha Christie	
Unit 4	Crime Fiction: Sub-genres	(22hrs.)
	4.1 Hard-boiled Detective Fiction	
	4.2 The Crime Thriller	
	4.3 Spy Fiction	
	4.4 The Police Procedural	
	4.4.1 Nordic Noir	
	4.5 The Serial Killer Novel	
Unit 5	Practical Application Tasks	(5 hrs.)

BOOKS FOR REFERENCE

Knox, Ronald. Introduction, *Best Detective Stories of the Year 1928*, Ed. Ronald Knox and H. Harrington. London: Faber and Faber, 1929, xi-xiv. Print.

Priestman, Martin, ed. *The Cambridge Companion to Crime Fiction*. Cambridge: Cambridge UP, 2003. Print.

WEB RESOURCES

Van dine, S.S. "Twenty Rules for Writing Detective Stories". *American Magazine* (Sep. 1928).
<<http://gaslight.mtroyal.ca/vandine.htm>>

PATTERN OF EVALUATION

Continuous Assessment:

Assignment
Seminar
Presentation
Take Home Test
Open Book Test
Scheduled Class Work – Passage Analysis etc
Quiz
Panel Discussion
Group Presentation
Role-Play
Dramatisation
Creative Writing

No End-semester Examination

Term paper

50 marks

Analysing any work of detective fiction in the light of any of the subgenres studied

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 -2016)

CHILDREN'S LITERATURE

CODE: 15EL/PE/CL14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS :52

OBJECTIVES

- To help students appreciate the diversity of children's literature
- To introduce them to its structures, conventions and effects

Unit 1

Introduction to Children's Literature (10 hrs.)

- 1.1 Defining Children's Literature
- 1.2 How to read Children's literature

Unit 2

Fairy Tales (10hrs.)

- 2.1 Features of Fairy Tales
- 2.2 Fairy Tale Motifs across Cultures:**Cinderella**Stories Across The World

Unit 3

The Picture Book (10 hrs.)

- 3.1. Picture and Text – coherence, extension, discord
- 3.2. Metafiction and the Picture Book
(*The Stinky Cheese Man and Other Fairly Stupid Tales*)

Unit 4

Fantasy (15 hrs.)

- 4.1 Definitions of fantasy
- 4.2 *Harry Potter and the Philosopher's Stone*

Unit 5

Practical Application Tasks (7 hrs.)

BOOKS FOR REFERENCE

Cullingford, Cedric. *Children's Literature and its Effects: The Formative Years.*

London, Cassel, 1998. Print.

Haviland, Virginia, ed. *Children and Literature: Views and Reviews.* London: Bodley

Head, 1973. Print.

Hume, Kathryn. *Fantasy and Mimesis.* London: Methuen, 1984. Print.

Hunt, Peter. *Understanding children's Literature: Key Essays from the International*

Companion Encyclopedia of X Children's Literature. London: Routledge, 1999. Print.

Kakar, Sudhir. *Indian Childhood: Cultural Ideals and Social Reality*. Delhi: Oxford UP, 1979. Print.

Lurie, Alison. *Boys and Girls Forever: Children's Classics from Cinderella to Harry Potter*. London: Chatto, 2003. Print.

Reynolds, Kimberley. *Children's Literature in the 1890s and the 1990s*. London: Northcote House, 1994. Print.

PATTERN OF EVALUATION

Continuous Assessment

One written assignment

One group presentation

50 marks

25 marks

25 marks

End Semester

One Term Paper – critical / creative (2000 words)

No End-semester Examination

50 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI 600 086
Postgraduate Elective Course offered by the Department of English for
M.A / M.Sc / M.Com. Degree Programmes

SYLLABUS
(Effective from the academic year 2015 -2016)

BUSINESS ENGLISH CERTIFICATE

CODE : 15EL/PE/BE34

CREDITS : 4

L T P :4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- The Business English Certificate Course is a preparatory course to help students to improve the four language skills - Reading, Writing, Listening and Speaking
- To train students to use English in business contexts

Unit 1

Reading

(15 hrs.)

- 1.1 Understanding short notices and messages.
- 1.2 Detailed comprehension of factual material.
- 1.3 Interpreting visual information.
- 1.4 Reading for gist and specific information
- 1.5 Understanding text structure - newspaper or magazine articles, advertisements or leaflets.

Unit 2

Writing

(12 hrs.)

- 2.1 Internal communication - Message, Memo or E-mail.

Unit 3

Listening

(12 hrs.)

- 3.1 Specific information
 - 3.1.1 Short conversations
 - 3.1.2 Monologues
 - 3.1.3 Interviews
 - 3.1.4 Discussion between 2 or 3 speakers

Unit 4

Speaking

(13 hrs.)

- 4.1 Conversation between the interlocutor and each candidate
- 4.2 A mini - presentation by each candidate on a business theme.
- 4.3 Two-way conversation between candidates.

REFERENCE BOOKS

Brook Hart, Guy. *Business Benchmark: Upper Intermediate Vantage*. Cambridge: Cambridge University Press, 2008. Print.

Jones Macziola, Sarah & Greg White. *Getting Ahead: A Communication Skills Course for Business English: Teacher's Book*. Cambridge: Cambridge University Press, 2001. Print.

.... *Getting Ahead: A Communication Skills Course for Business English: Learner's Book*. Cambridge: Cambridge University Press, 2001. Print.

Jones Leo & Richard Alexander. *New International Business English: Teacher's Book*. Cambridge: Cambridge University Press, 1997. Print.

..., *New International Business English: Student's Book*. Cambridge: Cambridge University Press, 2000. Print.

..., *New International Business English: Workbook*. Cambridge: Cambridge University Press, 2000. Print.

Mavor, Ferrier. W. *English for Business*. New Jersey: Pitman, 1988. Print.

WEB RESOURCES

www.examenglish.com/BEC/
www.cambridgeenglish.org
www.pearsonlongman.com

PATTERN OF EVALUATION

Continuous Assessment:		50 marks
Third Component:		
Spoken Component		10 marks
Listening Comprehension		15 marks
End-Semester Exam	50 marks	
Section A - Reading Comprehension		35 marks
Section B - Writing tasks		15 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

TECHNICAL WRITING

CODE: 15EL/PE/TW14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce students to various styles and methods in technical writing
- To train students in using basic online packages and applications as tools of technical writing

Eligibility Criteria

Knowledge of MS Office

Unit 1

Introduction

(5 hrs.)

- 1.1 What is Technical Writing?
- 1.2 Difference Between Technical and Academic Writing
- 1.3 The Scope of Technical Writing

Unit 2

Guidelines and Grammar in Technical Writing

(12 hrs.)

- 2.1. Basic Patterns and Elements of the Sentence
- 2.2. Common Grammar, Usage, Punctuation Problems
- 2.3. Writing with Clarity and Precision
- 2.4. The Fog Factor

Unit 3

The Writing Process

(15 hrs.)

- 3.1 Audience Analysis
- 3.2 Task Analysis
- 3.3 Writing and Editing (Using Track Changes)

Unit 4

Application of Technical Writing - I

(10 hrs.)

- 4.1 Writing Proposals
- 4.2 Technical Reports: Survey – Report

Unit 5

Application of Technical Writing - II

(10 hrs.)

- 5.1. Users' Manuals
- 5.2. Writing for the Web

BOOKS FOR REFERENCE

Blicq, Ronald, S and Lisa Moretto. *Technically Write!*. London: Prentice Hall, 2004.

Print.

Reddy, Devaki and Shreesh Chaudhary. *Technical English*. New Delhi: Macmillan, 2009.

Print.

Rizvi, Ashraf M. *Effective Technical Communication*. New Delhi: Tata McGraw-Hill,

2006. Print.

Samson, C Donald. *Editing Technical Writing*. London: Oxford UP, 1995. Print.

Electronic Resource

Business Writing – Clarity, UK

PATTERN OF EVALUATION

Continuous Assessment:

50 marks

Third Components:

Assignment

Presentation

Take Home Test

Open Book Test

Quiz

Group Presentation

End-semester Project : Designing a web page, with four links
(to be submitted on a CD)

50 marks

No End-semester examination

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS
(Effective from the academic year 2015 – 2016)

POPULAR FICTION

CODE: 15PL/PI/PF34

CREDITS: 4

OBJECTIVES OF THE COURSE

- To introduce students to the best in contemporary writing

COURSE CONTENT

Two best sellers in the past three years, with literary merit, to be selected by the course teacher and class, subject to the approval of the English Department.

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

4 out of 6 essays of 1000 words each

Duration: 3 hours

4 x25 =100 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH VII - ENGLISH

SYLLABUS

(Effective from the academic year 2015 – 2016)

LITERATURE AND SCIENCE

CODE: 15EL/PI/LN34

CREDITS: 4

OBJECTIVES OF THE COURSE

- To introduce students to an interdisciplinary branch of literature and science
- To encourage students to read and analyse literary texts using scientific concepts

Unit 1

Theoretical Background

- | | |
|-------------------|------------------------|
| 1.1 Mathew Arnold | Literature and Science |
| 1.2 C P Snow | Two Cultures |
| 1.3 Aldous Huxley | Literature and Science |

Unit 2

Literature and Physics

- | | |
|------------------|---------|
| 2.1 Tom Stoppard | Hapgood |
|------------------|---------|

Unit 3

Literature and Mathematics

- | | |
|-----------------------------|--|
| 3.1 Edna St. Vincent Millay | Euclid Alone has Looked on Beauty Bare |
|-----------------------------|--|

Unit 4

Literature and Botany

- | | |
|-----------------------|-------------------------|
| 4.1 Elizabeth Gilbert | Signature of All Things |
|-----------------------|-------------------------|

Unit 5

Practical Application Tasks

BOOKS FOR REFERENCE

Gossin, Pamela. *Routledge Encyclopaedia of Literature and Science*. London: Greenwood Publishing, 2002. Web. www.bookfi.org.

Gold, Barry J. *Thermopoetics: Energy in Victorian Literature*. London: MIT Press, 2010. Web. www.bookfi.org

JOURNALS

Journal of Literature and Science

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

4 out of 6 essays of 1000 words each

Duration: 3 hours

4 x 25 = 100 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

ARTS AND IDEAS

CODE: 15FA/PC/AI14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To provide an overview of Indian and Western art and the contexts and ideas that shaped their styles of expression

Unit 1 (25 hrs.)

Indian

- 1.1 Indus Valley Civilization: Trade and Agriculture – Seals
- 1.2 Vedic: The Divine Ideal: Ritual and Sacrifice – Gopuram, Bali Peedam and Yasti in temples; Forces of Nature – Indra, Surya sculptural panels, Bodh Gaya
- 1.3 Buddhist: The Human Ideal; Social Reformation; Symbolic, Anthropomorphic: Hinayana and Mahayana – Sanchi Stupa No. 1; Bharhut relief; Ajanta Bodhisattva Avalokiteswara; Seated Buddha, Sarnath
- 1.4 Jain: Man and Nature – Gommatesvara, Sravana-Belagola; Sittanavasal mural
- 1.5 Hindu: Mythology and Metaphysics: Purusha/Prakriti – Ardhanariswara, Gangaikondacholapuram; Triad: Brahma, Vishnu, Shiva – Vishnu Anantasayana, Deogarh; Seated Vishnu, Aihole; Trimurti, Elephanta; Kankaramurti, Gangaikondacholapuram; Nataraja Bronze; Shakthi – Goddess Durga killing the Buffalo Demon, Jodhpur miniature paintings; Bhakthi – Krishna and Radha in the Groves, Kangra miniature painting
- 1.6 Islam: Submission to God – Jami Masjid, Delhi; Symbols of Power – Taj Mahal, Agra; Jehangir's Dream, miniature painting
- 1.7 Nation as Concept: Colonialism – Company Painting; Nationalism – Bharat Mata, Abanindranath Tagore; Post-Colonialism – Nalini Malani; Subodh Gupta

Unit 2 (10 hrs.)

Classical

- 2.1 Hellenic: Humanism, Idealism, Rationalism – Doryphorus; Parthenon
- 2.2 Hellenistic: Individualism – Seated Boxer; Realism – Old Market Woman
- 2.3 Roman: Organisation – Pantheon; Utilitarianism – Pont du Gard

Unit 3 (10 hrs.)

Medieval

- 3.1 Early Christian and Byzantine: Authoritarianism – Justinian and Theodora mosaics, San Vitale, Ravenna; Mysticism – Last Supper mosaic, Sant Apollinaire Nuovo, Ravenna
- 3.2 Romanesque: Contemplative Life – St Isaiah, west portal, Church of Notre Dame, Souillac
- 3.3 Gothic: Dualism, Scholastic synthesis – Chartres cathedral, Chartres

Unit 4 (10 hrs.)

Renaissance to Post-Impressionism

- 4.1 Renaissance: Classical Humanism – David, Michelangelo; Scientific Naturalism – Study of Human Proportions according to Vitruvius, Leonardo da Vinci; Renaissance Individualism – The Prophet, Donatello
- 4.2 Baroque: Absolutism – Louis XIV, Hyacinthe Rigaud; Observation – The Art of Painting, Jan Vermeer
- 4.3 Revolutionary Period: Faithfulness to Antique Models – The Oath of Horatii, Jacques Louis David; Romantic Historicism – The Third of May, 1808, Francisco Goya; Alliance of Art and Science – A Sunday Afternoon on the Island of La Grande Jatte, Georges Seurat; Mont Sainte Victoire, Paul Cezanne

Unit 5 (10 hrs.)

Twentieth Century Art

- 5.1 Modernism: Relativism – Guernica, Pablo Picasso
- 5.2 Mid-twentieth century: Existentialism – Painting, Francis Bacon
- 5.3 New Millennium: Postmodernism – Stereo Styles, Lorna Simpson; Globalism – Svyambh, Anish Kapoor

PATTERN OF EVALUATION

- There will be no end semester examination
- **Continuous Assessment:** **75 marks**
 - 2 Tests (20 marks each) 40 marks
 - Written assignment 20 marks
 - Seminar 15 marks
- **Evaluation of term paper by external examiner:** **25 marks**

BOOKS FOR STUDY

Champakalakshmi, R. and Usha Kris. *The Hindu Temple*. New Delhi: Roli and Janssen, 2001.

Havell, E. B. *Indian Sculpture and Painting with an Explanation of their Motives and Ideals*. New Delhi: Cosmo, 1980.

Marien, Mary Warner and William Fleming. *Flemming's Arts and Ideas*. 10th ed. California: Thomson Wadsworth, 2005.

Miller, Barbara Stoler. *Exploring India's Sacred Art: Selected Writings of Stella Kramrisch*. New Delhi: Indira Gandhi National Centre for the Arts, 1994.

BOOKS FOR REFERENCE

Chakraverty, Anjan. *Indian Miniature Painting*. New Delhi: Roli and Janssen, 1996.

Chandra, Pramod. *The Sculpture of India: 3000 BC-1300AD*. Washington: National Gallery of Art, 1985.

- Barrett, Douglas, and Basil Gray. *Indian Painting: Treasures of India*. London: Macmillan, 1978.
- Feldman, Edmund Burke. *Art as Image and Idea*. New Jersey: Prentice Hall, 1967.
- Fichner-Rathus, Lois. *Understanding Art*. 6th ed. London: Thomson Wadsworth, 2001.
- Gombrich, E H. *The Story of Art*. London: Phaidon, 2010.
- Harle, J. C. *The Art and Architecture of the Indian Subcontinent*. Pelican History of Art series. London: Penguin, 1987.
- Kleiner, Fred S. *Gardners' Art Through the Ages*. 13th ed. Belmont: Thomson Wadsworth, 2009.
- Roy, Pabitra Kumar. *Beauty Art and Man: Recent Indian Theories of Art*. New Delhi: Munshiram Manoharlal, 1990.
- Minor, Vernon Hyde. *Art History's History*. 2nd ed. New Jersey: Prentice Hall, 2001.
- Myers, Bernard. *The Book of Art: How to Look at Art*. Canada: Grolier, 1965.
- Pooke, Grant, and Diana Newall. *Art History: The Basics*. Oxon: Routledge, 2008.
- Ray, Niharranjan. *Idea and Image in Indian Art*. New Delhi: Munshiram Manoharlal, 1973.
- Rowland, Benjamin. *The Art and Architecture of India: Buddhist, Hindu, Jain*. Pelican History of Art series. Harmondsworth: Penguin, 1970.
- World Art: The Essential Illustrated History*. London: Flame Tree, 2006.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

DESIGN HISTORY

CODE: 15FA/PC/DH14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide an awareness of the discipline of Design History
- To provide an understanding of the development of modern and postmodern design within its international cultural, social and economic context

Unit 1 **(5 hrs.)**

Introduction

- 1.1 Defining design, design history and history of design
- 1.2 Aspects of design history – role of the design historian

Unit 2 **(15 hrs.)**

Approaches to Design History

- 2.1 Materials/techniques approach
- 2.2 Comparative method
- 2.3 Content analysis
- 2.4 Typological approach
- 2.5 National histories of design
- 2.6 Anthropology and design history
- 2.7 Social history approach
- 2.8 Structural and semiotic approaches

Unit 3 **(20 hrs.)**

Design and Modernity 1900-1939

- 3.1 Consuming modernity
- 3.2 Impact of technology
- 3.3 The designer of industry
- 3.4 Modernism and design
- 3.5 Designing identities

Unit 4 **(20 hrs.)**

Design and Postmodernity 1940 to the Present

- 4.1 Consuming postmodernity
- 4.2 Technology and design
- 4.3 Designer culture
- 4.4 Postmodernism and design
- 4.5 Redefining identities

Unit 5
Feminist Critiques of Design

(5 hrs.)

PATTERN OF EVALUATION

- There will be no end semester examination
- **Continuous Assessment:** **75 marks**
 - 2 Tests (20 marks each) 40 marks
 - Written assignment 10 marks
 - Seminar 15 marks
 - Reading and discussion 10 marks
- **Evaluation of term paper by external examiner:** **25 marks**

BOOKS FOR STUDY

Sparke, Penny. *An Introduction to Design and Culture: 1900 to the Present*. 2nd ed. London: Routledge, 2004.

Walker, A. John. *Design History and the History of Design*. London: Pluto, 1989.

BOOKS FOR REFERENCE

Adamson, Glenn, Giorgio Riello and Sarah Teasley. *Global Design History*. Oxon: Routledge, 2011.

Balaram, S. *Thinking Design*. New Delhi: Sage, 2011.

Bayley, Stephen, and Terence Conran. *Design: Intelligence Made Visible*. Canada: Firefly, 2007.

Conway, Hazel. *Design History: A Student's Handbook*. London: Routledge, 1997.

Fallan, Kjetil. *Design History: Understanding Theory and Method*. New York: Berg, 2010.

Kirkham, Pat, and Susan Weber. *History of Design: Decorative Arts and Material Culture, 1400-2000*. New York: Yale University Press, 2013.

Koshy, Darlie. *Indian Design Edge: Strategic Insights for Success in the Creative Economy*. New Delhi: Lotus, 2008.

Lees-Maffei, Grace, and Rebecca Houze. *The Design History Reader*. New York: Berg, 2010.

Marks, Terry, and Matthew Porter, *Good Design*. Massachusetts: Rockport, 2009.

McDermott, Catherine. *Design: The Key Concepts*. Oxon: Routledge, 2007.

Norman, Donald A. *Emotional Design: Why We Love (or Hate) Everyday Things*. New York: Basic, 2005.

Riley, Noel. *Elements of Design: The Development of Design and Stylistic Elements from the Renaissance to the Postmodern Era*. London: Mitchell Beazley, 2003.

Rodgers, Paul, and Alex Milton. *Product Design*. London: Lawrence King, 2011.

Sparke, Penny. *Design in Context*. London: Bloomsbury, 1987.

Stewart, David M. *The Century of Modern Design*. France: Flammarion, 2010.

Woodham, Jonathan M. *Twentieth Century Design*. Oxford: Oxford University Press, 1997.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE
BRANCH X – HISTORY OF ARTS**

**SYLLABUS
(Effective from the academic year 2015 -2016)**

DRAWING AND PAINTING – PRACTICAL

CODE: 15FA/PC/P114

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVE OF THE COURSE

- To impart drawing and painting skills towards art and design requirements

Unit 1 Perspective Drawing	(15 hrs.)
Unit 2 Figure Drawing	(18 hrs.)
Unit 3 Expressive Drawing	(15 hrs.)
Unit 4 Rendering Techniques	(15 hrs.)
Unit 5 Painting Techniques	(15 hrs.)

GUIDELINES

- Different drawing and painting media are to be used
- Memory drawing and peer evaluation are to be conducted periodically
- A journal submitted once a month will be part of the continuous assessment
- Prescribed coursework is to be completed and presented to the course teacher on scheduled dates during the semester

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic classroom process
- A journal should be maintained
- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal 10 marks

Course work 40 marks

- **End Semester Evaluation:** Course work prescribed for end semester submission will be assessed by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

- Barber, Barrington, and Peter Gray. *The Ultimate Drawing Workbook*. London: Artcurus, 2009.
- Buchan, Jack, and J. Baker. *Step-by-Step Art School Portraits*. London: Hamlyn-Reed, 1995.
- Douet, Valerie C. ed. *Drawing for Pleasure*. Kent: Search, 2001.
- Dunlop, M. James. *Anatomical Diagrams for the Use of Art Students*. New York: Macmillan, 1946.
- Fair, David, and Marilyn Kenny. *Design Graphics*. London: Hodder and Stoughton, 1987.
- Felder, Eugene. *Still Life Fundamentals*. London: Kandour, n.d.
- Gair, Angela. *Drawing: A Step-by-Step Guide to Drawing Techniques*. Twickenham: Tiger, 1997.
- Guptill, Arthur. *Freehand Drawing Self-Taught*. New York: Watson Guptill, 1984.
- Harrison, Hazel. *Art School: How to Paint and Draw*. London: Hermes, 2009.
- Huntly, Moira. *The Artist's Drawing Book*. Devon: David and Charles, 1994.
- Jackson, Jack. *Introduction to Drawing*. London: Quantum, 2002.
- Mulick, Milind. *Methods and Techniques: Opaque Colour*. Pune: Jyotsna Prakashan, 2005.
- Mulick, Milind. *Watercolour*. Pune: Jyotsna Prakashan, 2000.
- Pearsall, Ronald. *Practical Painting*. Belgium: Winchmore, 1983.
- Perard, Victor. *Anatomy and Drawing*. Mumbai: Grace Prakashan, 2000.

Raynes, John. *Human Anatomy for the Artist*. London: Hamlyn, 1979.

Tappenden, Curtis, et al. *Complete Art Foundation Course*. London: Octopus, 2006.

Webb, David. *Still Life in Watercolour*. Kent: Search, 2005.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X – HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

DESIGN DYNAMICS – PRACTICAL

CODE: 15FA/PC/P214

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To develop ‘design seeing’
- To facilitate personal enquiry on the basis of practice
- To place emphasis on intuitive and analytical approaches

Unit 1 Primary Elements and Forces	(18 hrs.)
Unit 2 Two-dimensional Field and Space Frame	(15 hrs)
Unit 3 Spatial Forces	(15 hrs)
Unit 4 Visual Kinetics	(15 hrs)
Unit 5 Colour	(15 hrs)

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document design process and development
- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal	10 marks
Course work	40 marks

- **End Semester Evaluation:** Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Bayley, Stephen, and Terence Conran. *Design: Intelligence Made Visible*. Canada: Firefly, 2007.

Cossu, Matteo. *1000 Ideas by 100 Graphic Designers*. Massachusetts: Rockport, 2009.

Grant Design Collaborative. *1000 More Graphic Elements*. Massachusetts: Rockport, 2009.

Hampshire, Mark, and Keith Stephenson. *Communicating with Pattern: Stripes*. New Delhi: Rotovision, 2004.

Hampshire, Mark, and Keith Stephenson. *Communicating with Pattern: Circles and Dots*. New Delhi: Rotovision, 2006.

Heller, Steven, and Veronique Vienne. *100 Ideas that Changed Graphic Design*. London: Laurence King, 2012.

Marks, Terry, and Matthew Porter. *Good Design*. Massachusetts: Rockport, 2009.

Philips, Peter, and Gillian Bunce. *Repeat Patterns: A Manual for Designers, Artists and Architects*. London: Thames and Hudson, 1993.

Resnick, Elizabeth. *Design for Communication: Conceptual Graphic Design Basics*. New Jersey: John Wiley and Sons, 2003.

Sausmarez, de Maurice. *Basic Design: The Dynamics of Visual Form*. London: Hertbert, 1992.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE

BRANCH X - HISTORY OF FINE ARTS

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOFT SKILLS

CODE : 15FA/PK/SS12

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self development
- To instill confidence and face challenges

Unit 1 (6 hrs)

Behavioural Traits

- 1.1 Self Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and mannerisms
- 1.5 Experiential Learning – Based on activities

Unit 2 (5 hrs)

Team Work

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on activities

Unit 3 (5 hrs)

Time Management

- 3.1 Importance of time management
- 3.2 Planning and Prioritizing
- 3.3 Organizing skills
- 3.4 Action Plan
- 3.5 Experiential Learning – Based on activities

Unit 4 (5 hrs)

Conflict Resolution

- 4.1 Reasons for conflict
- 4.2 Consequences of conflict
- 4.3 Managing emotions
- 4.4 Methods of resolving conflicts
- 4.5 Experiential Learning – Based on activities

Unit 5

(5 hrs)

Career Mapping

- 5.1 Goal Setting and Decision Making
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv, (2002), **You Can Win**, Macmillan India Ltd., Delhi.

Mishra, Rajiv K., (2004), **Personality Development : Transform Yourself**, Rupa and Co., New Delhi.

Newstrom, John W. and Scannell, Edward E., (1980), **Games Trainers Play: Experiential Learning**, Tata McGraw Hill, New Delhi.

PATTERN OF EVALUATION (Totally Internal)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

WEAVING – PRACTICAL

CODE: 15FA/PC/TI24

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To provide an awareness of fibres, yarns, fabrics and textile construction
- To enable an understanding of elementary weave structures through weaving practice
- To enhance skills in weave design using CAD

Unit 1 (8 hrs)

Fibres, Yarns and Fabrics

- 1.1 Cellulose, protein and manufactured fibres
- 1.2 Yarn twist, types and numbering systems
- 1.3 Fabrics: types, weights, preparation, finishes and care
- 1.4 New textiles

Unit 2 (7 hrs.)

Textile Construction Techniques

- 2.1 Early structures: felts and bark cloth
- 2.2 Weaving: the hand loom, loom operations, automation of weaving and weaving machines
- 2.3 Looped, knotted and braided fabrics
- 2.4 Films, nonwovens and stitch-bonded fabrics

Unit 3 (8 hrs.)

Representation of Woven Fabric Structure

- 3.1 Weave repeat
- 3.2 Drafting and lifting plans

Unit 4 (30 hrs.)

Elementary Weaves

- 4.1 Plain, twill and satin weaves and their variations
- 4.2 Simple colour and weave effects
- 4.3 Miscellaneous elementary structures: crepe weaves, honey comb weaves, huckaback weaves, mock leno weaves

Unit 5 (25 hrs.)

Designing for Figured Weaves

- 5.1 Dobby shedding, simple spot and doobby designs
- 5.2 Jacquard shedding and designs
- 5.3 Designs for extra warp and weft structures

GUIDELINES

- Students are expected to participate in periodic reviews, group work, educational trips and market surveys
- Students are required to submit a journal which documents their assimilation of the course content and enhanced with fabric samples; fibre and fabric data charts; weave samples and relevant illustrations
- Sample looms and frame looms will be used for weaving practice in Unit 4
- Coursework for Unit 5 will be CAD based. Students will develop a concept based collection of weave designs comprising yarn dyed and patterned coordinates
- Traditional Indian woven textiles will be discussed wherever relevant

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic and original classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines

- **Continuous Assessment**

Prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Continuous Assessment

Test on Unit 1 and 2	10 marks
Journal	10 marks
Course work	30 marks

- **End Semester Evaluation**

Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Alderman, Sharon. *Mastering Weave Structures*. Loveland: Interweave, 2004.

Braddock, Sarah E. and Marie O'Mahony. *Techno Textiles: Revolutionary Fabrics for Fashion and Design*. London: Thames and Hudson, 2001.

Collier, Billie J. and Phyllis G. Tortora. *Understanding Textiles*. 6th ed. New Jersey: Prentice Hall, 2001.

Elsasser, Virginia Hencken. *Textiles Concepts and Principles*. New York: Fairchild, 2007.

Grosicki, Z. *Watson's Textile Design and Colour: Elementary Weaves and Figured Fabrics*. 7th ed. London: Butterworth, 1975.

Louie, Elaine. *Living with Textiles*. London: Octopus, 2001.

Varadarajan, Lotika and Krishna Amin-Patel. *Of Fibre and Loom: The Indian Tradition*. New Delhi: Manohar, 2008.

Yates, Marypaul. *Fabrics: A Guide for Interior Designers and Architects*. New York: W.W. Norton, 2002.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X –HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

PUBLISHING DESIGN – PRACTICAL

CODE: 15FA/PC/G124

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To develop thematic and sequential typographic design applications
- To provide an overview of publishing design
- To explore problem-solving methods related to different formats

Unit 1 (18 hrs.)

Type Structure and Terminology

- 1.1 Elements of letterforms
- 1.2 Classification of typefaces
- 1.3 Legibility and readability
- 1.4 Form and content

Unit 2 (15 hrs.)

Elements of the Page

- 2.1 Grid
- 2.2 Template
- 2.3 Page layout

Unit 3 (15 hrs.)

Printing Techniques and Processes

Unit 4 (15 hrs.)

Newsletter

- 4.1 Mastheads
- 4.2 Newsletter layouts

Unit 5 (15 hrs.)

Flyers, Brochures and Magazines

- 5.1 Folds
- 5.2 Pagination
- 5.3 Layouts

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document design process and development
- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal 10 marks

Course work 40 marks

- **End Semester Evaluation:** Coursework prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Carter, Rob, Ben Day and Philip Meggs. *Typographic Design: Form and Communication*. 4th ed. New Jersey: John Wiley, 2007.

Coultre, Martijn F. Le and Alston W. Purvis. *A Century of Posters*. Hampshire: Lund Humphries, 2002.

Krause, Jim. *Layout Index*. Ohio: How Design Books, 2001.

Krause, Jim. *Idea Index*. Ohio: How Design Books, 2000.

Matlock, Marshall C. *The Best of Newspaper Design*. 22nd ed. Massachusetts: Rockport, 2001.

Pao, Imin, and Joshua Berger. *30 Essential Typefaces for a Lifetime*. Massachusetts: Rockport, 2006.

Rabinowitz, Tova. *Typography: In-Depth Guide to the Art and Techniques of Designing with Type*. New York: Thomson Delmar, 2006.

Rivers, Charlotte. *Mag-Art: Innovations in Magazine Design*. Switzerland: Rotovision, 2006.

Rivers, Charlotte. *Promo-Art: Innovations in Invitations, Greetings, and Business Cards*. Switzerland: Rotovision, 2008.

Walton, Roger, ed. *Page Layout: Inspiration Innovation Information*. New York: HBI, 2000.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

TEXTILE PRINTING - PRACTICAL

CODE: 15FA/PC/T234

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To create an awareness of textile dyeing and printing
- To develop creative design skills for print applications
- To enable the development of a concept based collection of printed textiles

Unit 1		(8 hrs.)
Dyeing and Printing		
1.1 Natural dyestuffs and dyeing techniques		
1.2 Synthetic dyes and dye classes		
1.2 Dyeing at different processing stages		
1.3 Direct, discharge, mordant and resist printing		
1.4 Special techniques: flock, foil, devoré, expanding ink		
Unit 2		(24 hrs.)
Design Development		
2.1 Design development methodology: ideation, research, mood board, and colour story		
2.2 Motif and pattern derivation, design editing and development		
2.3 Colour in textiles: Pantone fashion and home palette		
2.4 Layout and repeat construction: tailored and seamless repeats		
2.5 Colourways and coordinates		
Unit 3		(20 hrs.)
Block Printing		
3.1 Direct and resist techniques		
3.2 Design and product development		
Unit 4		(20 hrs.)
Screen Printing		
4.1 Hand-screen, automatic flat bed and rotary screen processes		
4.2 Design and product development		
Unit 5		(6 hrs.)
Digital Printing		

GUIDELINES

- Students are expected to participate in periodic reviews, group work, educational trips and market surveys
- Units 3, 4 and 5 will require concept based developments of printed textiles / products
- Indian dye and print traditions will be discussed wherever relevant

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic and original classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document design process and development

- **Continuous Assessment**

Prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal	10 marks
Course work	40 marks

- **End Semester Evaluation**

Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Diane, Tracy and Tom Cassidy. *Colour Forecasting*. United Kingdom: Blackwell, 2005.

Meller, Susan and Joost Elffers. *Textile Designs*. London: Thames and Hudson, 1991.

Phillips, Peter and Gillian Bunce. *Repeat Patterns: A Manual for Designers, Artists and Architects*. London: Thames and Hudson, 1993.

Robinson, Stuart and Patricia Robinson. *Exploring Fabric Printing*. London: Mills and Boon, 1970.

San Martin, Macarena. *Patterns in Fashion*. Koln: Evergreen, 2009.

Storey, Joyce. *The Thames and Hudson Manual of Textile Printing*. London: Thames and Hudson, 1992.

Van Roojen, Pepin. *Indian Textile Prints*. Amsterdam: Agile Rabbit, 1999.

Vidyasagar, P.V. *Handbook of Textiles*. New Delhi: Mittal, 1998.

Wells, Kate. *Fabric Dyeing and Printing*. London: Conran Octopus, 1997.

Yates, Marypaul. *Textiles: A Handbook for Designers*. New York: W.W. Norton, 1995.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X –HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

COMMUNICATION DESIGN I – PRACTICAL

CODE: 15FA/PC/G234

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To understand categories of logos and symbols and their development
- To understand visual hierarchy and communication in the development of corporate identity
- To enable development of visual aesthetics related to package design and labels

Unit 1 (3 hrs)

Introduction

1.1 Communication process

Unit 2 (20 hrs)

Corporate and Brand Identity

2.1 Designing symbols and logotypes

Unit 3 (20 hrs)

Designing Brand Identity

3.1 Building brand identity

Unit 4 (10 hrs)

Packaging Design

4.1 Material and design considerations

4.2 Packaging templates, finishes and effects

Unit 5 (25 hrs)

Packaging Applications

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document design process and development

- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal	10 marks
Course work	40 marks

- **End Semester Evaluation:** Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

REFERENCE BOOKS

Cossu, Matteo. *1000 Ideas by 100 Graphic Designers*. Massachusetts: Rockport, 2009.

Cullen, Cheryl Dangel. *The Best of Business Card Design*. Massachusetts: Rockport, 2002.

Evamy, Michael. *Graphics Explained*. Switzerland: RotoVision, 2009.

Gordon, Bob and Maggie Gordon, eds. *A Complete Guide to Graphic Design*. London: Thames and Hudson, 2005.

Groth, Chuck. *Exploring Packaging Design*. New York: Thomson, 2006.

Healey, Matthew. *Deconstructing Logo Design*. Switzerland: Rotovision, 2010.

Krause, Jim. *Idea Index*. Ohio: How Design Books, 2000.

Livingston, Alan and Isabella Livingston. *Dictionary of Graphic Design and Designers*. 3rd edition, London: Thames and Hudson, 2012.

Point-Of-Purchase Design Annual 51: The 39th Merchandising Awards. New York: Retail Reporting, 1997.

Rivers, Charlotte. *Logo-Art: Innovation in Logo Design*. Switzerland: Rotovision, 2009.

Rodgers, Paul and Alex Milton. *Product Design*. London: Laurence King, 2011.

Sinha, Anil. *Ideating Identity*. Ahmedabad: Maitreya, National Institute of Design, 2010.

Sibley/Peteet Design, Austin. *The Best of Business Card Design 8*. Massachusetts: Rockport, 2008.

Wheeler, Alina. *Designing Brand Identity: A Complete Guide to Creating Building and Maintaining Strong Brands*. New Jersey: John Wiley, 2003.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

FASHION, ACCESSORIES AND EMBELLISHMENTS – PRACTICAL

CODE: 15FA/PC/T344

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To provide an awareness of fashion and textile accessories
- To enable an understanding of fabric manipulation and stitched embellishment

Unit 1 **(25 hrs.)**

Fashion

- 1.1 Fashion terminology, cycles and adoption theories
- 1.2 Western and Indian garment styles in womenswear and menswear
- 1.3 Clothing construction: fabric preparation, sizes, pattern layout, cutting, stitches, seams, fullness, making up methods
- 1.4 Apparel sub-materials: interlining, sewing threads, fastenings, trims
- 1.5 Appreciation of silhouette, proportion, texture, pattern and prints, colour, fabric, cut and details

Unit 2 **(8 hrs.)**

Accessories

- 2.1 Fashion accessories
- 2.2 Home accessories

Unit 3 **(8 hrs.)**

Fabric Manipulation

Fabric tube turning, pleats, tucks, gathers, piping

Unit 4 **(25 hrs.)**

Embroidery

- 4.1 Hand embroidery: free style and cutwork
- 4.2 Indian embroidery: toda, kanta, phulkari, chikankari, kasuti, Kashmiri kashida, kutchi, zardosi
- 4.3 Machine embroidery

Unit 5 **(12 hrs.)**

Appliqué, Quilting and Patchwork

GUIDELINES

- Students are expected to participate in periodic reviews, group work, educational trips and market surveys
- Units 3, 4 and 5 will require sample making of the prescribed techniques

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic and original classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document course inputs, as well as design and sample developments
- **Continuous Assessment**
Prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components	
Journal	10 marks
Course work	40 marks
- **End Semester Evaluation**
Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

- Baugh, Gail. *The Fashion Designer's Textile Directory: The Creative Use of Fabrics in Design*. London: Thames and Hudson, 2011.
- Bawden, Juliet. *The Art and Craft of Applique*. London: Mitchell Beazley, 1991.
- Diamond, Jay and Ellen Diamond. *Fashion Apparel, Accessories and Home Furnishings*. New Delhi: Dorling Kindersley, 2008.
- Fogg, Marnie. *The Fashion Design Directory*. London: Thames and Hudson, 2011.
- Frings, Gini Susan. *Fashion: From Concept to Consumer*. New Delhi: Dorling Kindersley, 2008.
- Gale, Colin and Jasbir Kaur. *Fashion and Textiles*. Oxford: Berg, 2004.
- Gardiner, Wendy. *The Encyclopedia of Sewing Techniques*. Kent: Search, 2004.
- Gordon, Maggi McCormick. *The Quilting Sourcebook*. London: Collins and Brown, 1997.
- Hemingway, Karen. *The Encyclopedia of Stitches*. London: New Holland, 2004.
- Ireland, Patrick John. *Encyclopedia of Fashion Details*. London: B. T. Batsford, 1996.
- San Martin, Marcarena. *How to be a Fashion Designer*. Singapore: Paco Asensio, 2009.
- Shrikant, Usha. *Ethnic Embroidery of India*. Mumbai: Samata, 1998.
- Worsley, Harriet. *100 Ideas that Changed Fashion*. London: Laurence King, 2011.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE
BRANCH X – HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015-2016)

MOBILE APPLICATION AND WEB PAGE DESIGN – PRACTICAL

CODE: 15FA/PC/G344

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To provide a foundation in digital arts in relation to web page and mobile application development
- To develop visual design skills for mobile apps
- To explore the fundamentals of creating raster and vector visual assets for mobile apps using Adobe Photoshop and other image editing software

Unit 1	Introduction	(3 hrs.)
Unit 2	Designing Graphics for Mobiles 2.1 Flat design techniques 2.2 Symbols and icons	(20 hrs.)
Unit 3	Mobile Applications 3.1 Screen layouts 3.2 2D and 3D graphics 3.3 Userflow design, wireframes, mobile UI patterns	(20 hrs.)
Unit 4	Web Page Planning 4.1 Composition 4.2 Layout	(15 hrs.)
Unit 5	Web Page Production	(20 hrs.)

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic and process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines

- A journal should be maintained to document course inputs, as well as design and sample developments
- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal	10 marks
Course work	40 marks

- **End Semester Evaluation:** Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Beaird, Jason. *The Principles of Beautiful Web Design*. 2nd edition, Sitepoint, 2010.

Cossu, Matteo. *1000 Ideas by 100 Graphic Designers*. Massachusetts: Rockport, 2009.

Gordon, Bob and Maggie Gordon, eds. *A Complete Guide to Graphic Design*. London: Thames and Hudson, 2005.

Grant Design Collaborative. *1000 More Graphic Elements*. Massachusetts: Rockport, 2009.

Heller, Steven and Veronique Vienne. *100 Ideas that Changed Graphic Design*. London: Laurence King, 2012.

Jute, Andre. *Grids: The Structure of Graphic Design*. Switzerland: Rotovision, 1996.

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BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

SUMMER INTERNSHIP

CODE: 15FA/PN/SI32

CREDITS: 2

OBJECTIVES OF THE COURSE

- To enable the student to acquire knowledge necessary for enhancing design competency
- To create opportunities for capacity building through industry experience

- The student will source and select an organization, firm or facility specializing in textiles or graphic design, where she will be permitted to undergo a mandatory internship / work experience for a duration of four weeks
- The interning agency may be identified in the city of Chennai, or any other feasible location
- The student should finalise her choice of interning agency and obtain necessary approvals from the Department of Fine Arts and the agency before the completion of the second semester of study
- The internship must be completed between the second and third semesters, during the summer vacation
- Students are expected to maintain a logbook / workbook of their internship experiences, which will be submitted along with a report at the beginning of the third semester
- Students will also make a presentation of their internship activities and learning
- Certification from the agency of internship will have to be submitted, along with an attendance certificate and an evaluation report

EVALUATION

Logbook	40 marks
Report	30 marks
Presentation	20 marks
Agency evaluation	10 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE

BRANCH X - HISTORY OF FINE ARTS

SYLLABUS

(Effective from the academic year 2015 -2016)

TEXTILE PRODUCT DEVELOPMENT– PRACTICAL

CODE: 15FA/PC/T444

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To provide an understanding of textile product development
- To enable a personal exploration of fabric, technique and design leading to a concept based collection of textile products

Unit 1

(3 hrs.)

Factors Essential for Product Development

- 1.1 Aesthetic and technological considerations
- 1.2 Market research and consumer demand
- 1.3 Selection of materials: performance characteristics, aesthetics, cost
- 1.4 Manufacturing methods: one-off, batch and mass production
- 1.5 Safety specification standards

Unit 2

(7 hrs.)

Conceptualisation of a Textile Collection

- 2.1 Proposal and concept
- 2.2 Problem analysis, research questions and objectives

Unit 3

(8 hrs.)

Research

- 3.1 Demographic and psychographic research
- 3.2 Materials, techniques, feasibility
- 3.3 Data collection and market survey

Unit 4

(30 hrs.)

Design

- 4.1 Design development
- 4.2 Sourcing and scheduling
- 4.3 Sampling, testing and quality standards

Unit 5

(30 hrs.)

Product Development

- 5.1 Costing and pricing: cost of production, price point and product price
- 5.2 Product development
- 5.3 Documentation

GUIDELINES

- Students are expected to participate in periodic reviews, group work, educational trips and market surveys
- Units 2 – 5 will require students to develop an original concept / theme based collection of textile products that are fabricated to professional standards
- The product development is to be documented, and a copy should be submitted to the Department of Fine Arts
- The documentation should include the following
 - Concept note
 - Exploration of materials and techniques
 - Working sketches and final artworks (with actual size details)
 - Sampling
 - Photo-documentation of the design process and product execution
 - Product specifications and costing

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic and original classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines
- **Continuous Assessment**
Prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components	
Documentation	20 marks
Design and sampling	30 marks
- **End Semester Evaluation**
The collection will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Collier, Billie J. and Phyllis G. Tortora. *Understanding Textiles*, 6th edition, New Jersey: Prentice Hall, 2001.

Diamond, Jay and Ellen Diamond. *Fashion Apparel, Accessories and Home Furnishings*. New Delhi: Dorling Kindersley, 2008.

Frings, Gini Susan. *Fashion: From Concept to Consumer*. New Delhi: Dorling Kindersley, 2008.

Lebeau, Caroline. *Fabrics: The Decorative Art of Textiles*. London: Thames and Hudson, 2004.

Yates, Marypaul. *Fabrics: A Guide for Interior Designers and Architects*. New York: W.W. Norton, 2002.

Carnes, Suzanne and Mary Cockram, ed. *Product Costing and Pricing: Artisan as Entrepreneur Training Module*. Geneva: International Trade Centre, 2000.

Suresh, Jayshree. *Entrepreneurial Development*. Chennai: Margham, 2007.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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BRANCH X –HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

COMMUNICATION DESIGN II – PRACTICAL

CODE: 15FA/PC/G234

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To understand media and its relevance to promotion
- To explore visual merchandising for retail
- To provide a brief background of advertising
- To design a comprehensive advertising campaign

Unit 1	(3 hrs.)
Media	
1.1 Media strategies	
1.2 Traditional and contemporary promotional	
Unit 2	(20 hrs.)
Marketing	
2.1 Direct marketing	
2.2 Public relations and event marketing	
Unit 3	(20 hrs.)
Visual Merchandising	
3.1 Window and in-store display for retail	
3.2 Exhibition design	
Unit 4	(10 hrs.)
Advertising process	
4.1 Copywriting and visualising	
4.2 Layout	
Unit 5	(25 hrs.)
Advertising	
5.1 Public service advertising	
5.2 Commercial campaign	

PATTERN OF EVALUATION

- There will be no end semester examination

- Coursework will be evaluated as a systematic classroom process, and at final critiques. Assessment will focus on conceptual, creative and critical abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document design process and development
- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal	10 marks
Course work	40 marks

- **End Semester Evaluation:** Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

REFERENCE BOOKS

Cossu, Matteo. *1000 Ideas by 100 Graphic Designers*. Massachusetts: Rockport, 2009.

Evamy, Michael. *Graphics Explained*. Switzerland: RotoVision, 2009.

Gordon, Bob and Maggie Gordon, eds. *A Complete Guide to Graphic Design*. London: Thames and Hudson, 2005.

Godfrey, Jason. *The Best of Brochure Design 9*. Massachusetts: Rockport, 2006.

Jones, John Philip, ed. *The Advertising Business: Operations, Creativity, Media Planning, Integrated Communications*. California: Sage, 1999.

Krause, Jim. *Idea Index*. Ohio: How Design Books, 2000.

Livingston, Alan and Isabella Livingston. *Dictionary of Graphic Design and Designers* 3rd edition, London: Thames and Hudson, 2012.

Point-Of-Purchase Design Annual 51: The 39th Merchandising Awards. New York: Retail Reporting, 1997.

Roman, Kenneth and Jane Maas. *How to Advertise: What Works, What Doesn't, and Why*, 3rd edition, London: Kogan Page, 2003.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

DISSERTATION

CODE: 15FA/PC/DI49

CREDITS: 9

L T P: 0 12 0

TOTAL TEACHING HOURS: 00

OBJECTIVES OF THE COURSE

- To enable students to demonstrate their capacity to carry out independent
- academic research on a selected topic
- To provide an opportunity to apply skills and knowledge of art and design to a
- new issue, area, work or body of work of the student's choice

GUIDELINES

- The student should select a clearly defined dissertation topic in her area of interest in the disciplines of art or design
- The student should present her plan for research to a panel of faculty. This plan should include:
 - A rationale for the topic, indicating the question to be studied and reasons why it is worth studying
 - An outline of the dissertation, indicating the principle chapters or sections into which it will be divided
 - An indication of the sources to be consulted, and a basic bibliography
- Following presentation and approval of the research plan, the student will be allotted a faculty supervisor
- The student is required to meet with her supervisor fortnightly to update on work progress
- The work will be disqualified if found plagiarised
- The student will be assessed on her capacity to define a topic for examination, to articulate a coherent scheme for examining this topic, to gather the necessary information, and to analyse and present this information in a way that satisfactorily assesses the topic that she has set herself.

FORMAT

- The dissertation must be word-processed in the prescribed format.
- The main part of the dissertation must be double-spaced. Footnotes and bibliography should be single-spaced.
- Margins on the top, right and bottom of the page should be 1" each, with a minimum of 1.5" on the left margin to allow for binding.
- The dissertation should contain the following elements:

- **Title page:** This must state the title of the dissertation, the name and department number of the student, and the statement:

Dissertation submitted to Stella Maris College (Autonomous)
in partial fulfilment of the requirements for the degree of
Master of Arts, History of Fine Arts

Department of Fine Arts
Stella Maris College (Autonomous)
Chennai 600086
[year-year]

- **Certificate:**

This is to certify that the dissertation [Title], submitted in partial fulfillment of the requirements for the award of the Degree of Master of Art in the History of Fine Arts is the record of work done by [name of student] under the guidance and supervision of [faculty supervisor] in the Department of Fine Arts, Stella Maris College, Chennai, during the period of her study in the years [year-year].

Date:

Place:

[Name of Student]

Head of the Department
Department of Fine Arts
Stella Maris College
Chennai 600 086

Supervisor
Department of Fine Arts
Stella Maris College
Chennai 600 086

Principal
Stella Maris College
Chennai 600 086

- **Declaration:** Students must sign the following declaration:

I hereby declare that the dissertation [Title], submitted by me in partial fulfilment of the requirements for the Masters Degree in the History of Fine Arts is the record of research work done by me during the academic year [year-year], and this dissertation has not been offered for any other course of study. I undertake that all material presented for examination is my own work and has not been written for me, in whole or in part by any other person.

Date:

Place:

[Name of Student]

- **Acknowledgements:** The student may wish to acknowledge any help that she received in the preparation of her dissertation.
- **Table of contents:** This must list the contents of the dissertation by chapters, with sections where appropriate, and the page number for each, together with the page numbers for the notes, bibliography and images. A list of illustrations is to be provided if required.

- **Abstract:** This must provide a brief statement (not more than 200 words) of the main themes or findings of the dissertation.
- **Main text:** Each main heading (introduction, chapters, conclusion, references, bibliography) must start on a new page. Sections within chapters may continue on the same page. The number of pages should be restricted to a minimum of 45 and maximum of 50, from introduction to conclusion, and not including bibliography.
- **References:** Footnotes should be numbered consecutively and the references to which they refer should be placed either at the bottom of the relevant page or at the end of the dissertation, and before the bibliography. If required, a glossary is to be provided following References.
- **Bibliography:** The bibliography must list all works used in the preparation of the dissertation, including all those noted in the references. A complete bibliography of all resources used/referred to must be attached to the work
- **Images:** Only one or two images to be placed per page with image numbers and captions.

VIVA VOCE

- The student will appear for a viva voce to ascertain the authenticity of the work and whether she has independently and thoroughly researched the topic. The student is expected to demonstrate ability to analyse/evaluate her own work and conclusions as well as demonstrate knowledge of the subject.

EVALUATION

Continuous assessment

- Meetings and discussions with supervisor 50 marks

Final assessment: to be marked by supervisor and external examiner

- Dissertation 40 marks
- Viva voce 10 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI- 600 086
M. A. DEGREE
BRANCH X -HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 - 2016)

TEXTILE DYEING AND PRINTING – PRACTICAL

CODE: 15FA/PE/P124

CREDITS: 4

LTP: 2 0 3

TOTAL TEACHING HOURS: 65

OBJECTIVE

- To create an awareness of fabric dyeing and printing processes

Unit 1 Dyes and Pigments	(2 hrs.)
Unit 2 An overview of Textile Printing	(2 hrs.)
Unit 3 Stencil Printing	(18 hrs.)
Unit 4 Block Printing	(21 hrs.)
Unit 5 Tie-Dye: Knotting, Binding, Stitch Resist Techniques	(22hrs.)

EVALUATION

- There will be no end semester examination
- All course work will be periodically assessed through the semester for 100 marks

BOOKS FOR REFERENCE

Ghosh, G.K. and Shukla Ghosh. *Indian Textiles: Past and Present*. New Delhi: APH, 2011.

Green, David. *Fabric Printing and Dyeing*. London: Macgibbon and Kee, 1972.

Indian Textile Prints. Agile Rabbit Editions. Amsterdam: Pepin, 1999.

Maile, Anne. *Tie and Dye: As a Present Day Craft*. London: Mills and Boon, 1969.

Murphy, Veronica and Rosemary Crill. *Tie-Dye Textiles of India*. Ahmedabad: Mapin, 1991.

Prideaux, Vivien. *A Handbook of Indigo Dyeing*. Kent: Search, 2003.

Robinson, L. and Lowther R. *Stencilling*. London: Conran Octopus, 1995.

Robinson, Stuart and Patricia Robinson. *Exploring Fabric Printing*. London: Mills and Boon, 1970.

The Golden Hands Book of Popular Crafts. London: Marshall Cavendish, 1973.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
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BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

CREATIVE DESIGN - PRACTICAL

CODE: 15FA/PE/P234

CREDITS: 4

L T P: 2 0 3

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To give an exposure to basic design applications for varied uses and on varied supports

Unit 1 (10 hrs.)
Pottery Painting

Unit 2 (15 hrs.)
Fabric Painting

Unit 3 (15 hrs.)
Glass Painting

Unit 4 (10 hrs.)
Designing with Paper

Unit 5 (15 hrs.)
Designing with Recycled Materials

PATTERN OF EVALUATION

- There will be no end semester examination
- All course work will be periodically assessed through the semester for 100 marks

BOOKS FOR REFERENCE

Espi, Lorette. *Step-by-Step Pottery and Ceramics*. London: New Holland, 1995.

Fairbairn, Caroline. *An Introduction to Decorating and Glazing Pottery*. California: Thunder Bay, 1999.

Foster, Viv. *The Stained Glass Handbook*. London: Quantum, 2006.

Innes, Miranda. *Fabric Painting*. London: Dorling Kindersley, 1996.

Larbalestier, Simon. *The Art and Craft of Montage*. London: Mitchell Beazley, 1993.

Moor, Andrew. *Contemporary Stain Glass*. London: Mitchell Beazley, 1989.

Orthaus, Angelika. *A Creative Guide to Painting on Silk*. London: New Holland, 1994.

Owen, Cheryl. *The Practical Handbook of Card Making*. London: Hermes, 2008.

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M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

CRAFTS IN INDIA

CODE: 15FA/PE/CI44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide an awareness of craft traditions, mediation and revival in India
- To present an overview of select interventions that support craft communities and their work
- To provide an exposure to issues of sustainability and emerging concerns through case studies
- To understand the reach of craft to diverse market segments, with focus on select design interventions

Unit 1 (15 hrs.)

Overview of Craft Traditions

- 1.1 Textiles
- 1.2 Metal, wood, stone and clay
- 1.3 Paper and leather
- 1.4 Bamboo, cane and fibre

Unit 2 (10 hrs.)

Craft Mediation and Revival

- 2.1 The Khadi movement and its contemporary resurgence
- 2.2 Government policy and apex development bodies, Craftmark
- 2.3 Craft activists: Kamaladevi Chattopadhyay, Pupul Jayakar
- 2.4 Apex organisations: Crafts Council of India, Dastkar, Dastkaari Haat Samiti, All India Artisans and Craftworkers Welfare Association, Dastkar Andhra, Paramparik Karigar
- 2.5 Awards and recognition of craftspersons

Unit 3 (10 hrs.)

Economics of Craft and Emerging Concerns

- 3.1 Collective business enterprises and producer groups: WomanWeave, Sasha Association for Craft Producers, Urmul, Porgai, Dwaraka, Gramshree, Kala Raksha, Shrujan
- 3.2 Sustainability and ecological concerns: Malkha, Upasana, Industree, Avani Rangsutra
- 3.3 Capacity building and product diversification: Orupa
- 3.4 Challenges to the craft sector

Unit 4 (8 hrs.)
Marketing of craft

- 4.1 State emporia, craft bazaars and exhibitions
- 4.2 Retail chains: Fabindia, Good Earth, Anokhi, Bandhej, Mother Earth
- 4.3 Regional brands: Kalakshetra, Naturally Auroville, Kreedaa, Rehwa, Manjal, Anwasha, Ekmatra

Unit 5 (9 hrs.)
Luxury Retail and Design Entrepreneurs

- 5.1 Haute Couture: Neeru Kumar, Ritu Kumar, Rahul Mishra, Sabyasachi Mukherjee, Gaurang Shah, J J Vallya
- 5.2 Accessories: Amrapali, Ganjam, Roopa Vohra, Calonge, Hidesign, Trunks Company Jaipur
- 5.3 Home and décor: Jean-Francois Lesage, Shyam Ahuja, Gunjan Gupta, Sahil Bagga and Sarthak Sengupta, Sandeep Sangaru, Atul Johri

PATTERN OF EVALUATION

- There will be no end semester examination
- **Continuous Assessment:** **75 marks**
 - 2 Tests (20 marks each) 40 marks
 - Written assignment 20 marks
 - Seminar / craft review 15 marks
- **Evaluation of case study/ term paper by external examiner:** **25 marks**

BOOKS FOR REFERENCE

Chattopadhyay, Kamaladevi. *Handicrafts of India*. New Delhi: Indian Council for Cultural Relations, 1985.

Ghosh, G. K. and Shukla Ghosh. *Indian Textiles: Past and Present*. New Delhi: APH, 2011.

Jaitly, Jaya. *Crafts Atlas of India*. New Delhi: Niyogi Books, 2012.

Ranjan, Aditi and M. P. Ranjan. *Crafts of India: Handmade in India*. New Delhi: Council of Handicraft Development Corporations, 2007.

Singh, Martand, ed. *Handcrafted Indian Textiles*. New Delhi: Roli Books Pvt., Ltd., 2000.

Tyabji, Laila. *Threads & Voices: Behind the Indian Textile Tradition*. New Delhi: Marg, 2007.

Varadarajan, Lotika and Krishna Amin-Patel. *Of Fibre and Loom: The Indian Tradition*. New Delhi: Manohar, 2008.

Venkatesan, Soumhya. *Craft Matters: Artisans, Development and the Indian Nation*. New Delhi: Orient Blackswan, 2009.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

VISUAL CULTURE

CODE: 15FA/PE/VC44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To examine images and their meaning across disciplinary boundaries such as art history and media studies
- To create an awareness of visual culture through select theories

Unit 1 (5 hrs.)
Introduction to Visual Culture

Unit 2 (15 hrs.)
Image and Meaning
2.1 Sign and semiotics
2.2 Appropriation and cultural production

Unit 3 (15 hrs.)
Technologies and the Multiplying Image
3.1 The myth of photographic truth
3.2 Image reproduction: the copy
3.3 Walter Benjamin and mechanical reproduction

Unit 4 (15 hrs.)
Consumer Culture
4.1 Advertising and consumer societies
4.2 Commodity culture and commodity fetishism

Unit 5 (15 hrs.)
Visualising Gender
5.1 Cultural constructions of femininity and masculinity
5.2 Psychoanalysis of power and desire
5.3 Gaze and spectacle

PATTERN OF EVALUATION

- There will be no end semester examination
- **Continuous Assessment: 75 marks**
 - 2 Tests (20 marks each) 40 marks
 - Written assignment 10 marks
 - Seminar 15 marks
 - Reading and discussion 10 marks
- **Evaluation of term paper by external examiner: 25 marks**

BOOKS FOR STUDY

Sturken, Marita and Lisa Cartwright. *Practices of Looking: An Introduction to Visual Culture*, 2nd edition, New York: Oxford University Press, 2008.

Hall, Stuart, ed. *Representation: Cultural Representations and Signifying Practices*. London: Sage, 1997.

BOOKS FOR REFERENCE

Bantjes, Marian. *Pretty Pictures*. London: Thames and Hudson, 2013.

Berger, John. *Ways of Seeing*. London: BBC and Penguin, 1972.

Benjamin, Walter. *The Work of Art in the Age of Mechanical Reproduction*. trans. J.A. Underwood, London: Penguin, 2008.

Bird, Michael. *100 Ideas that Changed Art*. London: Laurence King, 2012.

Chandrasekhar, Indira, and Peter C. Seel, eds. *Body City: Siting Contemporary Culture in India*. Delhi: Tulika, 2000.

Kapur, Geeta. *When was Modernism: Essays on Contemporary Cultural Practice in India*. Delhi: Manohar, 2000.

Kromm, Jane, and Susan B. Bakewell, eds. *A History of Visual Culture: Western Civilisation from the 21st Century*. New York: Berg, 2010.

Mirzoeff, Nicholas. *An Introduction to Visual Culture*. London: Routledge, 2000.

Mirzoeff, Nicholas, ed. *The Visual Culture Reader*. London: Routledge, 1998.

Murthy, Laxmi, and Rajashri Dasgupta. *Our Pictures, Our Words: A Visual Journey through the Women's Movement*. New Delhi: Zubaan, 2011.

Ramaswamy, Sumathi. *Beyond Appearances. Contributions to Indian Sociology series*. New Delhi: Sage, 2003.

Schroeder, Jonathan E. *Visual Consumption*. Oxon: Routledge, 2002.

Sinha, Gayatri. *Art and Visual Culture in India: 1857-2007*. Delhi: Marg, 2009.

Walker John A. and Chaplin S. *Visual Culture: An Introduction*. Manchester: Manchester University Press, 1997.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

CRITICAL WRITING

CODE: 15FA/PE/CW24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce styles and approaches towards developing competency in writing about art through visual experience
- To develop critical thinking and writing skills

Unit 1		(3 hrs.)
Analytic and Critical Thinking		
1.1 Seeing and saying		
1.2 Subject matter and content		
Unit 2		(8 hrs.)
Style and Documentation		
2.1 The right word: denotation, connotation, concreteness		
2.2 Effective sentences and coherent paragraphs		
2.3 Citation styles: MLA and Chicago		
Unit 3		(4 hrs.)
Four Modes of Discourse		
3.1 Narration		
3.2 Description		
3.3 Exposition		
3.4 Argument		
Unit 4		(10 hrs.)
Formal Analysis		
4.1 Formal analysis vs. description		
4.2 Comparison and contrast		
Unit 5		(40 hrs.)
Writing about Art		

PATTERN OF EVALUATION

- There will be no end semester examination
- Evaluation will be based on continuous internal assessment of written assignments
- Assignments to be in the form of essay, exhibition review, catalogue entry and research paper
- **Continuous Assessment:** **75 marks**
 - Essay 20 marks
 - Exhibition review 15 marks
 - Catalogue entry 20 marks
 - Research paper 20 marks
- **Evaluation of term paper by external examiner:** **25 marks**

BOOKS FOR REFERENCE

Anderson, Jonathan, et al. *Thesis and Assignment Writing*. New Delhi: Wiley Eastern, 1992.

Barnet, Sylvan, *A Short Guide to Writing about Art*. 9th edition, New Jersey: Pearson Prentice Hall, 2008.

D'Alleva, Anne. *Look! The Fundamentals of Art History*. 3rd edition, New Jersey: Pearson Education, 2004.

Hudson, Suzanne and Nancy Noonan-Morrissey, *The Art of Writing about Art*. Belmont: Wadsworth, 2002.

Minor, Vernon Hyde. *Art History's History*, 2nd edition, New Jersey: Prentice Hall, 2001.

MLA Handbook for Writers of Research Papers. 7th edition, New York: Modern Language Association, 2009.

Podro, Michael. *The Critical Historians of Art*. New Haven and London: Yale University Press, 1982.

Skwire, David and Sarah Skwire. *Writing with a Thesis: A Rhetoric and Reader*. 8th edition, Fort Worth: Harcourt College Publishers, 2001.

Tyson, Lois. *Critical Theory Today: A User Friendly Guide*. 2nd edition, New York: Routledge, 2006.

William, Robert. *Art Theory: A Historical Introduction*, 2nd edition, West Sussex: Wiley-Blackwell, 2009.

WEB RESOURCE

The Chicago Manual of Style Online. www.chicagomanualofstyle.org

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

RESEARCH METHODOLOGY

CODE: 15FA/PE/RM24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To inculcate in students a sense of curiosity and scientific inquiry
- To gain knowledge on various research methods and tools of data collection
- To equip students with skills in designing scientific research
- To enable students write research papers, reports and a dissertation

Unit 1 (5 hrs.)

Introduction to Research

- 1.1 Scientific Research – Objectivity, Positivism, Empiricism, Relativism, Ethical Neutrality, Scepticism
- 1.2 Concept, Meaning and Definition of Research, Scientific Attitude, Analytical Thinking, Critical Thinking and Writing
- 1.3 Paradigms in Scientific Inquiry – Inductive and Deductive research
- 1.4 Types of Scientific Research
 - 1.4.1 Applied vs. Pure
 - 1.4.2 Quantitative vs. Qualitative
 - 1.4.3 Conceptual vs. Empirical

Unit 2 (10 hrs.)

Research Designs for Art

- 2.1 Art historical Research, Philosophical (theoretical), Comparative (cross-cultural)
- 2.5 Descriptive (using surveys, causal-comparative methods), Experimental (pre-, post-testing, ‘control’), Diagnostic, Explorative and Explanatory Research designs.
- 2.6 Naturalistic/Qualitative enquiry (Interpretative, Phenomenology, Ethnography, Biography, Grounded Theory)
- 2.7 Practical (creative, expressive / productive)
 - 2.7.1 Drawing, Painting, Sculpture, Architecture, Photography, Video Art

Unit 3 (15 hrs.)

Research Process

- 2.1 Defining and formulating a Research problem
- 2.2 Literature Review - Primary, Secondary and Tertiary sources
- 2.3 Conceptualizing a Research Design - developing concepts, constructs and variables, causal relationships, theoretical, conceptual and operational definitions and frameworks
- 2.4 Developing Hypotheses – functions and types, appropriateness of use

- 2.5 Constructing instruments for data collection
- 2.6 Selecting a Sample, collecting and processing data
- 2.7 Writing a Research Report

Unit 4 (15 hrs.)

Sampling Methods, Data Collection and Analysis

- 4.1 Sampling
 - 4.1.1 Probability Sampling
 - 4.1.2 Non Probability Sampling
 - 4.1.3 Mixed Sampling techniques
 - 4.1.4 Population and Unit of analysis
- 4.2 Data Collection Methods
 - 4.2.1 Primary sources - Observation, Interviews – Interview Schedule, Interview Guide, Focus Group Discussion, Brainstorming techniques, Questionnaires
 - 4.2.2 Secondary sources – books, journals, documents, records, mass media
 - 4.2.3 Strengths and Weaknesses of data collections methods
 - 4.2.4 Reliability and Validity of instruments
- 4.3 Data Analysis
 - 4.3.1 Scrutiny of data, coding and classifying data
 - 4.3.2 tabulation, simple frequency tables, percentages, graphs, diagrammatic presentations,
 - 4.3.3 Hypotheses Testing

Unit 5 (20 hrs.)

Thesis Writing

- 5.1 Style manuals, Writing for Art, Reviews, Exhibition Catalogues
 - 5.1.1 Layout, Structure and Language
- 5.2 Bibliography, Referencing and Citation
- 5.3 Research Ethics
 - 5.3.1 Copyright, Intellectual Property Rights, Plagiarism,
 - 5.3.2 Citation and Acknowledgements,
 - 5.3.3 Informed consent
 - 5.3.4 Reproducibility and Accountability

PATTERN OF EVALUATION

- There will be no end semester examination
- Evaluation will be based on continuous internal assessment of written assignments
- Assignments to be in the form of essay, literature review, abstract and research paper
- **Continuous Assessment: 75 marks**

Essay	15 marks
Literature review	20 marks
Abstract	10 marks
Research paper	30 marks
- **Evaluation of term paper by external examiner: 25 marks**

BOOKS FOR REFERENCE

Anderson, Jonathan, et al. *Thesis and Assignment Writing*. New Delhi: Wiley Eastern, 1992.

MLA Handbook for Writers of Research Papers. 7th edition. New York: Modern Language Association, 2009.

Skwire, David and Sarah Skwire. *Writing with a Thesis: A Rhetoric and Reader*. 8th edition. Fort Worth: Harcourt College, 2001.

WEB RESOURCE

The Chicago Manual of Style Online. www.chicagomanualofstyle.org

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

CREATIVE PHOTOGRAPHY – PRACTICAL

CODE: 15FA/PE/P214

CREDITS: 4

L T P:2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To explore the creative dimension of digital photography
- To provide skills in image enhancement using computer software

Unit 1 (15 hrs.)

Exploring Composition

- 1.1 Geometric shadows
- 1.2 Organic forms and textures

Unit 2 (15 hrs.)

Elements and Principles of Design

- 2.1 Layering photographic images
- 2.2 Box design
- 2.3 White on white
- 2.4 Colour

Unit 3 (15 hrs.)

Interpretation

- 3.1 Still life
- 3.2 Landscape
- 3.3 Symbols and imagery
- 3.4 Magnification
- 3.5 Reflection

Unit 4 (18 hrs.)

Digital Storytelling

- 4.1 Family history
- 4.2 Self portrait as an industrial product
- 4.3 Story/poem imagery

Unit 5 (15 hrs.)

Abstraction

- 5.1 Photography and mind's eye

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic classroom process, and at final critiques. Assessment will focus on conceptual, technical and creative abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document design process and development
- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal	10 marks
Course work	40 marks

- **End Semester Evaluation:** Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Ang, Tom. *Digital Photographer's Handbook*. London: Penguin, 2009.

Ang, Tom. *Digital Photography: A Step-By-Step Guide to Creating and Manipulating Great Images*. London: Mitchell Beazley, 2001.

Busch, David D. *Mastering Digital SLR Photography: The Serious Photographer's Guide to High-Quality Digital SLR Photography*. Boston: Thomson Course Technology, 2005.

Freeman, John. *Practical Photography: How to Get the Best Picture Every Time*. London: Hermes, 2001.

Hope, Terry. *Better Picture Guide to Black and White Photography 2*. Switzerland: Rotovision, 2001.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

DIGITAL PHOTOGRAPHY– PRACTICAL

CODE: 15FA/PE/P114

CREDITS: 4

L T P: 2 0 4

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To explore the various dimensions of digital photography
- To provide skills in image enhancement using computer software

Unit 1 (8 hrs.)
Basics of Image Editing

Unit 2 (10 hrs.)
Photographic Composition
2.1 Composition
2.2 Rule of thirds, centre of interest
2.3 Foreground and background
2.4 Light, positive and negative space
2.5 Balance, texture and pattern

Unit 3 (20 hrs.)
Manipulation
3.1 Colourisation of black and white photographs
3.2 Restoration
3.3 Filters

Unit 4 (20 hrs.)
Collage and Montage

Unit 5 (20 hrs.)
Theme-based Photography

PATTERN OF EVALUATION

- There will be no end semester examination
- Coursework will be evaluated as a systematic classroom process, and at final critiques. Assessment will focus on conceptual, technical and creative abilities, presentation skills and completion of work to meet deadlines
- A journal should be maintained to document design process and development
- **Continuous Assessment:** A journal and prescribed coursework completed and presented to the course teacher on scheduled dates during the semester will be evaluated for 50 marks

Evaluation components

Journal 10 marks

Course work 40 marks

- **End Semester Evaluation:** Course work prescribed for end semester submission will be assessed at a critique conducted by the course teacher and external examiner for 50 marks

BOOKS FOR REFERENCE

Ang, Tom. *Digital Photographer's Handbook*. London: Penguin, 2009.

Ang, Tom. *Digital Photography: A Step-By-Step Guide to Creating and Manipulating Great Images*. London: Mitchell Beazley, 2001.

Busch, David D. *Mastering Digital SLR Photography: The Serious Photographer's Guide to High- Quality Digital SLR Photography*. Boston: Thomson Course Technology, 2005.

Clec'h, Marie- Laure, trans. *Photo Retouching with Photoshop: A Designer's Notebook*. California: O'Reilly Media, 2005.

Hope, Terry. *Better Picture Guide to Black and White Photography 2*. Switzerland: Rotovision, 2001.

Larbalestier, Simon. *The Art and Craft of Montage*. London: Mitchell Beazley, 1993.

London, Barbara, and Jim Stone. *A Short Course in Digital Photography*. New Jersey: Pearson Education, 2010.

Warren, Bruce. *Photography*. 2nd ed. New York: Delmar, 2002.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE

BRANCH X - HISTORY OF FINE ARTS

SYLLABUS

(Effective from the academic year 2015 -2016)

INDIAN ICONOGRAPHY – INDEPENDENT ELECTIVE

CODE: 15FA/PI/IC24

CREDITS: 4

OBJECTIVE OF THE COURSE

- To provide an understanding of Buddhist, Hindu and Jain iconography

Unit 1
Introduction to the Study of Iconography

Unit 2
Terms and Symbols
2.1 Mudras or Hastas
2.2 Āsanas
2.3 Vāhanas
2.4 Tāla
2.5 Attributes: objects and weapons

Unit 3
Buddhist Iconography
3.1 Buddha images
3.2 Bodhisattvas
3.3 Buddha Shakthis

Unit 4
Hindu Iconography
4.1 Brahmā
4.2 Śiva
4.3 Vishnu
4.4 Devi/Shakthi

Unit 5
Jain Iconography
Thirthankaras

PATTERN OF EVALUATION

END SEMESTER EXAMINATION

Total Marks: 100

Duration: 3 Hours

QUESTION PAPER PATTERN

Section A: 4 x 10 = 40 marks (4 out of 6 questions to be answered)

Section B: 3 x 20 = 60 marks (3 out of 4 questions to be answered)

BOOKS FOR STUDY

Moore, Albert C. *Iconography of Religions: An Introduction*. London: SMC Press, 1977.

Gupte, R.S. *Iconography of Hindus Buddhists and Jains*. Bombay: D.B. Taraporevala, 1972.

BOOKS FOR REFERENCE

Bhattacharyya, Benoytosh. *Indian Buddhist Iconography*. Calcutta: K. L. Mukhopadhyay, 1968.

Rao, S. K. Ramachandra. *Pratima- Kosha: Encyclopaedia of Indian Iconography*. 6 vols. Bangalore: Kalpatharu Research Academy, 1992.

Rao, S. K. Ramachandra. *The Icons and Images in Indian Temples*. Bangalore: G K Ananthram IBH Prakashana, 1981.

Pandey, Deena Bandhu. *Notes on Indian Iconography*. Varanasi: Kishor Vidya Niketan, 1978.

Vasini, Kamala A. *Iconography of Siva*. New Delhi: DK, 1992.

Rao, Gopinatha T. A. *Elements of Hindu Iconography*. 2 vols. Varanasi: Indological Book House, 1971.

Coomaraswamy, Ananda K. *Elements of Buddhist Iconography*. New Delhi: Munshiram Manoharlal, 1972.

Reddy, V. N. K. *Eastern and Western Philosophy: An Introduction*. Delhi: Bharatiya Vidya Prakasham, 1980.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE
BRANCH X - HISTORY OF FINE ARTS

SYLLABUS
(Effective from the academic year 2015 -2016)

INDIAN AESTHETICS AND PHILOSOPHY– INDEPENDENT ELECTIVE

CODE: 15FA/PI/IP24

CREDITS: 4

OBJECTIVE OF THE COURSE

- To provide an understanding of Indian aesthetics and major philosophies and their development

Unit 1

Introduction to Indian Aesthetics and Philosophy

Unit 2

Vedic Schools of Philosophy

- 2.1 Nyāya: Valid Knowledge through Logical Criticism
- 2.2 Vaiśeṣika: Analysis of the Aspects of Reality
- 2.3 Sāṅkhya: A Dualistic Theory
- 2.4 Yoga: Practical Disciplines for Knowing the Self
- 2.5 Pūrva-Mīmāṃsā: Freedom Through the Performance of Duty
- 2.6 Vedānta: Absolutistic and Theistic

Unit 3

Non -Vedic Schools of Philosophy

- 3.1 Buddhism: Transcendence of Suffering
- 3.2 Jainism: The Doctrines of Bondage and Release

Unit 4

Indian Aesthetics: Rasa Theory

Bharata, Bhattanayaka, Abhinavagupta

Unit 5

Aesthetic Theories

Ananda K. Coomaraswamy, Rabindranath Tagore

PATTERN OF EVALUATION

END SEMESTER EXAMINATION

Total Marks: 100

Duration: 3 Hours

QUESTION PAPER PATTERN

Section A: 4 x 10 = 40 marks (4 out of 6 questions to be answered)

Section B: 3 x 20 = 60 marks (3 out of 4 questions to be answered)

BOOKS FOR STUDY

Hiriyanna, M. *The Essentials of Indian Philosophy*. New Delhi: Motilal Banarsidass, 1995.

Tigunait, Pandit Rajmani. *Seven Systems of Indian Philosophy*. Pennsylvania: The Himalayan International Institute of Yoga, 1983.

Barlingay, S. S. *A Modern Introduction to Indian Aesthetic Theory*. New Delhi: D.K. Printworld, 2007.

BOOKS FOR REFERENCE

Campbell, Joseph, ed. *Heinrich Zimmer: Philosophies of India*. New Delhi: Motilal Banarsidass, 2000.

Ghosh, Ranjan K. *Great Indian Thinkers on Art: Creativity, Aesthetic Communication and Freedom*. Delhi: Black & White, 2006.

Jhanji, Rekha. *Aesthetic Meaning: Some Recent Theories*. New Delhi: Ajanta, 1980.

Sharma, K.K. *Rabindranath Tagore's Aesthetics*. New Delhi: Abhinav, 1988.

Sheikh, Gulam Mohammed. et al. *'Paroksha' Coomarasamy Centenary Seminar Papers*. New Delhi: Lalit Kala Akademi, 1984.

Tagore, Rabindranath. *Some Notes on Indian Artistic Anatomy and Sadanga or the Six Limbs of Painting*. Calcutta: Indian Society of Oriental Art, 1968.

Tagore, Rabindranath. *The Meaning of Art*. New Delhi: Lalit Kala Akademi, 1983.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTERNATIONAL HISTORY 1648-1945

CODE: 15IS/PC/IH14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To provide the students with a historical background to International Relations
- To comprehend the working and process of diplomacy
- To understand the emergence of the contemporary global order

Unit 1

The Role of the State in International Affairs

(12 hrs.)

- 1.1 The State
- 1.2 The Church –State Relations
- 1.3 Emergence of the Westphalian State
- 1.4 Imperialism and Colonialism
- 1.5 Mercantilism and Foreign Trade

Unit 2

Revolutions in Europe and America in the 18 Century

(12 hrs.)

- 2.1 The Age of Reason - Hobbes, Locke and Rousseau
- 2.2 The Industrial Revolution
- 2.3 The American Revolution
- 2.4 The French Revolution
- 2.5 Revolutions and the Nation State

Unit 3

Age of Diplomacy

(15 hrs.)

- 3.1 Congress of Vienna – The Success of Metternich
- 3.2 Emergence of Balance Of Power Politics- Concert of Europe
- 3.3 Unification of Italy- Cavour
- 3.4 Unification of Germany and Alliance System- Bismarck
- 3.5 Alliances and Counter Alliances

Unit 4

World War I (1914-18)

(13hrs.)

- 4.1 International Setting at the outbreak of the World War
- 4.2 Major Powers and their Policies
- 4.3 Causes and Course of the War -Treaty of Versailles
- 4.4 Establishment of the League of Nations and its achievements
- 4.5 Failure of the League of Nations

Unit 5

World War II (1939-45)

(13hrs.)

5.1 Interwar Period: 1918-39

5.2 Emergence of Fascism, Nazism and Militarism

5.3 Causes and Course of the World War II

5.4 War Time Conferences-The Atlantic Charter, Yalta, Potsdam and San Francisco and the establishment of the UN

5.5 Collective Security

BOOKS FOR REFERENCE

Bartlett, C.J. *The Global Conflict*. U.K: Longman, 1994.

Baycroft, Timothy. *Nationalism in Europe (1789-1945)*. London : Cambridge University Press, 1999.

Carlton J.H Hayes, *World History*, London: Macmillan and Co Ltd, 1950

Carr E.H. *The Twenty Years' Crisis 1919-1939: An Introduction To The Study of International Relations*. U.K: Palgrave, 1939.

Cornwell R.D. *World History In The Twentieth Century*. London: Longman, 1975.

Craig Gordon A. Abhilasha Kumar. *Europe 1815-1914*. New York: Dryden Press, 1979.

Gordon Martel. *A Companion to International History 1900-2001*. London: Blackwell, 2007.

Grant A.J. *Europe In The 19th And 20th Centuries (1815-1939)*. New York: Oxford University Press, 1969.

Grenville J.A.S *Europe Reshaped 1848-1878*. New York: Oxford University Press, 1990.

Holsti, K. J. *International Politics: A Framework for Analysis*. 7th ed. Prentice – Hall, 1995.

Kennedy, Paul. *Rise and Fall Of the Great Powers*. NY: Random House, 1987.

Keylor, William R. *The Twentieth Century World: An International History*. New York: Oxford University Press, 1984.

Nye, Jr., Joseph S. *Understanding International Conflict: An Introduction to Theory and History*. New York: Longman, 1997.

Rosenau J.N. *World Politics*. New York: Free Press, 1976.

Settar, S. *World History*. New Delhi: Macmillan India, 1977.

Sperber. *Revolutionary Europe, 1780-1850*. London: Longman Pub Group, 2000.

Walsh, Edmund Aloysius, Duggan, Stephen Pierce Hayden. *The History and Nature of International Relations*. New York: Macmillan Company, 1922.

Williams, Marc. *International Relations in the Twentieth Century: A Reader*. New Delhi: Macmillan Education, 1989.

Journals

jia.sipa.columbia.edu

www.palgrave-journals.com/jird/

ejt.sagepub.com/

journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

journals.cambridge.org/jid_RIS

irap.oxfordjournals.org/

cjjp.oxfordjournals.org/

onlineibrary.wiley.com > ... > [General & Introductory Political Science](#)

www.tandfonline.com

www.academicjournals.org/journal/AJPSIR

www.journals.aau.dk/index.php/jci

WEB RESOURCES

www.worldaffairsjournal.org/

www.foreignaffairs.com/

www.nus.edu.sg/iro/

www.lse.ac.uk/internationalRelations/Home.aspx

www.international-relations.com/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: $20 \times 2 = 40$ (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: $10 \times 1 = 10$ (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks ($20 \times 5 = 100$)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015– 2016)

INTERNATIONAL RELATIONS SINCE 1945

CODE: 15IS/PC/IR14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint the students with present trends and dynamics in International Relations
- To highlight the geo -political, geo-strategic and geo -economic perspectives in the international system
- To create an awareness about the changing global order

Unit 1

Cold War Origins And Development

(14 hrs.)

- 1.1 Emergence of the Cold War: Growing Confrontation in the Grand Alliance 1945-1947
- 1.2 Decolonisation 1945-1953
- 1.3 Nuclear Bipolarity; Causes, Dynamics and Outcomes
- 1.4 Conflicts During the Cold War – Berlin -1948, 1961, Korea 1953, Cuba 1961, Vietnam 1954-1972, Afghanistan 1979
- 1.5 Cold War Regional Alliances; WARSAW Pact, NATO, SEATO, CENTO

Unit 2

Systemic Transformation in the Post War Period- DÉTENTE ERA 1972-89(14 hrs.)

- 2.1 Geo-political and Geo-strategic Transformations
- 2.2 Emergence of the Strategic Triangle
- 2.3 Sino Soviet war
- 2.4 Sino US Normalization
- 2.5 Arms Control and disarmament

Unit 3

The New World Order

(12 hrs.)

- 3.1 Decline of Soviet Communism and Disintegration of USSR
- 3.2 CIS – Emergence of Central Asia
- 3.3 European Integration –from EC to European Union
- 3.4 NATO Partnership for Peace-Forward Expansion
- 3.5 The Balkans and disintegration of Yugoslavia

Unit 4

Unipolar Movement

(12 hrs.)

- 4.1 Rise of American Hegemony
- 4.2 The Gulf War I and II - Issues and Concerns
- 4.3 Conflict Zones - The Middle East, Balkans, Central Asia
- 4.4 US Rebalancing and Pivot to Asia Policy
- 4.5 Stability and Instability in the Developing World.

Unit 5

The World at the turn of the Century

(13 hrs.)

- 5.1 International Terrorism, Fundamentalism and Counter Responses
- 5.2 Globalisation: Challenges and opportunities
- 5.3 Issues of Environment and Climate Change
- 5.4 Rise of Ethno Nationalism
- 5.5 The Emerging Global Order in the 21st century

BOOKS FOR REFERENCE

- Allison T Graham. *Essence of Decision: Explaining The Cuban Missile Crisis*. 2 edition U.K: Longman, 1999.
- Bache Ian , George Stephen. *Politics in the European Union*. 2 edition, New York: Oxford University Press, 1999.
- Bartlett, C.J. *The Global Conflict*. U.K.: Longman, 1994.
- Brodie, Bernard. *War and Politics*. U. K: Longman. 1974.
- Calvocoressi, Peter. *World Politics 1945-2000*. U.K: Longman, 2000.
- Cini, M. *The European Union Politics*, Manchester: 2 Edition Oxford University Press, 1996.
- Dunbabin, John. *International Relations Since 1945*. 2 Vols. U.K.: Longman, 1994.
- Freedman, Lawrence, Karsh Efraim. *The Gulf Conflict, 1990-1991: Diplomacy and War in the New World Order*. New York: Oxford University Press, 1993
- Goldstein S Joshua. *International Relations*. U.K: Longman, 2005.
- Hastedt P. Glenn. *International Politics, Enduring Concepts of Contemporary Issues*. U.K: Longman, 2003.
- Karsh Efraim. *The Tail Wags the Dog: International Politics and the Middle East*. USA: Bloomsbury 2015
- Mcaulay Martin. *Russia, America And The Cold War 1945-1991*. London: Longman, 1998.
- McCauley Martin. *Afghanistan And Central Asia : A Short History*. U.K: Longman, 2002.
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- Nye S Joseph. *Understanding International Conflict: An Introduction To Theory and History*. U.K : Longman, 2000.
- Papp Daniel S. *Contemporary International Relations: Frameworks for Understanding*. U.K:

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Raymond Duncan, W. *World Politics In The 21st Century*. U.K:Longman, 2004.

Richard K Betts. *Conflict After The Cold War*. U.K: Longman, 2005.

Robert J Art. *International Politics: Enduring Concepts And Contemporary Issues*. U.K:

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www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A:20x2=40 (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B:10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTERNATIONAL SECURITY

CODE: 15IS/PC/IS14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To gain a basic understanding of the relevance of Security Studies
- To understand the changing nature of contemporary warfare
- To explore the dynamics of International Security in the Twenty First Century

Unit 1

The Dynamics of National Security

(13hrs.)

- 1.1 Definition, Nature and Scope
- 1.2 National Power and National Security
- 1.3 Securitisation
- 1.4 State and Security: Liberal, Authoritarian, Failed
- 1.5 Emerging paradigms of Security: International Security and Human Security

Unit 2

The Nature and Significance of Security Studies

(13 hrs.)

- 2.1 Nature and Significance of Security Studies
- 2.2 Emergence of Security Studies: Traditional vs. Copenhagen
- 2.3 Emergence of Classical Strategic thought: Kautilya, Sun Tzu, Clausewitz
- 2.4 Emergence of Contemporary Strategic thought: Kenneth Waltz, Barry Buzan
- 2.5 Approaches to Security and Foreign Policy

Unit 3

Typologies of International Conflict

(13 hrs.)

- 3.1 Definition and nature of Conflict
- 3.2 Levels of Analysis in conflict
- 3.3 Typologies of Conflict: Interstate, Intra state, Regional Conflict
- 3.4 Conventional Vs Unconventional
- 3.5 Low Intensity Conflict: Insurgency, Proxy war, Left wing Extremism, Guerilla warfare.

Unit 4

The Nature and Significance of Contemporary Warfare

(13 hrs.)

- 4.1 Changing dynamics of warfare
- 4.2 The Military-Industrial Complex
- 4.3 Revolution in Military Affairs and Technical Military Revolution
- 4.4 Cyber and Internet Warfare
- 4.5 Electronic warfare

Unit 5

Evolving threat and New Security Domains

(13 hrs.)

- 5.1 Proliferation: Small Arms and WMDs and International Security
- 5.2 International Terrorism
- 5.3 Health and Pandemics
 - 5.4 International Migration
 - 5.5 Environmental Security

BOOKS FOR REFERENCE

- Ayoob, Mohammed. *The Third World Security Predicament*. U.K: Boulder Co. Lynne Rienner, 1995.
- Boesche Roger. *The First Great Political Realist: Kautilya and His Arthashastra*.
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- Booth, Ken. *New Thinking about Strategy and International Security*. London: Harper Collins, 1991.
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- Buzan, Barry. *An Introduction to Strategic Studies, Military Technology and International Relations*.
New York: St. Martin's Press, 1987.
- Carl Von Clausewitz, J J Graham, *On War*, U.K: Taylor and Francis, 2005.
- Freedman Lawrence. *Strategy: A History*. New York: OUP, 2013.
- Kautilya. *Arthshastra*
- Kenneth Waltz. *Man, State and War: A Theoretical Analysis*. U.K: Columbia University Press,
1959.
- Klane, Michael T. *World's Security: Trends And Challenges At The Century's End*. U.K: St.
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- Maroof Raza. *Low Intensity Conflicts: The New Dimension To India's Military Commitments*.
Meerut: Karthikeya Publishers, 1995.
- Martin Van Creveld. *The Changing Face Of War: Lessons Of Combat From The Marne To Iraq*.
U.K: Random House, 2007.
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- Peter Hugh. *Understanding Global Security*. U.K: Pearson, 2004.
- Rangarajan, L.N. *Arthashastra*. New Delhi: Penguin Classics, 2000.
- Scott Sagan & Kenneth Waltz. *The Spread of Nuclear Weapons: A Debate Renewed*. New
York, W.W Norton & Company, 2003.
- Sun-Tzu's. *The Art of Warfare*. Modern Library Paper back, 2000.
- Thomas Schelling. *The Strategy of Conflict*. U.K: Cambridge University Press, 1980.

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onlinelibrary.wiley.com > ... > General & Introductory Political Science
www.tandfonline.com
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www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 20x2=40 (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: 10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTERNATIONAL POLITICAL ECONOMY

CODE: 15IS/PC/IP14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To explore the interaction between politics and economics in the international system
- To understand the effect of international institutions on economic relations
- To familiarise the student with the specific issues pertaining to developing countries in the context of International Political Economy

Unit 1

Introduction to IPE (13 hrs.)

- 1.1 Meaning of International Political Economy
- 1.2 Schools of IPE-Mercantilism, Liberalism and Marxism
- 1.3 Emergence of International Political Economy
- 1.4 Institutions of International Political Economy
- 1.5 Interaction of the Global Political and the Global Economic Orders.

Unit 2

International Trade System

(13hrs.)

- 2.1 Emergence of a multilateral trading system
- 2.2 Regionalism and Multilateralism
- 2.3 GATT
- 2.4 WTO
- 2.5 Globalisation of the World Economy

Unit 3

Domestic Responses

(13hrs.)

- 3.1 Protection -tariffs, quotas, VRS, NTBs
- 3.2 Free Trade vs. Protection
- 3.3 North - South divide
- 3.4 NIEO
- 3.5 Balance of Trade and Balance Of Payments

Unit 4

International Monetary System (13hrs.)

- 4.1 Origins- Bretton Woods
- 4.2 The IMF-Functions and Criticism
- 4.3 The World Bank - Functions and Criticism
- 4.4. International financial Institutions and structural Adjustments
- 4.5 Politics of Lending

Unit 5

Developing Countries and the International Political Economy

(13hrs.)

- 5.1 Foreign Direct Investment in Developing Economies
- 5.2 Developing Country Debt
- 5.3 Dependence and Interdependence
- 5.4 Financial Crises and Stabilisation.
- 5.5 Globalisation and Developing Countries

BOOKS FOR REFERENCE

Burch, Kurt and Robert Allen Denmark. *Constituting International Political Economy*. Colorado: Lynne Rienner Publishers, 1997.

Dunn and Chase, Christopher K. ed. *The Historical Evolution of the International Political Economy*. U.K: Edward Elgar Publication. Co, 1995.

Friedens, Jeffrey & Lake, David. *International Political Economy: Perspectives on Global Power and Wealth*. U.K.:Routledge, 2000.

Gilpin, Robert. *Global Political Economy: Understanding the International Economic Order*. U.K.: Orient Blackswan, 2003.

Hoekman, Bernard M. *The Political Economy Of The World Trading System The WTO And Beyond*. New Delhi: Oxford University Press, 2001.

Ian, Clark. *Globalisation and Fragmentation: International Relations in the Twentieth Century*. U.K: Oxford University Press, 1997.

Krasner, Stephen D. *International Régimes*. New York: Cornell University Press, 1983.

Lipson, Charles and Cohen, Benjamin J. *Theory And Structure In International Political Economy: An International Organization Reader*. USA: MIT Press, 2004.

Miller, Raymond C. *International Political Economy: Contrasting World Views*. U.K.: Taylor & Francis Group, 2008.

Oatley, Thomas. *International Political Economy: Interests And Institutions In The Global Economy*. U.K.: Pearson / Longman, 2003.

Seligson, Mithchell A. *Development and Underdevelopment: The Political Economy of Global Inequality*. New Delhi: Viva Books, 2004.

WEB RESOURCES

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www.icc.org

www.ictr.otg

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Journals

jia.sipa.columbia.edu

www.palgrave-journals.com/jird/

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PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 20x2=40 (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: 10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTERNATIONAL TERRORISM

CODE: 15IS/PE/IT14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE:

- To comprehend the concept of terrorism and its root causes
- To create an awareness about the increasing threats to human life and Property from terrorism
- To understand the evolution of international terror networks

Unit 1

History of Terrorism (10 hrs.)

- 1.1 Origins And History of Terrorism
- 1.2 Definition of Terrorism
- 1.3 Root Causes of Terrorism
- 1.4 Psychology of Terrorists
- 1.5 Internationalisation of Terrorism

Unit 2

Typology & Approaches to Terrorism (10 hrs.)

- 2.1 Ideology & Religion based Terrorism
- 2.2 State Sponsored Terrorism
- 2.3 Political Terrorism and Revolutionary Terrorism
- 2.4 Ethno-Nationalist Terrorism
- 2.5 Ecoterrorism, Bioterrorism, Narcoterrorism

Unit 3

Terrorist Groups and Case Study

(12 hrs.)

- 3.1 FARC Columbia , ETA, IRA
- 3.2 Al Qaeda, LeT, HizbulMujahideen, LTTE
- 3.3 Jemaah Islamiyah
- 3.4 Hezbollah, HAMAS
- 3.5 ISIS

Unit 4

State and Terrorism

(10 hrs.)

- 4.1 Terrorism & Democracy
- 4.2 Counter Terrorism Measures
- 4.3 Control of Terrorist Financing
- 4.4 US and Homeland Security
- 4.5 New Dimensions of International Terrorism in the 21st Century

Unit 5		
India and Terrorism	(10 hrs.)	5.1
Origins and Growth of Terrorism in India		
5.2 Cross Border Terrorism-Kashmir, North East India		
5.3 Insurgency and Naxalism		
5.4 Role of Security forces and Intelligence Agencies-RAW, IB, ATS		
5.5 Terrorism as a Challenge to Internal Security		

BOOKS FOR REFERENCE

Acharya Amitav. *Age of Fear : Power Versus Principle in the War on Terror*. New Delhi: Rupa, 2004

Bjorgo Tore. *Root causes of Terrorism: Myths, Reality and Ways Forward*. U K: Routledge Publication, 2005.

David Whittake J. *Terrorist And Terrorism In The Contemporary World*. UK: Routledge Publication, 2004.

Enders Walter. *The Political Economy of Terrorism*. U K: Cambridge University Press, 2006.

Gopa Kumar G. *International Terrorism In The Twenty-First Century*. New Delhi: Kanishka, Publishers, 2003

Gupta, K. R. *Anti Terrorism Laws, India, USA, the UK and Israel*. Volume 1 and 2, New Delhi: Atlantic Publishers, 2002.

Hoffman Bruce. *Inside Terrorism*. Columbia: Columbia University, 1983.

Kumar, Varma Adarsh. *Prevention of Terrorism from TADA to POTA*. New Delhi: Sterling, 2003.

Lutz, James M. *Global Terrorism*. London: Routledge, 2008.

Muni S.D. *Responding to Terrorism in South Asia*. New Delhi: Manohar, 2006.

Reich Walter, Walter Laqueur. *Origins of Terrorism: Psychologies, Ideologies, Theologies, State of Mind*. Washington DC: Woodrow Wilson Center Press, 2000.

Smith, Paul J. *Terrorism and Violence in South East Asia*. New York: M.E. Sharpe, 2005.

Subramanyam, Raju Adluri. *Terrorism in South Asia, View from India*. New Delhi: India Research Press, 2004.

WEB RESOURCES

U.S. Department of State: Counterterrorism Office, <http://www.state.gov/s/ct/>

Centre for the Study of Terrorism and Political Violence at the University of St. Andrews

<http://www.st-andrews.ac.uk/academic/intrel/research/cstpv/>

Council on American-Islamic Relations, <http://www.cair-net.org/>

UN Action Against Terrorism, <http://www.un.org/terrorism/>

EUROPOL: Counter Terrorism Unit,

http://www.europol.eu.int/index.asp?page=publ_terrorism&language=

Rand Corporation: Terrorism and Homeland Security Research Area

http://www.rand.org/research_areas/terrorism

What Do We Know About Militant Muslims?

<http://www.eicds.org/english/publications/saadarticles/2004/whatdoweknow.ht>

PATTERN OF EVALUATION

Continuous Assessment:

All essay type questions

Total Marks: 50

Duration: 90 mins.

Section A: 10x3=30 Answer any 3 out of 4 (in about 500 words)

Section B: 20x1=20 Answer any 1 out of 2 (in about 1200 words)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : 5x8=40 Answer any 5 out of 8 (in 200 words each)

Section B : 4x 10=40 Answer any 4 out of 7 (in 500 words each)

Section C: 1x20=20 Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015– 2016)

THEORIES AND ISSUES OF INTERNATIONAL RELATIONS

CODE: 15IS/PC/TR24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To appreciate the importance of theory
- To understand seminal theoretical concepts in IR
- To apply theoretical framework in the study of relations among States

Unit 1

Nature and Significance of International Relations Theory (13hrs.)

- 1.1 Nature and Scope of International Relations Theory
- 1.2 Evolution of International Relations Theory as an academic discipline
- 1.3 Political Philosophy and International Relations Theory
- 1.4 Anarchy and International Politics
- 1.5 Behaviouralism and International Relations theory

Unit 2

Theories of International Relations (20 hrs.)

- 2.1 Levels of Analysis
- 2.2 First Great Debate: A Realist Critique of Idealism, Second Great Debate- Methodological Debates
- 2.3 Realism / Neo Realism
- 2.4 Liberalism / Neo Liberalism
- 2.5 Constructivism / Constructivist Agenda

Unit 3

Seminal Concepts in International Relations (10hrs.)

3.1

Nationalism

- 3.2 Nation State
- 3.3 National Interest – Ideology, Foreign Policy, Defining Operational Criteria of National Interest
- 3.4 National Power
- 3.5 Transnational & Non State Actors

Unit 4

Seminal Processes in International Relations (10 hrs.)

- 4.1 Foreign Policy and Decision Making
- 4.2 Balance of Power Theory
- 4.3 Collective Security vs. Collective Defense
- 4.4 Arms Race and Disarmament
- 4.5 Ethics in International Relations

Unit 5

Critical Theories in International Relations

(12 hrs.)

5.1 Marxism

5.2 Feminism

5.3 Post Modernism

5.4 Policy making and International relations theory

5.5 Future of International Relations Theory

BOOKS FOR REFERENCE

Adam, Watson. *International Relations and the Practice Of Hegemony*. University of UK:

Westminster, 2002.

Booth, Ken & Smith Steve. *International Relations Theory Today*. Pennsylvania University Park:

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Boucher. *Political Theories of International Relations: from Thucydides to the Present*. U K:

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Brown C. *International Relations Theory Today*. UK :Palgrave Macmillan, 1992.

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Burchill S., & Linklater A (eds). *Theories of International Relations*. New York: Palgrave, 2001.

Buzan Barry & Richard Little. *International Systems In World History : Remaking The Study Of*

International Relations. U K: Oxford University Press, 2000.

Buzan Barry and Waever Ole. *Regions and Powers: The Structure of International Security*. UK:

Cambridge University Press, 2000.

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And International Security. London: Harper Collins, 2000

Columbis, Theodore & Wofe James. *Introduction to International Relations Peace and Justice*. New Delhi:

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Kegley, C.W and E. Wittkopf. *World Politics: Trend and Transformation*. New York: St. Martins

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Light, M., and A.J.R. Groom. *International Relations: A Handbook of Current Theory*.

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Luche Charles & Saide Abdul. *Concepts of International Politics in Global Perspective*. New Jersey: Prentice Hall, Engelwood and Cliffs, 1979.

Martin Hollis & Steve. *Explaining And Understanding International Relations*. UK: Oxford University Press, 1991.

Michael, Cos, Time Dunne & Ken Booth (eds.). *Empires, Systems and States Great Transformations In International Politics*. UK: Cambridge University Press, 2002.

Mingst, Karen A. *Essentials of International Relation*. New York: W. W. Norton and Company, 2004.

Patrick M. Morgan. *Deterrence Now*. UK: Cambridge University Press, 2000.

Rosenau, N. James, Klaus Knorr. *Contending Approaches to International Politics*. Princeton: Princeton University Press, 1969.

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journals.cambridge.org/jid_RIS
irap.oxfordjournals.org/
cjjp.oxfordjournals.org/
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www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 20x2=40 (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: 10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTERNATIONAL LAW – I

CODE: 15IS/PC/IL24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint the students with core concepts in International Law
- To study the interaction between International law and International Relations
- To emphasise the role and significance of the State and Statehood in International Law

Unit 1

Introduction (16 hrs.)

- 1.1 Evolution and Development of International Law
- 1.2 Definitions, Concepts and Basis of International Law
- 1.3 Sources of International Law
- 1.4 Municipal Law and International law
- 1.5 Classification and Codification of International Law

Unit 2

State and International Law

(16 hrs.)

- 2.1 Sovereignty
- 2.2 Territory and Jurisdiction
- 2.3 Recognition
- 2.4 Responsibility
- 2.5 Succession

Unit 3

The Individual in International Law (13 hrs.)

- 3.1 Individual Sovereignty vs. State Sovereignty
- 3.2 Nationality
- 3.3 Asylum
- 3.4 Extradition
- 3.5 Diplomatic Immunities and Privileges

Unit 4

International Justice System

(8 hrs.)

- 4.1 Formation and Structure -ICJ, ICC, Tribunals, Commissions
- 4.2 Jurisdiction- ICJ, ICC, Tribunals, Commissions
- 4.3 Functioning – Scope and Limitations- ICJ, ICC, Tribunals, Commissions
- 4.4 War Crime Tribunals and Special Courts – Rwanda, Former Yugoslavia
- 4.5 Dispute Settlement Mechanisms – Alternative Dispute Resolution, Negotiation, Arbitration.

Unit 5

India and International Conventions

(12 hrs.)

- 5.1 India and Treaty Compliance Mechanism
- 5.2 India and International Human Rights Conventions
- 5.3 India and International Environmental and Climate Conventions
- 5.4 India and International Conventions on Terrorism
- 5.5 India and Intellectual Property Rights Regime

BOOKS FOR REFERENCE

Agarwal, H.O. *International Law and Human Rights*. New Delhi: Central Law Publishers, 2002.

Armstrong, David. *International Law and International Relations*. London: Cambridge University Press, 2007.

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PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A:20x2=40 (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B:10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INDIA'S FOREIGN POLICY

CODE: 15IS/PC/IF24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To gain a deeper understanding of the determinants of India's foreign policy
- To comprehend the significance of leadership in formulation of foreign policy goals
- To understand the scope of India's foreign relations

Unit 1

Determinants and Objectives of India's Foreign Policy (13 hrs.) 1.1 Philosophical, Historical and Cultural Determinant

1.2 Geographical and Economic Determinants

1.3 Mission and Objective of India's Foreign Policy

1.4 Institutional Framework of India's Foreign policy-MEA, NSAB, MOD, CCS

1.5 India's Diplomacy

Unit 2

Operational Milieu of India's Foreign Policy (13 hrs.)

2.1 Regional Security environment-Threat Perception and Analysis

2.2 India's Missile and Nuclear Programme

2.3 Linkage between India's Foreign Policy and Defence Policy

2.4 India and Multilateral Frameworks –ASEAN and SCO

2.5 India and the International Order

Unit 3

Personality Factors and Influence on India's Foreign Policy (14 hrs.)

3.1 Nehru-Non Alignment, Kashmir, China

3.2 Indira Gandhi – NPT, Pokhran I, Bangladesh Liberation War, Merger of Sikkim & Rajiv Gandhi – Operation Brasstacks, Military Intervention – Sri Lanka, Maldives

3.3 P.V.Narasimha Rao – Look East Policy, Economic Liberalisation

3.4 A. B. Vajpayee- Pokhran II, Lahore Declaration, Kargil Crisis

3.5 Manmohan Singh –Indo- US Civilian Nuclear Deal

Unit 4

Major Issues in India's Foreign Policy (12 hrs.)

4.1 India and China- Boundary and Bilateral Issues

4.2 India and Pakistan- Boundary and Bilateral Issues

4.3 Kashmir Crisis, Cross Border Terrorism and CBMs

4.4 India and her Neighbours –Issues of Convergence and Divergence

4.5 India-USA-Strategic Partnerships

Unit 5

India's Foreign Relations

(13hrs.)

5.1 India- USSR and Russia

5.2 India- EU

5.3 India-West Asia

5.4 India-Central Asia

5.5 India –IOR

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Ashley J Tellis. *India's Emerging Nuclear Power and Posture*. U.K: Oxford University Press, 2001.

Asthana,V.*India's Foreign Policy and Sub Continental Politics*. New Delhi: Kanishka Publishers, 1999.

Bandhopadhyaya, J.*The Making Of India's Foreign Policy* New Delhi: Longman, 1976.

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Col. Ravi Nanda.*India and The Emerging Multipolar World*. New Delhi: Lancer Books, 2001.

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V Grover.*UNO, NAM, NIEO, SAARC and India's Foreign*. New Delhi: Policy. Deep and Deep Publication, 1992.

Heimsath, Charles & Mansingh, Surjit.*A Diplomatic History of Modern India*. New Delhi: Longman, 1971.

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NalinikantJha. *Domestic Imperatives of India's Foreign Policy*. New Delhi: South Asian Publishers, 2000.

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RadaramChakraborti. *Political Economy of India's Foreign Policy*, New Delhi: Sterling Publishers, 1990

Richard Sisson, Leo E., Ross. *Pakistan, India and Creation of Bangladesh*. USA: Berkeley press, 1991

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End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS
(Effective from the academic year 2015 – 2016)

RESEARCH METHODOLOGY

CODE: 15IS/PC/RM24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To prepare the students for research by making them aware of epistemology and ontology of research in International Relations
- To acquaint them with the research methods, sources of data, and the methods of data analysis and social science research
- To enable students draw up a research proposal.

Unit 1
Introduction to Research in International Relations **(13 hrs.)**

- 1.1. International Relations as a Social Science: Positivist and Post-positivist Approach.
- 1.2 Epistemology and Ontology of research in International Relations
- 1.3 Description, Explanation, Exploration, Interpretation
- 1.4 Review of Literature, Importance of Literature Review
- 1.5 Developing Research Questions, Importance of Research Questions.

Unit 2
Research Design and Data Collection **(13 hrs.)**

- 2.1. Theoretical Model, Methodological Models
- 2.2. Selection of the Units of Analysis, Sampling
- 2.3 Sources of Data Primary, Secondary and Tertiary sources, Triangulation
- 2.4 Documents, Types of Documents, Archives, Chronologies
- 2.5 Electronic Sources of data: Internet, Websites, Data sets

Unit 3
Quantitative Research **(15 hrs.)**

- 3.1 Concepts, Indicators, Variables, Operationalisation of Concepts, Levels of Measurements
- 3.2 Hypothesis, Inductive and Deductive Methods of reasoning. Theory-Hypothesis Relationships, Hypothesis Construction, Tests of Significance
- 3.3 Case Study Method
- 3.4 Survey Method, Interview, Questionnaire
- 3.5 Quantitative Data Analysis: Descriptive Statistics, Inferential Statistics

Unit 4
Qualitative Research **(13 hrs.)**

- 4.1 Design in Qualitative Research: feminism, Grounded Theory, Constructivism
- 4.2 Comparative methods and Historical methods

- 4.3 Qualitative Data and Content Analysis
- 4.4 Format of a Report: Journals, Synopsis, Conference, Websites, Books
- 4.5 Style of Writing-Bibliography

Unit 5

Writing of a Research Proposal

(11 hrs.)

- 5.1 Selection of a Problem
- 5.2 Review of Literature
- 5.3 Theoretical Model
- 5.4 Hypothesis, Concepts, Variables, Operationalisation , Measurement Model
- 5.5 Methods of Analysis

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- Emerson, Robert M. *Contemporary Field Research: A Collection of Readings*. Illinois: Waveland Press, Inc. Prospect Heights, 1983.
- Gibaldi, Joseph. *MLA Hand Book For Writers of Research Papers*. New Delhi: Affiliated East West Press Pvt Ltd, 2000.
- Kothari, H.C. *Research Methods in Social Sciences*. Wishwa Publications, 2000.
- Neuman, Lawrence. W. *Social Research Methods: Qualitative and Quantitative*. New Delhi: Approaches. Pearson Education. 2006.
- Pennings, Paul, Hans Keman and Jan Kleinnijenhuis. *Doing Research in Political Science: An Introduction to Comparative Methods and Statistics*. London: Sage Publications, 2006.
- Punch, Keith. F. *Introduction to Social Research: Quantitative and Qualitative Approaches*. London: Sage Publications, 2006.

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PATTERN OF EVALUATION

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Duration: 90 mins.

All essay type questions

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Third component:

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Case studies

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Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks ($20 \times 5 = 100$)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

CONFLICT AND COOPERATION IN SOUTH ASIA

CODE: 15IS/PC/SA34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To acquaint students with the discipline of South Asian Studies.
- To understand the politico-strategic importance of the region.
- To comprehend the complexity and dynamics of the region.

Unit 1

Introduction to South Asia

(10 hrs.)

- 1.1 South Asian Studies as a Discipline
- 1.2 Evolution of South Asian Studies
- 1.3 Importance of Geographic Location of South Asia
- 1.4 Politico-strategic Importance of South Asia
- 1.5 Indo-Centricity of South Asia

Unit 2

Characteristics of South Asian States

(12 hrs.)

- 2.1 Colonial Heritage
- 2.2 Post Colonial Problems of Development and Growth
- 2.3 Forms of Government in South Asia
- 2.4 Democratisation in South Asia
- 2.5 South Asia and the Cold War

Unit 3

Major Conflicts in South Asia

(20 hrs.)

- 3.1 Nature and Typologies of Conflict
- 3.2 Inter-state Wars
- 3.3 Proxy Wars and LIC
- 3.4 External Intervention
- 3.5 Sectarian and Ethnic Disputes –Sri Lanka

Unit 4

Economic Co-Operation In South Asia

(10 hrs.)

- 4.1 Evolution of SAARC
- 4.2 Structure and Objectives of SAARC
- 4.3 Major Achievements and Failures of SAARC
- 4.4 SAFTA and SAPTA
- 4.5 Relevance of SAARC

Unit 5

Nuclearisation of South Asia

(13 hrs.)

- 5.1 Pokhran I to Pokhran II
- 5.2 Nuclear Missile Build up in Pakistan
- 5.3 Role of External Forces in the Nuclearisation of South Asia
- 5.4 China in South Asia
- 5.5 South Asian perspectives of Nuclearisation of India and Pakistan

BOOKS FOR REFERENCE

- Amita Shastri & A. Jeyaratnam Wilson (ed). *The Post Colonial States of South Asia: Democracy, Identity, Development and Security*. U.K: Curzon Press, 2001.
- Constantine P. Danopoulos, Dharendra Vajpeyi, Amir Bar. *Civil-Military Relations, Nation Building, and National Identity: Comparative Perspectives*. U.K: Praeger, 2004.
- Craig Baxter, Yogendra K. Malik, Charles H. Kennedy, Robert C. Oberst. *Government and Politics in South Asia, Colorado*. USA: Westview Press, 1998.
- P. R. Chari, Pervaiz Iqbal Cheema, Stephen Philip Cohen. *Crises and a Peace Process: American Engagement in South Asia*. New Delhi: Harper Collins, 2008.
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- Kanti P. Bajpai, Stephen P. Cohen. *South Asia after the cold war: International Perspectives, Colorado*. USA: Westview Press, 1993.
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- Pradip K. Ghosh. *Developing South Asia: A Modernization Perspective*. USA: Greenwood Press, 1984
- P. R. Chari, Pervaiz Iqbal Cheema, Stephen Philip Cohen. *Perception, Politics, and Security in South Asia: the Compound Crisis of 1990*. UK: Routledge, 2003.
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PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 20x2=40 (2 essays out of 5 in 1500 words, each carrying 20 marks)

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Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS
(Effective from the academic year 2015 – 2016)

AMERICAN FOREIGN POLICY

CODE: 15 IS/PC/AF34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To create an understanding of American foreign policy in the past and the present.
- To use IR theory to evaluate the US foreign policy
- To familiarize the students with the influence of Presidents on US foreign relations

Unit 1

American Foreign Policy 1945 –End of Cold war (11hrs.)

- 1.1 Colony to Super power
- 1.2 US Foreign Policy and World War II
- 1.3 US Grand Strategy
- 1.4 Cold War Politics and United States
- 1.5 Super Power Collaboration & Confrontation

Unit 2

American Foreign Policy in the Post Cold War Era (12 hrs.)

- 2.1 Unipolarity and American Hegemony
- 2.2 NATO
- 2.3 American Dominance and Revolution in Military Affairs
- 2.4 Gulf War I and II
- 2.5 American Power and Globalisation

Unit 3

American Foreign Policy Making Institutions (12 hrs.)

- 3.1 Presidency
 - 3.2 Bureaucracy
 - 3.3 Congress
- 3.4 Interest groups and Public opinion
- 3.5 Media and American Foreign Policy

Unit 4

President and US Foreign Policy Making (15 hrs.)

- 4.1 Containment of Communism and Korea-Harry S.Truman, Dwight D Eisenhower
 - 4.2 Berlin and Cuba- John F.Kennedy
 - 4.3 Vietnam, Détente and China, Escalation and end of Cold war - Lyndon B.Johnson, Richard Nixon and Ronald Reagan
 - 4.4 Global War on Terror, Iran and Iraq -George .W. Bush
 - 4.5 Barack Obama- US Rebalancing/ Strategic Pivot to Asia

Unit 5

America's Policy Towards The World

(15 hrs.)

- 5.1 US policy towards Latin America- Nicaragua, Venezuela and Chile
- 5.2 US policy towards Russia
- 5.3 US policy towards Middle East
- 5.4 US policy towards China
- 5.5 US policy towards India and Pakistan

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- Bose Meena, Perotti Rosanna. *From Cold War To New World Order: The Foreign Policy Of George H. W. Bush*. USA: Greenwood Press, 2002
- Chittick, William O. *American Foreign Policy: A Framework For Analysis*. Washington DC: CQ Press, 2006
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- Malone, David M and Khong Yuen Foong. *Unilateralism and US Foreign Policy*. USA: Lynee Reinner Publication, 2002.
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- Vance C R. *Hard Choices: Critical Years in America's Foreign Policy*. USA: Simon & Schuster, 1983.

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End Semester Examination

Total Marks: 100

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5 essays out of 10.
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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTERNATIONAL LAW – II

CODE: 15IS/PC/IL34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To know core concepts and key institutions in International Humanitarian Law
- To familiarise the students with concepts in maritime and environmental laws
- To highlight the importance of Intellectual Property Rights as an emerging field of study

Unit 1

War & Neutrality

(18 hrs.)

- 1.1 Laws of Warfare-Land, Aerial, Naval Warfare
- 1.2 Emergence of International Humanitarian Law-Geneva Conventions
- 1.3 Treatment of Prisoners of War
- 1.4 Illegality of Nuclear Warfare
- 1.5 Neutral States – Rights and Duties

Unit 2

Maritime Law and Outer Space

(15 hrs.)

- 2.1 Changing concepts of Maritime Frontiers
- 2.2 Laws of the sea – UNCLOS I, II & III
- 2.3 Territorial Sea, Contiguous Zone, Continental Shelf, High Seas, EEZ
- 2.4 Archipelagic and Landlocked States, Deep-Sea Bed and Mining, ITLOS
- 2.5 Laws of Outer Space

Unit 3

International Environmental Law

(12 hrs.)

- 3.1 Guiding Principles of International Environmental Law
- 3.2 International environmental Legislations
- 3.3 State Responsibility
- 3.4 Conservation Laws and Bio-diversity Regimes
- 3.5 Marine Environment and its Protections

Unit 4

Intellectual Property Rights and Cyber law

(10 hrs.)

- 4.1 WIPO
- 4.2 The Intellectual Property Regime
- 4.3 Copyright, Patents, Trademark and Design
- 4.4 Laws of Cyberspace
- 4.5 Data Protection and the Internet – Cyber Security

Unit 5

Contemporary Issues in international Law

(10 hrs.)

- 5.1 Human Rights Law and International Law
- 5.2 Terrorism and Piracy and International Law
- 5.3 Science, Technology and International Law
- 5.4 New Developments in International Law
- 5.5 Future of International Law

BOOKS FOR REFERENCE

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ejt.sagepub.com/

journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

journals.cambridge.org/jid_RIS

irap.oxfordjournals.org/

cjp.oxfordjournals.org/

onlinelibrary.wiley.com > ... > General & Introductory Political Science

www.tandfonline.com

www.academicjournals.org/journal/AJPSIR

www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 20x2=40 (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: 10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

GOVERNMENT AND POLITICS OF THE MIDDLE EAST

CODE: 15IS/PE/ME14

CREDITS: 4

L T P:4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To familiarise students with the government and politics of Middle East
- To create an awareness about the geo strategic and geo economic imperatives of the region
- To provide an understanding about the Middle East peace process

Unit 1

State & Society of Middle East

(10 hrs.)

- 1.1 Emergence of Modern Middle East
- 1.2 The Society and Religion in the Middle East
- 1.3 The Economy in the Middle East
- 1.4 Emergence of Arab Nationalism
- 1.5 Identity Politics & Political Culture in the Middle East

Unit 2

State and Polity in the Middle East

(12 hrs.)

- 2.1 Egypt -Nationalisation and Politics of Modernisation
- 2.2 Iran and Theocracy
- 2.3 Iraq and Democratisation
- 2.4 Saudi Arabia and Wahhabism
- 2.5 Modern Israel

Unit 3

Extra Regional Actors in the Middle East

(10 hrs.)

- 3.1 Interests in the Middle East
- 3.2 US engagement in the Middle East
- 3.3 Russian involvement in the Middle East
 - 3.4 India and the Middle East
 - 3.5 Oil Politics and Middle East

Unit 4

Conflict and Peace Process in the Middle East

(10hrs.)

- 4.1 Conflicts of the Middle East -Arab-Israeli Wars
- 4.2 Iran - Iraq War
- 4.3 Gulf War I & II
- 4.4 US and Middle East Peace Process
- 4.5 UN and other countries in the Middle East Peace Process

Unit 5

Stability & Change in the Middle East

(10 hrs.)

- 5.1 Rise of Intifada
- 5.2 Democracy vs. Autocracy
- 5.3 Political Liberalization and Democratization
- 5.4 Challenges of economic development
- 5.5 Middle East and Terrorism

BOOKS FOR REFERENCE

- Ali, M Ansari. *Confronting Iran: The Failure Of American Foreign Policy And The Next Great Crisis In The Middle East*. New York: A member of the Persen Book Group, 2006.
- Freeman O Robert. *Soviet Policy towards the Middle Eat since 1970*. USA: Praeger, 1975.
- Goldberg H David, Paul Marantz. *The Decline of the Soviet Union and the Transformation of the Middle East*. US: West View Press, 1994.
- Hamid Ansari. *Travelling through conflict: Essay on the Politics of West Asia*. New Delhi: Pearson Longman, 2008.
- IvonDaalder, Nicole Gresotto, Philip Gordon (ed). *Crescent of Crisis: US-European Strategy for the Greater Middle East*. Washington DC: Brookings Institution Press, 2006.
- Lesch W David. *The Middle East and the United States: A Historical & Political Reassessment*. USA: West View Press, 1999.
- Wells Jr., F Samuel, Mark A Bruzonsky. *Security in the Middle East: Regional Change and Great Power Strategies*. USA: West View Press, 1987.

WEB RESOURCES

www.icj.org
www.icc.org
www.ictt.org
www.icty.org
www.ejil.org
www.ajil.org
www.asil.org

Journals

jia.sipa.columbia.edu
www.palgrave-journals.com/jird/
ejt.sagepub.com/
journal.georgetown.edu/
www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx
journals.cambridge.org/jid_RIS
irap.oxfordjournals.org/
cjjp.oxfordjournals.org/
onlinelibrary.wiley.com > ... > General & Introductory Political Science
www.tandfonline.com
www.academicjournals.org/journal/AJPSIR

www.journals.aau.dk/index.php/jci

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A: $10 \times 3 = 30$ Answer any 3 out of 4 (in about 500 words)

Section B: $20 \times 1 = 20$ Answer any 1 out of 2 (in about 1200 words)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : $5 \times 8 = 40$ Answer any 5 out of 8 (in 200 words each)

Section B : $4 \times 10 = 40$ Answer any 4 out of 7 (in 500 words each)

Section C: $1 \times 20 = 20$ Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE : BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

ETHNICITY, CULTURE AND INTERNATIONAL RELATIONS

Code: 15IS/PE/ET14

L T P : 4 0 0

CREDITS : 4

TOTAL TEACHING HOURS :52

Objectives Of The Course:

- To understand the significance and relevance of ethnicity in the International Relations
- To familiarise the students with issues related to Ethno Nationalism and Politics of Identity
- To comprehend the importance of Culture in a globalizing World Order.

Unit 1

Introduction to Ethnicity (13 hrs.)

- 1.1 Ethnicity and Ethnic Identity
- 1.2 Ethnic Groups and Ethnic Nationalities
- 1.3 Ethnicity and Class
- 1.4 Ethnicity and Gender
- 1.5 Ethnic Political Parties: The Politics of Identity

Unit 2

Theories of Ethnic Mobilisation (13hrs.)

- 2.1 Primordial Theory
- 2.2 Internal Colonialism Theory
- 2.3 Modernisation and Development Theory
- 2.4 Competition Theory
- 2.5 Resource Mobilisation Theory

Unit 3

Ethnic Mobilisation and Conflict (8hrs.)

- 3.1 External and Internal Sources of Ethnic Conflict
- 3.2 Separatism - Sri Lanka, Socialist Federal Republic of Yugoslavia, Kurds
- 3.3 Irredentism (Bosnia- Herzegovina)
- 3.4 Fundamentalism, Sectarianism
- 3.5 Genocide, State Policy of Genocide- Rwanda and Darfur

Unit 4

State and Ethnicity (8hrs.)

- 4.1 Ethnic Revivalism
- 4.2 Ethnicity and Nation Building

- 4.3 Pluralism, Regionalism and Ethnic Conflict
- 4.4 Democracy and Devolution: Rights And Welfare of Ethnic Minorities
- 4.5 Diaspora Nationalism – Indian Diaspora in SE Asia.

Unit 5

Ethnicity and Culture in International Relations

(10 hrs.)

- 5.1 Ethno Nationalism as an issue in International Politics
- 5.2 Globalization, Homogenization and Ethnic resurgence
- 5.3 Role of the international agencies in Ethnic conflicts
- 5.4 Culture as Soft Power
- 5.5 Cultural Diplomacy

BOOKS FOR REFERENCE

- Birch Antony. *Nationalism And National Integration*. London: Unwin Hyman, 1989.
- Brass, Paul R. *Ethnicity And Nationalism: Theory and Comparison*. New Delhi: Sage Publications, 1991.
- Enloe, Cynthia . *Ethnic Conflict And Political Development*. Boston: Little Brown Company 1973.
- Ganguly Rajat . *Ethnic Conflict And Secessionism In South and South East Asia : Causes, Dynamics and Solutions*. New Delhi: Sage Publications, 2003.
- Huntington Samuel. *Clash Of Civilizations And The Remaking Of World Order*. Boston, Massachusetts: Harper Collins, 1994.
- Leifer, Micheal. *Asian Nationalism*. London: Routledge, 2000.
- Mehta, Lalit, *Caste, Clan and Ethnicity*. New Delhi: Rawat Publications, 1999.
- Olzak, Susan and Nagel, John. *Competitive Ethnic Relations*. Orlando: Academic Press, 1986.
- Phadnis, Urmila. *Ethnicity And Nation Building In South Asia*. New Delhi: Sage Publications, 1989.
- Rothschild Joseph. *Ethno-Politics: A Conceptual Framework*. New York: Columbia University Press, 1981.
- Smith, Antony D. *The Ethnic Revival*. London: Cambridge University Press, 1981.
- Smith, Antony D. *Theories Of Nationalism*. New York: Harper .and Row, 1971.
- Snyder, Lewis. *Global Mini-Nationalism: Autonomy Or Independence*. Westport: Greenwood Press, 1982.

Stack, John F. *Ethnic Identities In A Transnational World*, Connecticut: Greenwood Press, 1981.

Tambiah, Stanley J. *Leveling Crowds : Ethnonationalist Conflicts And Collective Violence In South Asia*. New Delhi: Vistaar Publications, 1996.

Thompson, Denis L. and Dov Ronen. *Ethnicity, Politics And Development*. Boulder, Colorado: Lynne Rienner Publishers 1986.

Thompson, Richard R. *Theories Of Ethnicity: A Critical Approach*. Greenwood Press, 1989.

Williams, Collin H. *National Separatism*. Vancouver: University of British Columbia Press, 1982.

WEB RESOURCES

www.icj.org

www.icc.org

www.ictr.org

www.icty.org

www.ejil.org

www.ajil.org

www.asil.org

Journals

jiasipa.columbia.edu

www.palgrave-journals.com/jird/

ejt.sagepub.com/

journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

journals.cambridge.org/jid_RIS

irap.oxfordjournals.org/

cjjp.oxfordjournals.org/

onlinelibrary.wiley.com > ... > General & Introductory Political Science

www.tandfonline.com

www.academicjournals.org/journal/AJPSIR

www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A: 10x3=30 Answer any 3 out of 4 (in about 500 words)

Section B: 20x1=20 Answer any 1 out of 2 (in about 1200 words)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation
Exhibitions
Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : 5x8=40 Answer any 5 out of 8 (in 200 words each)

Section B : 4x 10=40 Answer any 4 out of 7 (in 500 words each)

Section C :1x20=20 Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

SUMMER INTERNSHIP

CODE: 15IS/PN/SI 32

CREDITS: 2

TOTAL WORKING HOURS: 35

OBJECTIVES OF THE INTERNSHIP

- To acquire the knowledge of the work culture in Research Agencies, Multi National Corporations, NGOs, IGOs and Embassies.
- To gain practical experience about the functioning of the organization
- To understand the importance of Research in International Relations
- To nurture a positive attitude to work in varied sectors like the government, research agencies, Multinational corporations
- To provide a hands-on work experience and to learn the importance of documentation, time management and report writing
- To inculcate self-confidence, work ethics and professionalism.

SUMMER INTERNSHIP:

1. The entire process of identifying agencies for summer internship for students begin during the month of January every year and as a part of this process students are asked to submit a Statement of Purpose and their Curriculum Vitae.
2. Based on the Statement of Purpose and area of interest the department helps the students to identify appropriate agencies.
3. Students will work through summer (First week of May to Mid June-30 working days).
4. The department has signed Memorandum of Understanding with premier research agencies in India and every year a maximum of two or three students will be trained as interns.
5. Before the commencement of the internship the students will be briefed about their internship requirements to be fulfilled.
6. Every student will have to put in a minimum of 8 hours a day for 30 days.

The evaluation of the internship will be done as follows:

- External Evaluation will be based on confidential grading on the prescribed evaluation form by the designated supervisor and agency -75 marks
- Internal evaluation will be based on oral presentation & Detailed Report- 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

HUMAN RIGHTS

CODE: 15IS/PC/HR44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the relevance of Human Rights as a key determinant of international relations
- To provide the students with an understanding of the working of international human rights agencies.
- To familiarise the students with various human rights violations around the globe.

Unit 1

Introduction

(12 hrs.)

- 1.1. Nature, Meaning and Concept of Human Rights
- 1.2. Evolution of Human Rights-Magna Carta to UDHR
- 1.3. Theoretical Framework of Human Rights-Individual, Societal and Civic Theories
- 1.4. Classification of Human Rights
- 1.5. International instruments – UDHR, ICCPR ICSECR

Unit 2

International Organizations – Monitoring, Enforcement and Protection

(10 hrs.)

- 2.1 United Nations – United Nations Commission on Human Rights, UN High Commissioner for Refugees, ILO
- 2.2 Amnesty International, ICRC
- 2.3 Role of INGO's, NGO's and Global Civil Society
- 2.4 Effectiveness of International Protection and Enforcement
- 2.5 Global Governance and Human Rights

Unit 3

Challenges To Human Rights

(10 hrs.)

- 3.1 Gender-based Discrimination and Violence
- 3.2 Crimes against Children
- 3.3 Refugees
- 3.4 Prisoners of war-Illegal detainees, Prisoners of Conscience, Political Prisoners
- 3.5 Racial Discrimination, Genocide and Ethnic cleansing

Unit 4

Development Rights

(10 hrs.)

- 4.1 Poverty and Illiteracy
- 4.2 Impact of Globalisation on Human Rights
- 4.3 Environmental Refugees and IDPs
- 4.4 Genetic Issues and Human Rights
- 4.5 Human Development

Unit 5

Human Rights in India

(10 hrs.)

- 5.1 Constitutional safeguards
- 5.2 Role and Function of NHRC and SHRC
- 5.3 Minorities Commission, National Commission for Women
- 5.4 Condition of Women and Children in India
- 5.5 Dalits and Socio-cultural Issues

BOOKS FOR REFERENCE

- Ahluwalia BK. *BR Ambedkar and Human Rights*. New Delhi: Vivek Publishing Company, 1981.
- Alstar Philip (edited). *The UN And Human Rights: A Critical Appraisal*. USA: Oxford University Press, 1995.
- Aruna Aladi. *Defend On Rights*. Chennai: Mathivanan Publications .1994.
- Bajwa, G.S. *Human Rights In India - Implementation And Violence*. New Delhi: Anmol Publications Pvt. Ltd, 1997.
- Baxi Upendra. *Inhuman Wrongs And Human Rights - Unconventional Essays*. New Delhi: Har Anand Publications, ., (1994),
- Campbell Tan. *Human Rights - From Rhetoric To Reality*. New York: Basil Blackwell INC, 1986
- Chandra U .*Human Rights*. Allahabad. Allahabad Law Agency Publications, 1990.
- Garling Marguerite. *The Human Rights Hand Book*. London: the Macmillan Press Ltd., 1979.
- Gearty Conor, Tankins. *A dam Human Rights in India- The Updates Amnesty International Report*. New Delhi: Vistaar publications, 1993.
- Iyer Krishna. *Human Rights And the Law*. Indore: Vedpal law house, 1986.
- Kumar Aravind. *Encyclopedia of Human Rights Violence and Non Violence* (3 volumes). New Delhi. : Anmol Publications, 1998.
- Marshall Burke. *The Supreme Court And Human Rights*. New York: Forum Publications, 1979.
- Mehartay Begum, S. *Human Rights In India - Issues And Perspectives*. New Delhi: A. P. H. Publishing Co-operation,
- Prasad Krishna. *Religious Freedom Under The Indian Constitution*. Calcutta :Minerva Associates (Publications) Pvt. Ltd., 1976.
- Subramanian S. *Human Rights -International Challenges* (2 volumes). New Delhi: Manas Publications: 1997.

WEB RESOURCES

Amnesty International :<http://www.amnesty.org>

Human Rights Watch :<http://www.hrw.org>

The International Committee On The Red Cross :<http://www.icrc.org>

United Nations High Commissioner For Refugees :<http://www.unhcr.ch>

Universal Declaration of Human Right (text) - <http://www.hrw.org/universal.html>.

Women's International League for Peace and Freedom (WILPF) :<http://www.wilpf.int.ch/>.

International League Against Racism And Anti-Semitism: <http://www.licra.ch/>.

United Nations Commission On Human Rights: <http://www.unhchr.ch/>.

International Federation Of Human Right Leagues (IFHR): <http://www.fidh.imagnet.fr/>.

JOURNALS

jia.sipa.columbia.edu

www.palgrave-journals.com/jird/

ejt.sagepub.com/

journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

journals.cambridge.org/jid_RIS

irap.oxfordjournals.org/

cjjp.oxfordjournals.org/

onlinelibrary.wiley.com > ... > General & Introductory Political Science

www.tandfonline.com

www.academicjournals.org/journal/AJPSIR

www.journals.aau.dk/index.php/jci

Human Rights Quarterly

U N Chronicle

Ethics and International affairs

American Journal of International Law.

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 20x2=40(2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: 10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTERNATIONAL ORGANISATIONS

CODE: 15IS/PC/IO44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To know about the structure and functions of International Organisations
- To understand the sphere of operations of International Organisations
- To critically analyze the changing function and role of International Organisations

Unit 1

Evolution and Types of International Organisations (13 hrs.)

- 1.1 History and evolution of International Organisations
- 1.2 Definition, Scope and Classifications
- 1.3 Functional classification of International Organisations
- 1.4 Typologies of International Organisations: Non-Governmental; Inter-Governmental; Trans-National Organisations/Corporations
- 1.5 Regional Organisations

Unit 2

United Nations Organisation (13 hrs.)

- 2.1 UN Structure and UN Specialised agencies
- 2.2 The role of UN in Peace keeping, Disarmament, Conflict Resolution and Humanitarian Relief
- 2.3 UN Millennium Development Goals
- 2.4 Reforming the United Nations
- 2.5 Changing Role of UN in the Twenty-First Century

Unit 3

Role of International Organisations in Development (13 hrs.)

- 3.1 International Development and Financial organisations
- 3.2 Role of World Bank and IMF in International Development
- 3.3 Role of OECD, ODA, ADB
- 3.4 Foreign Assistance, Technology Aid and Development Policy
- 3.5 Aid Harmonization and Coordination

Unit 4

Role and Significance of Regional, Inter Governmental and International Non-Governmental Organisations and NGOs (13 hrs.)

- 4.1 Changing Scope of International Organisations
- 4.2 The Role of Regional Organisations –OAU, OAS, SCO, EU
- 4.3 The Role of International Non-Governmental Organisations

- 4.4 The Role of Inter Government Organisations
- 4.5 Role of NGOs in Development, Human Rights, Environment and Peace Building

Unit 5

Global Governance

(13 hrs.)

- 5.1 Definition and Meaning of Global Governance
- 5.2 State Power & Global Governance
- 5.3 Human Security and Global Governance
- 5.4 Changing Perspectives of State and Civil Society
- 5.5 Governance in the Twenty-First Century

BOOKS FOR REFERENCE

Armstrong David, Lloyds Lorna and Redmond John. *International Organizations in World Politics*. 3rded. New York: Pal Grave, Macmillan, 2005.

Bennett, Le Roy A. *International Organizations: Principles & Issues*. 5thed. New Jersey: Prentice Hall, 1991.

Bull, Benedicte and McNeill, Desmond. *Development Issues in Global Governance*. 1st ed. U.K: Routledge 2006.

Claude Inis L. *Sword into Plowshare. The Problem and Progress of International Organizations*. 3rd ed. New York: Random House, 1984.

Clive Archer. *International Organizations*. 3rd ed. UK: Routledge, 2001.

David, Lewis. *The Management of Non-Governmental Development Organizations: An Introduction*. UK: Routledge, 2001.

Diehl Paul F. *The Politics of Global Governance: International Organizations in an independent World*. USA: Lynne Rienner, Boulder, 1997

Froehlich, Manuel. *Political Ethics And The United Nation-Dag Hammarskjöld as Secretary-General*, U.K: Routledge. 2007.

Gordenker, Leon. *The UN Secretary-General and Secretariat*. UK: Routledge, 2005.

Joachim, Jutta, Reinalda, Bob and Verbeek, Bertjan. *International Organizations and Implementation: Enforcers, Manager*. Authorities. UK: Routledge, 2007.

Jordan Robert.S, Archer Clive, Feld Werner J, Granger Gregory P, Ordes Kerry. *International organizations: A comparative approach to the management of cooperation*. 4thed. USA: Greenwood publishing Group, Santa Barbara 2001.

Karns P Margret and Mingst Karen. *International Organisations: The Politics and Process of Global Governance*. 3rded. USA: Lynne Rienner Publishers, Boulder, 2005.

Keohane, Robert O. *Power and Governance in a Partially Globalized World*. U.K: Routledge, 2002.

Luck, Edward C. *UN Security Council Practice and Promise*. U.K: Routledge, 2006.

Michael G. Schechter. *United Nations Global Conferences*. U.K: Routledge 2005.

Peterson, M.J. *The UN General Assembly*. U.K: Routledge, 2005.

Steve Hughes, Rorden Wilkinson. *Global Governance Critical Perspectives*. UK. Routledge, 2002.

Taylor Paul. *International Organizations in the age of Globalisation continuum*. New York: Continuum International Publishing Group, 2005.

Wilkinson, Rorden Ed. *The Global Governance Reader*. UK: Routledge, 2005

WEB RESOURCES

Academic Council On The United Nations System: <http://www.brown.edu/Departments/ACUNS/>

Action Without Borders: Linking People And Organizations In 120 Countries: <http://www.idealists.org>,
:<http://www.oneowrld.org>

European Union : : [http://www.europa.eu.int/\(official E U home page\)](http://www.europa.eu.int/(official%20EU%20home%20page))

International Committee Of The Red Cross: <http://www.icrc.org> (official home page.)

United Nations Peace Keeping Operation: <http://www.un.org/depts/dpko> (official U N home Page)

International Monetary Fund (IMF): <http://www.imf.org>

Social Dimensions of the I M F's Policy Dialogue: <http://www.imf.org/external/pubs/ft/pam47con.htm>.

World Bank :<http://www.worldbank.org>

World Bank On Development: <http://www.worldbank.org/html/extdr/thematic.htm>

U.S. Agency For International Development (USAID) :<http://www.info.usaid.gov>

CARE (NGO) Relief Organization with Branches in Many Countries): <http://www.care.org>

Association Of Southeast Asian Nations (ASEAN): <http://www.asean.sec.org>

JOURNALS:

International Organization

International Studies Quarterly

Journal Of European Public Policy

The Interdependence (United Nations Association Of The United States)

American Political Science Review

Reports and Papers (Academic Council On The United Nations System)

U N Chronicle

West European Politics

Journal of East Asian Affairs

Third World Quarterly

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: $20 \times 2 = 40$ (2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: $10 \times 1 = 10$ (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

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Documentaries/short films

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All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks ($20 \times 5 = 100$)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

THE INTERNATIONAL ORDER IN THE ASIA PACIFIC

CODE: 15IS/PC/AP44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVE OF THE COURSE

- To gain knowledge about the emerging issues in Asia Pacific region
- To familiarize the students with the geopolitics and geo economics of the region
- To understand the emerging security dynamics of the region

Unit 1

Asia-Pacific in the International System

(12 hrs.)

- 1.1 The Contemporary Historical Profile of the Asia-Pacific
- 1.2 The Political-Geographical Profile of the Asia-Pacific
- 1.3 The Conflict Spectrum of the Asia-Pacific
- 1.4 The Global Impact of the Asia-Pacific
- 1.5 Cold War and the Asia Pacific

Unit 2

Theoretical Approaches In The Asia Pacific Region (14hrs.)

- 2.1 Balance of Power,
- 2.2 Hegemonic Stability
- 2.3 Power Transition Theory
- 2.4 Regional Security Complex Theory
- 2.5 Constructivism and Constructivist Agenda

Unit 3

Systemic Issues in the Asia-Pacific

(13 hrs.)

- 3.1 Traditional and Non Traditional Issues In The Asia Pacific
- 3.2 Territorial & Boundary Disputes
- 3.3 Ethnic Conflicts and Minority Issues
- 3.4 Environment and Energy Security Issues In Asia Pacific
- 3.5 Challenges to Democratisation In The Region

Unit 4

Security Of The Asia Pacific In The Twenty First Century

(15 Hrs.)

- 4.1 Security Dilemma In The Asia Pacific
- 4.2 Nuclear Weapons and The Asia-Pacific- The Second Nuclear Age
- 4.3 Maritime Security Issues In The Asia Pacific-Sea Lanes Of Communication, Maritime Piracy & Terrorism
- 4.4 US and the Asia Pacific
- 4.5 China and the Asia Pacific

Unit 5

Geo-Economic Issues and Globalisation in the Asia-Pacific (11hrs.)

- 5.1 The Asia-Pacific Economic System: Issues and Challenges
- 5.2 Globalisation and the Asia Pacific
- 5.3 Regional Economic Cooperation: ASEAN-ARF
- 5.4 East Asia Initiative, Asia-Pacific Economic Cooperation
- 5.5 Trans-Regional Economic Linkages: EU, Americas

BOOKS FOR REFERENCE

- Alagappa Muthiah. *Asian Security Order*. Stanford, California: Stanford University Press, 1998.
- Acharya Amitav. *Constructing a Security Community in South East Asia: ASEAN & The Problem of Regional Order*. UK: Oxford University Press, 2001.
- Abdollahian Mark, Carole Alsharabati, Brian Efind, Jacek Kugler, Douglas Lemke, A. F.K. Organski, Allan C. Stam III, Ronald L. Tammen. *Power Transition Strategies for the 21st Century*. UK: Chatham House Publishers, 2000.
- Buzan Barry & Ole Waever, *Regions and Powers: The Structure of International Security*. UK: Cambridge University Press, 2003
- Blackwell Robert D, Dobb Paul. *"America's Asian Alliances"*. USA: MIT Press Massachusetts, 2000
- Connors K. Michael, Remy Davison & Jorn Dosch. *The New Global Politics of the Asia-Pacific*. UK: Routledge Curzon, 2004.
- Keohane Robert O. *After Hegemony*. Princeton University, 1984.
- Paul T.V., James J Writz and Michel Fortmann. *Balance of Power: Theory and Practice in the 21st Century*. Stanford, California: Stanford University Press, 2004
- Waltz N Kenneth. *Man, State and War: A Theoretical Analysis*. New York: Columbia University Press, 1954
- Paul Bracken. *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age*. New York: Harper Collins, 2000
- John Ikenberry G. and Michael Mastanduno. *International Relations Theory and the Asia-Pacific*, Columbia: Columbia University Press, 2003
- William T. Tow. *Asia-Pacific Strategic Relations: Seeking Convergent Security*. Cambridge: Cambridge Asia-Pacific Studies, Cambridge University, 2001
- Paul Dobb. *Towards a New Balance of Power in Asia*. Adelphi Paper No. 295, London: International Institute of Strategic Studies, 1995
- Joshua Ho & C.Z. Raymond. *The Best of Times, the Worst of Times: Maritime Security in the Asia-Pacific*. Singapore: World Scientific Publishers, 2005
- Lawrence Prabhakar, Joshua Ho & Sam Bateman. *The Maritime Balance of Power in the Asia-Pacific*:

Maritime Doctrines and Nuclear Weapons AtSea.Singapore: World Scientific Publishers, 2006

YahudaMichael.*The International Politics of the Asia Pacific*.UK:Routledge, Curzon, 2006

WEBSITES

Strategic Asia Database (National Bureau of Asian Research Seattle. WA)

<http://strategicasia.nbr.org/Data/Cview/>

Columbia International Affairs Online <http://www.ciaonet.org/>

Journals

Pacific Review

Asian Survey

International Security

World Politics

Contemporary South East Asia

Adelphi Paper

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 20x2=40(2 essays out of 5 in 1500 words, each carrying 20 marks)

Section B: 10x1=10 (1 essay out of 2 in 500 words, each carrying 10 marks)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

All essay type questions

5 essays out of 10.

Each essay will be of 1500 words.

Each question will carry 20 marks (20x5=100)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS
(Effective from the academic year 2015– 2016)

DISSERTATION

CODE: 15IS/PC/DI45
L T P: 5 1 0

CREDITS:5

TOTAL TEACHING HOURS: 65

OBJECTIVES

- To appreciate the significance and the need for academic research
- To enable students to carry out research in related areas of IR
- To provide scope to further the students research capabilities and analytical skills.

RESEARCH WORK

- At the beginning of the fourth semester the student is expected to decide the research topic
- Topics will be approved by the Department based on the availability of research material and viability of the topic
- There will be a regular research proposal writing class for the student during the Dissertation hour
- Writing Index Cards is a part of the research work. It is mandatory that the students write the bibliography details in the Index Cards.
- The Student at the end of the proposal writing class will submit the research proposal for approval
- Based on the research topic the student will be allotted a supervisor
- There will be a periodical assessment of the Research work by the supervisor
- Deadlines for the submission of chapters will be notified to the student and adhering to the same is must for the student
- Every student must have the Research Manual prepared by the Department. This will consist of methodology, theoretical and measurement models, formatting style, font, footnote, bibliography writing, and all other details required towards the completion of the dissertation.
- The Dissertation shall consist of a minimum of 50 pages to a maximum of 80 pages.
- Plagiarism shall be consciously avoided.
- After the completion of the Dissertation the student will have to appear for a viva-voce.
- Evaluation :
 - Thesis-75 marks
 - Viva Voce-25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTRODUCTION TO PEACE AND CONFLICT STUDIES

Code: 15IS/PE/PC14

L T P : 4 0 0

CREDITS : 4

TOTAL TEACHING HOURS :52

OBJECTIVES OF THE COURSE

- To provide an understanding of the basic nature and challenges of contemporary conflicts
- To familiarise the students with theoretical understandings of Conflict Studies and related fields
- To facilitate an in-depth knowledge about Peace Building Approaches in diverse conflict regions
- To create an interactive space for the building of a network of young people committed to constructive social change
- To build a synergy between the Theory and Practice of Conflict Transformation, Human Security and Development.

Unit 1

Understanding Conflict

(12 hrs.)

- 1.1 Definition of conflict
- 1.2 Conflict theories
- 1.3 Levels of Conflict in the international system
- 1.4 Types of conflict and conflict mapping
- 1.5 Conflict Resolution and Transformation

Unit 2

Defining Peace

(10 hrs.)

- 2.1 Defining Peace
- 2.2 Peace theories
- 2.3 Prevention of conflict and De-escalation
- 2.4 Types of peace
- 2.5 Building Sustainable Peace

Unit3

Peace Building through State and International Institutions

(10 hrs.)

- 3.1 Role of the State
- 3.2 Track I and Track II diplomacy
- 3.3 Role of the UN in conflict resolution and peace building
- 3.4 Role of the Media and Civil Society
- 3.5 Post War Reconstruction and Peace Building

Unit 4

Conflicts around the World

(12 hrs.)

- 4.1 Europe –Balkans
- 4.2 Africa - Darfur and Sierra Leone
- 4.3 Middle East-Palestine

4.4 South Asia – Sri Lanka

4.5 South Asia - Kashmir

Unit 5

Conflict Transformation & Peace Building: Education and Training (8 hrs.)

5.1 Identifying and analyzing conflict in the international system

5.2 Negotiation

5.3 Mediation

5.4 Conflict transformation and management

5.5 Peace building

BOOKS FOR REFERENCE:

Burton, John, W. *Conflict Resolution as a Political Philosophy*. Manchester: Manchester University Press, 1993

Deutsch, Morton. *Introduction to the Resolution of Conflict*. New Haven. CY: Yale University, 1973

Frank G. Hoffman. *Hybrid Threats: Reconceptualizing the Evolving Character of Modern Conflicts*. Strategic Forum, N° 240, April 2009.

Gaya Best, Shedrack. *Introduction to Peace and Conflict Studies*. Nigeria :Ibadan,2006.

Jeong, Ho-Won. *Peace and Conflict Studies: An Introduction*. London. Ash Gate Publishing Limited. 2000

Lederach, P, John. *Preparing for Peace: Conflict Transformation Across Culture*.2000.

Mial,Hugh. Oliver ,Ramsbotham and Woodhouse Tom. *Contemporary Conflict Resolution*. USA:Blackwell Publishing Inc. 1999.

Moore, C. *The Mediation Process*.3rd ed., San Francisco.San Francisco USA: Jossey- Bass. 2003.

Thompson, L. *The Mind and Heart of the Negotiator*. 3rd ed. NJ: Prentice Hall. 2004.

Wallensteen, Peter .*Understanding Conflict Resolution, War, Peace and the Global System*. London: 2002

Webel, Charles and Johan Galtung.*Hand Book of Peace and Conflict Studies*. USA & Canada: 2008.

White, N D. *Keeping the Peace: The United Nations and the Maintenance of International Peace and Security*.Manchester: Manchester University Press.1993

WEB RESOURCES

The Conflict Resolution International Sources from <http://www.crinfo.org/index.jsp>

The Conflict Transformation by Peaceful Means, available at www.transcend.org/

Journals

jiasipa.columbia.edu

www.palgrave-journals.com/jird/

ejt.sagepub.com/
journal.georgetown.edu/
www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx
journals.cambridge.org/jid_RIS
irap.oxfordjournals.org/
cjp.oxfordjournals.org/
onlinelibrary.wiley.com > ... > General & Introductory Political Science
www.tandfonline.com
www.academicjournals.org/journal/AJPSIR
www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A: 10x3=30 Answer any 3 out of 4 (in about 500 words)

Section B: 20x1=20 Answer any 1 out of 2 (in about 1200 words)

Third component:

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : 5x8=40 Answer any 5 out of 8 (in 200 words each)

Section B : 4x10=40 Answer any 4 out of 7 (in 500 words each)

Section C : 1x20=20 Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

LATIN AMERICAN: POLITY, ECONOMY AND SOCIETY

CODE: 15IS/PE/LA14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To gain knowledge with a historical background to Latin America
- To comprehend the working of Latin American politics
- To understand the emergence of the contemporary social and economic order in Latin America

Unit I

The Idea of Latin America

(13 Hrs.)

- 1.1 Historical Background of Latin America
- 1.2 Geographical Significance
- 1.3 Modern History :Colonisation and Imperialism
- 1.4 Independence and State Formation
- 1.5 Latin America in The 21stCentury : Problems and Potential

Unit 2

Revolutions And Regimes

(13 hrs.)

- 2.1 Revolutions in Latin America -1750-1914
- 2.2 Marxism,Communist Revolutions and the Rise of Leftism : Cuba
- 2.3 Nationalism and Revolution: Mexico
- 2.4 Autocracy and Military Dictatorship :Chile
- 2.5 Transitions to Democracy :Brazil and Venezuela

Unit 3

Economy Of Latin America

(13 hrs.)

- 3.1 Natural Resources , Human Resource and Development
- 3.2 GlobalisationLiberalisationand Market Reforms
- 3.3 Rise of the Middle Class
- 3.4 Economic Crisis-Argentina
- 3.5 Regionalism in Latin America

Unit 4

Society In Latin America

(13hrs.)

- 4.1 Demography and Social Structure
- 4.2 Urbanisation
- 4.3 Women and Society- Socio Religious Factors
- 4.4 Crime and Corruption

4.5 Popular Culture/Sports/Music/Art

Unit 5

Latin America and The World

(13 hrs.)

5.1 Latin America and The World: Regional And Transcontinental Linkages

5.2 Latin America and USA

5.3 Latin America and China

5.4 Latin America and India

5.5 Latin America and EU

Books for Reference

Black. Jan Knipper. *Latin America, Its Problems and Its Promise: A*

Multidisciplinary Introduction .Westview Press, 1998 (3rd edition)

Chasteen. John Charles. *Americanos: Latin America's Struggle for Independence.*

Oxford University Press, 2008

Drake. Paul W. *Between Tyranny And Anarchy: A History Of Democracy In Latin*

America, 1800-2006. USA: Stanford University Press, 2009

Guillermoprieto ,Alma. *Looking for History: Dispatches from Latin America.* 2001

Guillermoprieto Alma, *Dancing with Cuba,* 2007

Holloway ,Thomas H. *A Companion to Latin American History.* Wiley-Blackwell, 2010

Keen. Benjamin. *Latin American Civilization: History and Society, 1492 to the*

Present .Westview Press, 2000 (7th edition)

Ward. John. *Latin America: Development and Conflict since 1945.* Routledge, 1997

Williamson, Edwin. *The Penguin History Of Latin America.* London: 1992

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ejt.sagepub.com/

journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

journals.cambridge.org/jid_RIS

irap.oxfordjournals.org/
cjjp.oxfordjournals.org/
onlinelibrary.wiley.com > ... > General & Introductory Political Science
www.tandfonline.com
www.academicjournals.org/journal/AJPSIR

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A: $10 \times 3 = 30$ Answer any 3 out of 4 (in about 500 words)

Section B: $20 \times 1 = 20$ Answer any 1 out of 2 (in about 1200 words)

Third component :

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : $5 \times 8 = 40$ Answer any 5 out of 8 (in 200 words each)

Section B : $4 \times 10 = 40$ Answer any 4 out of 7 (in 500 words each)

Section C : $1 \times 20 = 20$ Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS
(Effective from the academic year 2015 – 2016)

GLOBALISATION

CODE: 15IS/PE/GL24
LTP :4 0 0

CREDITS : 4

TOTALTEACHING HOURS: 52

COURSE OBJECTIVES:

- To familiarise the meaning and conceptual approaches to globalization
- To understand how Globalisation affects the wealth and power of nations and the culture and societies of peoples around the globe.
- To assess the impact of globalisation on developed and developing countries

Unit 1
Introduction to Globalisation(12 hrs.)

- 1.1 Meaning and Concept of Globalisation
- 1.2 Theoretical approaches to Globalisation
- 1.3 Nation States in a Globalising World
- 1.4 Globalisation and Developed Nations
- 1.5 Globalisation and Less Developed Nations

Unit 2
Globalisation and the State (12 hrs.)

- 2.1 State Sovereignty and Globalisation
- 2.2 Globalization and National Power
- 2.3 Globalization and Interdependence
- 2.4 World society and Nation State
- 2.5 Globalisation and Global Governance

Unit 3
Globalisation and the World Economy (12 hrs.)

- 3.1 Emergence of the World Economy
- 3.2 Liberalisation and Privatisation –Emergence of MNC and TNC
- 3.3 Issues Concerning Openness and Trade
- 3.4 Economic Integration, Regionalism and Regional Trading Regimes
- 3.5 GATT and WTO

Unit 4
Globalisation, Society and Culture (8 hrs.)

- 4.1 Globalisation and Modernity
- 4.2 Hybridization of culture and Deterritorialisation
- 4.3 Homogenisation and Polarization
- 4.4 Globalization and Gender
- 4.5 Globalization and ICT

Unit 5

Globalisation and India

(8 hrs.)

- 5.1 Impact of Globalisation on India
- 5.2 Impact on the Economy - Agriculture and Industry
- 5.3 Impact on Indigenous Communities and the Environment
- 5.4 Impact on Culture and Tradition
- 5.5 Resistance and Alternatives to Globalisation

BOOKS FOR REFERENCE

- Ankie, Hoogvelt. *Globalisation and the Post Colonial World*. New Delhi: Macmillan, 1998.
- Biplab Dasgupta. *Globalisation: India's Adjustment Experience*. New Delhi: Sage Publications, 2005.
- Gilpin, Robert. *Global Political Economy: Understanding The International Economic Order*. U.K Orient Blackswan, 2003.
- Goddard, C. Roe, Patrick Cronin, and Kishore C. Dash, *International Political Economy: State-Market Relations in a Changing Global Order*. USA: Lynne Rienner Publishers, 2003.
- Grieco, Joseph M. and G. John Ikenberry, *State Power and World Markets: The International Political Economy*. New York: W. W. Norton, 2003.
- Holton R J. *Globalisation and the Nation State*. UK: Macmillan Press, 1998.
- Kar Samit. *Globalisation*. New Delhi: Rawat Publication, 2005.
- Lechner, Frank, J and Boli, John. *The Globalisation Reader*. UK: Blackwell Publishing Oxford, 2008.
- Nettl, J.P. and Roland Robertson, *International Systems and the Modernization of Societies*, New York .1968.
- Roy Sumit. *Globalisation, ICT And Developing Nations: Challenges In The Information Age*. New Delhi: Sage Publications, 2005
- Shaw Martin. *Politics And Globalisation: Knowledge, Ethics And Agency*. UK: Routledge Publications, 1999.
- Suter, Keith. *Global Order And Global Disorder: Globalisation And The Nation State*. USA: Greenwood Publishing House, 2008.

WEB RESOURCES

- www.worldaffairsjournal.org/
- www.foreignaffairs.com/
- www.nus.edu.sg/iro/
- www.lse.ac.uk/internationalRelations/Home.aspx
- www.international-relations.com/

Journals

- jia.sipa.columbia.edu
- www.palgrave-journals.com/jird/
- ejt.sagepub.com/
- journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx
journals.cambridge.org/jid_RIS
irap.oxfordjournals.org/
cjp.oxfordjournals.org/
onlinelibrary.wiley.com > ... > General & Introductory Political Science
www.tandfonline.com
www.academicjournals.org/journal/AJPSIR
www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

All essay type questions

Section A: 10x3=30 Answer any 3 out of 4 (in about 500 words)

Section B: 20x1=20 Answer any 1 out of 2 (in about 1200 words)

Third component :

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : 5x8=40 Answer any 5 out of 8 (in 200 words each)

Section B : 4x 10=40 Answer any 4 out of 7 (in 500 words each)

Section C :1x20=20 Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

WORLD AFFAIRS

CODE: 15IS/PE/WA34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquaint the students with current political issues and concerns in the world and India.
- To familiarize the student with major conflicts; security and environmental issues
- To equip the students with the required general knowledge for better career options

Unit 1

Contemporary Global Scenario (12hrs.)

- 1.1 Unipolar vs. Multipolar World Order
- 1.2 Nuclearisation vs. Nuclear Disarmament
- 1.3 The Third World: State Building Challenges, Development and Growth
- 1.4 Globalisation-Prospects & Challenges
- 1.5 Terrorism-Issues & Concerns

Unit 2

The United Nations Organization: Retrospect and Prospects (10 hrs.)

- 2.1 Evolution of the UNO
- 2.2 Role of UN in Peace Keeping
- 2.3 UN& Specialized Agencies
- 2.4 UN& US
- 2.5 UN Reforms

Unit 3

Issues of contention in International Politics (10 hrs.)

- 3.1 Changing Security Environment after the Cold War
- 3.2 Ethnic conflicts-Sri Lanka , Darfur
- 3.3 Border Conflicts -India, Pakistan- Kashmir
- 3.4 Resource Conflicts- Central Asia
- 3.5 Middle East conflicts-Israel and Palestine

Unit 4

Contemporary India (10 hrs.)

- 4.1 India as a Rising Power
- 4.2 Internal security challenges-Naxalism, Insurgency and separatism
- 4.3 Secularism-Communalism and Minorities
- 4.4 Terrorism in India
- 4.5 India and Globalisation

Unit 5

Global Environment Issues & Concerns (10 hrs.)

- 5.1 Global Warming
- 5.2 Deforestation, Depletion of Water Resources & Ozone Layer
- 5.3 Public Interest Litigation & Environmental Activism
- 5.4 International Environmental Agreements- Agenda 21, Kyoto Protocol, Montréal Agreement
- 5.5 Tragedy of the Commons

BOOKS FOR REFERENCE

Bernhard Sven Gareis. *The United Nations*. U.K: Palgrave Publication, 2003.

Bharucha Erach. *Text Book of environmental Studies*. New Delhi: UGC, 2005.

Boyd Andrew. *An Atlas of World Affairs*. U .K: Rutledge Publication, 1998.

Moor John Alphine and Pubantz Jerry. *The New United Nations: International Organization in the Twenty First Century*. USA: Prentice Hall, 2006.

Panagariya Arvind. *India the Emerging Giant*. New Delhi: Oxford University Press, 2008.

Segal Gerald. *The World Affairs Companion: The essential one volume guide to global issues*. New York: Simon Schuster, 1991.

Singh Naunihal. *Dynamics of International Relations*, New Delhi: Mittal Publications, 2002.

Thomas Paulose. *India and World Affairs*. New Delhi: Anmol Publications, 1996.

Tyler Miller G. *Environmental Science*. U.K: Brooks and Cole, 2003.

WEB RESOURCES

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Journals

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journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

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irap.oxfordjournals.org/

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www.tandfonline.com

www.academicjournals.org/journal/AJPSIR

www.journals.aau.dk/index.php/jci

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A: $10 \times 3 = 30$ Answer any 3 out of 4 (in about 500 words)

Section B: $20 \times 1 = 20$ Answer any 1 out of 2 (in about 1200 words)

Third component :

Assignment

PPT presentation

Quiz

Case studies

Simulation

Exhibitions

Documentaries/short films

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A: $5 \times 8 = 40$ Answer any 5 out of 8 (in 200 words each)

Section B: $4 \times 10 = 40$ Answer any 4 out of 7 (in 500 words each)

Section C: $1 \times 20 = 20$ Answer any one out of three (in 1000 words each)

**STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI
M.A. DEGREE: BRANCH II (E) – INTERNATIONAL STUDIES**

SYLLABUS

(EFFECTIVE FROM THE ACADEMIC YEAR 2015-2016)

THIRD WORLD DEVELOPMENT CHALLENGES

CODE: 15IS/PI/TW24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To introduce the students to the challenges manifest in the Third World
- To familiarise the students with concepts such as poverty, underdevelopment, human security, terrorism and inter and intra State conflicts
- To learn to compare and contrast the political, economic and social disparity that is prevalent in the world today

Unit 1

Emergence of The Third World

(10 hrs.)

- 1.1 Definitions and Meaning of “Third World”
- 1.2 Historical context and the Evolution of the Third World
- 1.3 Nationalist Ideologies and Independence Movements
- 1.4 Decolonisation and the Third World
- 1.5 Building the Post-Colonial Nation-State

Unit 2

Conflicts in the Third World

(10 hrs.)

- 2.1 Inter and Intra State conflict
- 2.2 Proxy wars- Kashmir
- 2.3 Insurgency and secessionist movements
- 2.4 Terrorism
- 2.5 Resource conflicts

Unit 3

Political Stability and Governance

(12 hrs.)

- 3.1 Democratization vs. Authoritarianism
- 3.2 Corruption and Criminalisation of politics
- 3.3 The State and Marginalisation - Darfur, Rwanda, Cambodia
- 3.4 Political and ethnic violence
- 3.5 Good governance and Institution building- A Third World Experience

Unit 4

Third World Economic challenge

(12 hrs.)

- 4.1 North- South
- 4.2 NIEO, South –South Cooperation
- 4.3 Globalization and Inequality, Rural - Urban divide
- 4.4 Politics and Economics of Foreign aid

4.5 Role of International Monetary institutions

Unit 5

Development Issues and Challenges

- 5.1 Human Development and human rights
- 5.2 Women and development
- 5.3 Developmental challenges: Poverty, Illiteracy, unemployment and health
- 5.4 Demographic Issues- population growth, migrant and refugee population
- 5.5 Environmental degradation and Sustainable Development

BOOKS FOR REFERENCE:

George W. Shepherd Jr. and P. Nanda *Human Rights and Third World Development*. Greenwood Press, 1985.

Haleh Afshar. *Women and Politics in the Third World*. Routledge, 1996.

Howard Handelman. *The Challenge of Third World Development*, Pearson. 2008.

Kempe Ronald Hope Sr. *Development in the Third World: From Policy Failure to Policy Reform*. M. E. Sharpe, 1996.

Mohammed Ayoob. *The Third World Security Predicament: State Making, Regional Conflict and the International System*. Boulder: L. Rienner Publishers, 1995.

Manochehr Dorraj. *The Changing Political Economy of the Third World*. Lynne Rienner, 1995.

Pradip K Ghosh. *New International Economic Order: A Third World Perspective*. Greenwood Press, 1984.

Robert Pinkney. *Democracy in the Third World*. Lynne Rienner, 2004.

Journals:

Anantha K. Duraiappah. *Poverty and Environmental Degradation: A Review and Analysis of the Nexus, World Development*, Vol. 26, No. 12, 1998

C. Allen. *Warfare, endemic violence & State Collapse in Africa*, Review of African Political Economy 1999

Cameron G Thies. *State Building, Interstate and Intrastate Rivalry: A study of Post-Colonial Developing Country Extractive Efforts, 1975-2000*, International Studies Quarterly 2004

Crawford Youn., *The end of Post Colonial State in Africa? Reflections on Changing African Political Dynamics*. African Affairs 2004

David Strang. *From Dependency to Sovereignty: An event History Analysis of Decolonization 1870-1987*. American Sociological Review, Vol. 55, No. 6, December 1990

Dudley Seers. *North-South: Muddling Morality And Mutuality*. Third World Quarterly, Volume 2, Issue 4,

October 1980

Edward E Barbier & Anil Markandya. *The Conditions For Achieving Environmentally Sustainable Development*. European Economic Review 34, 1990

Gina Koczbersk. *Women In Development: A Critical Analysis*. Third World Quarterly, Volume 19, Issue 3, 1998

Jennifer Milliken and Keith Krause. *State Failure, State Collapse and State Re Construction: Concepts, Lessons and Strategie*. Development and Change 33(5), 2002

Krishnamurthi. *Multilateral Trade Negotiations And The Developing Countries*. Third World Quarterly, Volume 2, Issue 2, April 1980

Mark T Bergerr & Heloise Weber, *War Peace And Progress: Conflict, Development (In)Security And Violence In The 21st Century*. Third World Quarterly, Vol. 30, No. 1, 2009

Michael Manley. *Third World Under Challenge: The Politics Of Affirmation*. Third World Quarterly, Volume 2, Issue 1, January 1980

R. A, W. Rhodes. *Governing without Governmen*. Political Studies, XLIV, 1996

Ronald Munck. *Globalisation, Governance and Migration: An Introduction.*, Third World Quarterly, Vol.29, No.7, 2008

Richard Sandbrook, David Romano. *Globalisation, Extremism And Violence In Poor Countries. Third world countries*. Volume 25, Issue 6, 2004

Sidney Dell. *The World Monetary Order*. Third World Quarterly, Volume 2, Issue 4, October 1980

Thomas G Weiss. *Governance, Good Governance and Global Governance: Conceptual and Actual Challenge.*, Third World quarterly, Vol.21, No.5, 2000

Thomas Pogge. *World Poverty and Human Right.*, Ethics of International Affairs 19, no. 1 2005

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www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

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cijp.oxfordjournals.org/
onlinelibrary.wiley.com > ... > General & Introductory Political Science
www.tandfonline.com
www.academicjournals.org/journal/AJPSIR
www.journals.aau.dk/index.php/jcir

PATTERN OF EVALUATION
End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : 5x8=40 Answer any 5 out of 8 (in 200 words each)

Section B : 4x 10=40 Answer any 4 out of 7 (in 500 words each)

Section C : 1x20=20 Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS

(Effective from the academic year 2015 – 2016)

INTRODUCTION TO POLITICAL THOUGHT

Code: 15IS/PI/PT24

Credits: 4

OBJECTIVES OF THE COURSE:

- To gain an understanding on the ancient and modern Western political thinkers
- To comprehend the features of ancient and modern Indian political thinkers
- To study their contribution to the society and to International Relations

Unit 1

Classical Political Thought

- 1.1 Features of Ancient Greek Political Thought
- 1.2 Socrates
- 1.3 Plato
- 1.4 Aristotle
- 1.5 Thucydides

Unit 2

Medieval Political Thought

- 2.1 Church and State
- 2.2 St. Thomas Aquinas
- 2.3 Machiavelli
- 2.4 Montesquieu
- 2.5. David Hume

Unit 3

Modern Political

- 3.1 G.W.F. Hegel
- 3.2 Jean Jacques Rousseau
- 3.3 John Locke
- 3.4 Thomas Hobbes
- 3.5 Immanuel Kant

Unit 4

Contemporary Political Thought

- 4.1 Adam Smith
- 4.2 John Stuart Mill
- 4.3 Jürgen Habermas
- 4.4 Karl Marx
- 4.5 Hans Morgenthau

Unit 5

Indian Political Thinkers

- 5.1 Manu and Kautilya
- 5.2 Rabindranath Tagore
- 5.3 Dadabai Naoroji
- 5.4 Mahatma Gandhi
- 5.5 Jawaharlal Nehru

BOOKS FOR REFERENCE

Arora Prem. *Selected Western and Indian Political Thinkers*. New Delhi: Book Hives, 1999.

Bidyut Chakrabarty and Rajendra Kumar Pandey. *Modern Indian Political Thought: Text and Context*. UK: Sage Publication 2005.

Chris Brown, Terry Nardin, and Nicholas Rengger. *International Relations in Political Thought: Texts from Ancient Greek to the First World War*. UK: Cambridge University Press, 2002

Dante Germino. *Modern Western Political Thought: Machiavelli to Marx*. London: University Of Chicago Press, 1972

E. Barker. *The Political Thought of Plato and Aristotle*. New York, Dover: 1959

Gettell G. Raymond. *History of Political Thought*. New York: The Century co, 1924

J.S. McClelland. *A History of Western Political Thought*. London: Routledge, 1996

Michael Rosen and Jonathan Wolff. *Political Thought*. Oxford: Oxford University Press, 1999

T.A. Sinclair. *History of Greek Political Thought*. London: Routledge, 1952

W.M. Spellman. *A Short History of Western Political Thought*. UK: Palgrave Macmillan, 2015

WEB RESOURCES

www.worldaffairsjournal.org/

www.foreignaffairs.com/

www.nus.edu.sg/iro/

www.lse.ac.uk/internationalRelations/Home.aspx

www.international-relations.com/

Journals

jia.sipa.columbia.edu

www.palgrave-journals.com/jird/

ejt.sagepub.com/

journal.georgetown.edu/

www.lse.ac.uk/internationalRelations/Journals/millenn/Home.aspx

journals.cambridge.org/jid_RIS
irap.oxfordjournals.org/
cjjp.oxfordjournals.org/
onlinelibrary.wiley.com > ... > General & Introductory Political Science
www.tandfonline.com
www.academicjournals.org/journal/AJPSIR
www.journals.aau.dk/index.php/jci

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 hours.

Section A : 5x8=40 Answer any 5 out of 8 (in 200 words each)

Section B : 4x10=40 Answer any 4 out of 7 (in 500 words each)

Section C: 1x20=20 Answer any one out of three (in 1000 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.A. DEGREE: BRANCH II (E) - INTERNATIONAL STUDIES

SYLLABUS
(Effective from the academic year 2015 – 2016)

SOFT SKILLS

CODE : 15IS/PK/SS22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self development
- To instill confidence and face challenges

Unit 1 (6 hrs)

Behavioural Traits

- 1.1 Self Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and mannerisms
- 1.5 Experiential Learning – Based on activities

Unit 2 (5 hrs)

Team Work

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on activities

Unit 3 (5 hrs)

Time Management

- 3.1 Importance of time management
- 3.2 Planning and Prioritizing
- 3.3 Organizing skills
- 3.4 Action Plan
- 3.5 Experiential Learning – Based on activities

Unit 4 (5 hrs)

Conflict Resolution

- 4.1 Reasons for conflict
- 4.2 Consequences of conflict
- 4.3 Managing emotions
- 4.4 Methods of resolving conflicts
- 4.5 Experiential Learning – Based on activities

Unit 5

(5 hrs)

Career Mapping

- 5.1 Goal Setting and Decision Making
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv, (2002), **You Can Win**, Macmillan India Ltd., Delhi.

Mishra, Rajiv K., (2004), **Personality Development : Transform Yourself**, Rupa and Co., New Delhi.

Newstrom, John W. and Scannell, Edward E., (1980), **Games Trainers Play: Experiential Learning**, Tata McGraw Hill, New Delhi.

PATTERN OF EVALUATION (Totally Internal)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015-2016)

SOCIAL WORK PROFESSION – HISTORY, PHILOSOPHY AND IDEOLOGIES

CODE: 15SW/PC/SP14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquire knowledge on the evolution of Social Work and its emergence as a profession
- To comprehend its underlying ideologies, philosophical base, theories and approaches to practice
- To gain an understanding of current trends in Social Work practice

Unit 1

Historical Evolution of Social Work

(10 hrs.)

- 1.1 International Perspectives: UK, USA and Asian Perspectives
- 1.2 Social Work in India: Socio-Cultural and Religious Thought, Constitutional Safeguards; Social Reform Movements, Christian Missionaries, Gandhian Social Work, India as a Welfare State
- 1.3 Role and Contributions of Voluntary Organizations, NGOs and CSOs

Unit 2

Social Work Profession

(10 hrs.)

- 2.1 Meaning and Definition; Social Work as a Profession; Basic Concepts; Goals and Functions; Methods and Fields
- 2.2 Origin and Growth of the Profession in India: Scope of Professional Practice Problems and Status, International/National Bodies and Forums
- 2.3 Social Work Education; Importance of Fieldwork and Supervision; Problems and Status; Bodies/Forums in Education, Curriculum Recommendations of UGC

Unit 3

Social Work Ideologies, Theories and Approaches

(10 hrs.)

- 3.1 Ideologies: Philanthropy, Humanitarianism, Welfarism, Socialism, Democracy, Marxism, Equality, Human Rights and Social Justice
- 3.2 Analysis of Theories and Practice Models: Welfare, Developmental, Empowerment and Advocacy Models, Trend Analysis of Practice - from Welfare and Development to Rights Based Approaches

- 3.3 Approaches: Remedial, Rehabilitative, Preventive and Promotive Approaches, Rights Based, Participatory, Indigenous Approaches, Anti-Discriminatory Practice

Unit 4

Philosophy of Social Work Profession (12 hrs.)

- 4.1 Values and Beliefs: Respect for the Person, for Differences, for Individual's Right to Self-Determination and Self-Expression, Respect for Democratic Values and Diversity
- 4.2 Belief in the Value and Dignity of the Human Being
- 4.2.1 Uniqueness of Individuals, Groups and Community, Individual's Right to Fulfilment and Self-Actualization
- 4.2.2 Right for Equality, Reciprocal Rights and Responsibilities of Individuals and Society, Capacity of Individuals and Communities to Change
- 4.2.3 Principles: Acceptance, Individualization, Confidentiality, Client Participation, Non-Judgemental Attitude, Controlled Emotional Involvement
- 4.3 Code of Ethics: Evolution of Code of Ethics, Declaration of Ethics for Social Workers (SWEF -1997). International Association of Social Work-IASSW-2004

Unit 5

International Social Work (10 hrs.)

- 5.1 Concept, Definition and Meaning, Global Issues and Need for International Practice, Basic Concepts, Principles and Assumptions; Values, Beliefs and Goals; Practice Levels and Sectors; Global Forces Influencing International Practice
- 5.2 Approaches: Personal, Social, Developmental, Global; Multicultural, International and Transnational Practice Models; Global Agenda; Global Standards
- 5.3 Role of International Agencies: UN Agencies, INGOs and Human Rights Organisations; International Service-Delivery Programmes; Skills for International Practice ; Dilemmas in International Practice

BOOKS FOR STUDY

Cox David, Manohar Pawar, *International Social Work; Issues, Strategies and Programmes*. New Delhi; Vistaar. 2006.

Dominelli, L.D., *Social Work: Theory and Practice for a Changing Profession*. Cambridge: Policy. 2004.

Healy, L.M., *International Social Work: Professional Action in an Interdependent World*. New York: Oxford University Press. 2001.

Payne, M., *Modern Social Work Theory: A Critical Introduction*. Hong Kong: Maxmillan Education. 1991.

Watson David (ed), *Code of Ethics of Social Work-The Second Step*. London: Routledge and Kegan Paul. 1971.

BOOKS FOR REFERENCE

Antony A. Vass, *New Directions in Social Work- Social Work Core Knowledge Values and Skills*. New Delhi: Sage, 1996.

Deol Mark, *Contemporary Field Social Work*. New York: Sage, 2011.

Midgley, J., *Professional Imperialism: Social Work in the Third World*. London: Heinemann, 1981.

Midgley, J., *Social Work in International Context: Challenges and Opportunities for the 21st Century*. In M. Reisch & E. Gambrill (Eds.), *Social Work in the 21st Century* (pp. 59-67). CA: Thousand Oaks, Pine Forge, 1997.

Nagpaul, H., *The Diffusion of American Social Work to India*. New York: International Social Work, 1997.

NASW & Oxford University Press, *Encyclopaedia of Social Work*, London: Co-published by the NASW Press and Oxford University Press, 2008.

O'Neil Maria Joan, *The General Method of Social Work Practice*. New Jersey: Prentice Hall Inc, 1984.

Payne, M., *Social Work Education: International Standards*. In Hessle, S. (Ed.), *International Standard Setting of Higher Social Work Education*, Stockholm University; Stockholm Studies of Social Work, 2001.

Reisch Michael, Eileen Gambrill, *Social Work in the 21st Century*. New Delhi: Pine Forge Press, 1997.

Timms Noel, *Social Work Values - An Enquiry*. London: Routledge and Kegan Paul, 1983.

University Grants Commission, *I and II Review Commission on Social Work Education*. New Delhi: University Grants Commission, 1992.

Zastrow Charles, *Introduction to Social Work and Social Welfare*. New York: Sage, 2011

JOURNALS

Indian Journal of Social Work, Tata Institute of Social Sciences, Mumbai, India
Asia-Pacific Journal of Social Work and Development, National University of Singapore. Dept. of Social Work and Psychology, Singapore
International Social Work, Sage Publications, www.sagepub.com

WEB RESOURCES

isw.sagepub.com/content/51/6/847.citation

www.unv.org

www.un.org

www.worldbank.org

www.iassw-aiets.org: International Association of Schools of Social Work

www.icsd.info: International Consortium for Social Development

www.icsw.org: International Council on Social Welfare

www.ifsw.org: International Federation of Social Workers

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration -90mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)

Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)

Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)

Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 – 2016)

SOCIAL WORK WITH INDIVIDUALS

CODE: 15SW/PC/WI14

CREDITS: 4

L TP :4 00

TOTALTEACHINGHOURS : 52

OBJECTIVES OF THE COURSE

- To understand Social Case Work as a method of Social Work and develop skills in Social Work practice
- To comprehend theory and models and apply them in direct practice with individuals
- To become aware of the scope of using the methods in various settings

Unit 1

Introduction to Social Casework (12hrs.)

- 1.1 Historical Development of Social Case Work as a Method of Social Work Practice, Concept and Definitions
- 1.2 Philosophy, Values, Principles, Skills, Components of Social Case Work
- 1.3 Case Work Relationship: Empathy, Skills in Building Relationship, Transference and Counter Transference
- 1.4 Difference between Casework, Counselling and Psychotherapy

Unit2

The Helping Process (10hrs.)

- 2.1 Phase I- Psychosocial Study, Psychosocial Assessment
- 2.2 Phase II- Intervention Plan and Goal Setting, Intervention
- 2.3 Phase III- Termination, Evaluation and Follow up

Unit 3

Introduction to Models and Therapeutic Approaches of Case Work Practice (12hrs.)

- 3.1 Psychoanalytic Approach, Psychosocial, Functional, Client Centered, Cognitive Behaviour Therapy, Transactional Analysis
- 3.2 Life Model, Task Centered, Family Centered Approach, Systems Approach, Strength Based, Evidence Based Approach and Integrated Approach. Use of Eclectic Approach in Practice

Unit 4

Tools and Techniques in Working with Individuals (10hrs.)

4.1 Observation, Interviews, Home Visits, Collateral Contacts, Resource Mobilization, Referrals, Environment Modification, Communication

Unit 5

Recording in Case Work (8hrs.)

5.1 Uses and Types- Verbatim, Narrative, Condensed, Analytical, Topical, Summary Recording

5.2 Social Work Practice with Individuals in Different Settings and Limitations in Practice

5.3 Role of Casework in Hospital, School, Community, Institutional Setting and Industries

BOOKS FOR STUDY

Fischer, Joel. *Effective Case Work Practice: An Eclectic Approach*. New York: McGraw Hill, 1978.

Upadhyay, R.K., *Social Case Work*. Jaipur: Rawat, 2003.

Vyas, A.A. *New Directions in Social Work- Social Work Competencies- Core Knowledge, Values and Skills*. Delhi: Sage, 1996.

BOOKS FOR REFERENCE

Bhattacharya, Sanjay. *Social Work, An Integrated Approach*. New Delhi: Deep & Deep, 2004.

Datar Sudha, Ruma, Bawikar et al. *Skill Training for Social Workers- A Manual*. New Delhi: Sage, 2010.

Hamilton, Gordon, *Theory & Practice of Social Case Work 2nd Edition*. Jaipur: Rawat, Indian Reprint, 2013.

Hepworth, D.H. & J.A. Larsen. *Direct Social Work Practice: Theory and Skills*. Dorsey Press, 1993.

Hollis, F. *Case Work: A Psychosocial Therapy*. New York: Random House, 1964.

Mathew, Grace. *An Introduction to Social Casework*. Mumbai: TISS, 1992.

Misra, P.D. & Beena Misra. *Social Work Profession in India*. Lucknow: New Royal Book, 2004.

Perlman, Helen Harris, *Social Casework*, Chicago: The University of Chicago Press, 1957.

Pippins, J. *Developing Case Work Skills*. USA: Sage, 1980.

Trevithick, Pamela. *Social Work Skills – A Practice Handbook*. 2nd Edition. Jaipur: Rawat, 2009.

JOURNALS

Journal of Contemporary Social Services – Families in Society

Journal of Social Work Values & Ethics Open access journal published by White Hat Communications

WEB RESOURCES

<https://archive.org/details/whatisocialcase00mary>

www.socialworkers.org/practice/CaseManagementStandards2013.pdf

www.routledgesw.com/caseStudies

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 – 2016)

SOCIAL WORK WITH GROUPS

CODE: 15SW/PC/WG14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand Social Group Work as a method of Social Work and to develop skills in Social Work practice
- To comprehend theory and models and apply them in direct practice with groups
- To become aware of the scope of using the method in various settings

Unit 1

Introduction to Group Work

(10 hrs.)

- 1.1 Historical Development of Social Group Work as a Method
- 1.2 Definition and Meaning of Social Group Work
 - 1.2.1 Purpose, Objectives of Social Group Work
 - 1.2.2 Values, Skills of Social Group Work
- 1.3 Principles of Social Group Work
- 1.4 The Use of Groups in Social Work

Unit 2

Types of Groups

(10 hrs.)

- 2.1 Definition and Characteristics of Groups
- 2.2 Importance of Groups in Human Life
 - 2.2.1 Primary and Secondary Groups
 - 2.2.2 Formal and Informal Groups
 - 2.2.3 Open and Closed Groups
 - 2.2.4 Reference Groups
- 2.3 Treatment Groups: Educational, Growth, Remedial, T Groups, Group Psychotherapy, Group Counseling
- 2.4 Task Groups: Council, Committee and Team
- 2.4 Developmental Groups: Self-Help Groups, Support Groups

Unit 3

Phases of Group Work Process

(12 hrs.)

- 3.1 The Planning Phase: Establishing Group Purpose, Assessing the Potential Membership of the Group, Recruiting Members, Composing the Group, Orienting Members to the Group, Contracting, Preparing the Group Environment

- 3.2 The Beginning Phase: Introduction, Motivation, Member Feedback, Defining the Purpose, Objectives, Goal Setting, Assessment Process
- 3.3 The Middle Phase: Preparing for Group Meetings, Structuring the Group Work, Intervention Strategies in Groups-Programme Planning and Implementation – Meaning and Principles of Programme Planning. Monitoring and Evaluating the Group Process
- 3.4 The Ending Phase: Preparing for Termination; Evaluation and Feedback

Unit 4

Group Processes and Dynamics (12 hrs.)

- 4.1 Stages in a Group Development, The Influence of New Comers on Group Processes, Isolation, Rejection in Groups
- 4.2 Group-Bond, Sub Groups, Clique, Gang, Dyad, Triad, Group Norms
- 4.3 Group Membership, Group Cohesiveness, Group Pressure, Group Morale
- 4.4 Leadership, Team Building, Decision Making, Problem Solving, Conflict Management
- 4.5 Communication in a Group, Role Clarity in a Group, use of Sociometry

Unit 5

Group Work Models and Practice in different settings (8 hrs.)

- 5.1 Social Goals Model, Remedial Model, Reciprocal Model
- 5.2 Social Work Practice with Groups in different settings: Hospital, School Community, Industry and Institutional Setting
- 5.3 Recording in Group Work: Importance of Recording, Skills required for Recording in Group Work, Types of Recording in Group Work

BOOKS FOR STUDY

Bhattacharya, Sanjay. *Social Work an Integrated Approach*. New Delhi: Deep & Deep, 2008.

Choudhary, Paul. *Introduction to Social Work*. Delhi :Atma Ram & Sons, 1983.

Douglass, Tom. *Group Processes in Social Work – A Theoretical Synthesis*. New Delhi: Thomson, 1979.

Jha, Jainendra Kumar. *Encyclopaedia of Social Work*. New Delhi: Anmol, 2001.

Toseland, R.W. Rivas. R.F. *An Introduction to Group Work Practice*. New York: Macmillan, 1984.

BOOKS FOR REFERENCE

- Balagopal, P.R .Vassil, T.V. *Group in Social Work an Ecological Perspective*. New York: Macmillan, 1983.
- Barhard.*The Use of Groups in Social Work Practice*.USA :Routlede&Kegan Paul,1975.
- Bhatt R.M. *Records of Group Work Practice in India*.Baroda University : Baroda,1960.
- Doel, Mark &Sawda, Catherine.*The Essentials of Group Worker*. London: Jessica Kingsley,2003.
- Garvin, Charlesd.D.Gutierrez, Lorraine .M. Galinsky, Maeda. J. *Handbook of Social Work with Groups*. New York :The Guildford,.2006.
- Johnson and Johnson..*Joining Together: Group Theory and Group Skills*. New Delhi: Premier, 1982.
- Konopka Gisela. *Social Group Work – A Helping Process*.London: Prentice Hall, 1963 2nd Edition.
- Mark,Doel.*Using GroupWork*.London:Routledge, 2010.
- Milson, Fred.*An Introduction to Group Work Skills*, London: Routledge and Kegan Paul, 1973
- Misra P.D. and BeenaMisra.*Social Work Profession in India*.Lucknow:New Royal,1979
- Trecker.Harleigh, B. *Social Group Work- Principles and Practice*. New York: Association Press, 1970.

JOURNALS

The Journal for Specialists in Group Work, Taylor&Francis ISSN ...
DOI:10.1080/01933922.2014.995042;

Group Work, Whiting and Birch, ISSN 0951-824X (Print) 1746-6091 (Online)

WEB RESOURCES

<https://ujdigispace.uj.ac.za/bitstream/handle/10210/1264/Grace3.pdf?sequence=3>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015-2016)

ALTERNATIVE MEDIA SKILLS WORKSHOP

CODE: 15SW/PA/AM11

CREDIT:1

LTP:002

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To develop in students Alternative Media Skills through an understanding of theory and skills practice sessions
- To integrate Alternative Media Skills in Social Work practice
- To learn the different forms of folk arts

Unit 1

Alternative Media Skills

(2 hrs.)

1.1 Critic of Mainstream Media

1.2 Introduction to Alternative Media Skills

1.3 The Importance of Alternative Media Skills in Social Work Practice

Unit 2

Different forms of folk art

(9hrs.)

2.1 Street Theatre

2.2 Folk Songs

2.3 Folk Dances

2.4 Puppetry

Unit 3

Over view and Presentations

(2 hrs.)

3.1 Print Media : News Letter, Posters, Flip Charts

3.2 Electronic Media: Documentary Films and Community Radio

3.3 Human Media : Inter personal Communication and Intra Personal Communication

3.4 Analyzing Media Ethics

Unit 4

Final performance in the Community

(13 hrs.)

PATTERN OF EVALUATION

Internal Assessment

Participation and Performance-50 marks

End Semester Examination Not applicable

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015- 2016)

COMMUNITY ORGANISATION AND SOCIAL ACTION

CODE: 15SW/PC/CO24

CREDITS: 4

LTP: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand a community, its functioning and problems
- To acquire knowledge of the various techniques and skills of Community Organization and Social Action as methods of Social Work
- To learn the basic methods and approaches towards understanding Community Organisation and Social Action

Unit1

Community

(13 hrs.)

- 1.1 Definition, Sociological Concept of Community; Theories of Communities
- 1.2 Community as a Social System; Subsystems in the Community; Types of Communities and their Characteristics
- 1.3 Community Power Structure: Concept of Community Power
- 1.4 Types of Community Power: Political, Social and Economic Analysis of Community Power; People's Power-Its Place in Communities
- 1.5 Community Dynamics: Integrative and Disintegrative Process; Participative Groups and Groupism; Factions and Subgroups; Minority Groups; Decision Making and Problem Solving Processes

Unit2

Historical Background of Community Organisation

(13 hrs.)

- 2.1 Community Organization in UK and USA:
- 2.2 Evolution of CO as a method in Social Work in India, Latin America and Africa
- 2.3 Community Organisation: Definition, Rationale, Philosophy, Principles, Goals, Scope of CO in India
- 2.4 Community Organization Models: J. Rothman, Social Planning, Locality Development and Social Action
- 2.5 Approaches by Murray Ross-General Content, Specific Content and Process Objective

Unit3

Process and Skills of Community Organisation (4 hrs.)

- 3.1 Analysis, Study, Assessment, Discussions, Organization, Action, Evaluation, Modification, Continuation
- 3.2 Skills of CO Worker - Communication, Training, Consultation, Organizing, Enabling, Facilitating, Public Relations, Mobilizing, Participatory Skills, Liaisoning

Unit4

Social Action as a Method of Social Work (8 hrs.)

- 4.1 Concept, Definition, Aims and Objectives, Scope, Social Action as a method in Social Work
- 4.2 Paradigm of Five Elements: Causes, Change Agent, Change Target, Change Channels, Change Strategy
- 4.3 Strategies and Tactics for Social Action: Channels Typology- Influence Channels, Responsive Channels; Strategies, Power, Persuasive, Re-Educative, Reform and Political Change Strategies
- 4.4 Social Worker as an Activist, Role and Personality Requirements
- 4.5 Skills of a Social Activist - Mediation, Advocacy, Negotiation, Conflict-Resolution

Unit5

Models and Approaches to Social Action (14 hrs.)

- 5.1 Introduction to Models of Social Action- Paulo Freire- Pedagogy of the Oppressed, Gandhi- Rural Reconstruction, Martin Luther King-Civil Rights Movement, Saul Alinsky- Radical Movement, Gene Sharp- Nonviolence Revolutionary Movement
- 5.2 Introduction to Social Action Movements in India - Environmental Movements (Narmada BachaoAndolan, Chipko Movement), Tribal Movements, Dalit Movements

BOOKS FOR STUDY

Christopher A.J. & Thomas, William. New Delhi. *Community Organisation and Social Action*. New Delhi: Himalaya, 2009.

BOOKS FOR REFERENCE

Gangrade K.D, *Community Organisation in India*. New Delhi: S Chand, 1972

Harper Ernest B, *Community Organisation in Action*. New Delhi: Vikas, 1973

Walter A. Friedlander Hall, *Concepts & Methods of Social Work*. Delhi: Prentice Hall, 1977.

Myrada Resource book, *Enhancing Ownership and Sustainability*. Bangalore: 2001.

Zaltman, G. Philip Kotler, Ira Kaufman, *Creating Social Change*. Sydney: Holt Renschart & Winston, 1972.

Kramer Ralph M, *Readings in Community Organisation Practice*. Delhi: Prentice-Hall, 1972.

McMillen Wayne, *Community Organisation for Social Welfare*, Chicago: The University of Chicago Press, 1952.

Community First Word, *Community Organisation: An Introduction*, The National Council of Social Service, 1972.

JOURNAL

Development – Quarterly

Yojana - Monthly

WEBRESOURCES

<http://ignou.ac.in/upload/bswe-03-block1-unit-3-small-size.pdf>

<http://Community Organisation: Concepts and Principles - IGNOU>

[http:// Beyond intractability .org](http://Beyond intractability.org) Social Action

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)

Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)

Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)

Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015-2016)

SOCIAL WORK RESEARCH AND STATISTICS

CODE: 15SW/PC/SR24

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the nature, principles and methods of Social Work Research
- To develop the skills of independently conceptualising a problem and executing a research study
- To understand and learn the application of appropriate statistical techniques in Social Work Research

Unit 1

Social Work Research – An Introduction

(10 hrs.)

- 1.1 Basic Elements of Scientific Method
- 1.2 Social Work Research – Definition, Objectives, Scope and Limitations
- 1.3 Scientific Attitude, Ethics in Social Work Research
- 1.4 Quantitative and Qualitative Research
- 1.5 Planning a Research Project: Problem Formulation, Framing Objectives, Defining Concepts, Use of Theorization in Review of Literature, Variables: Definition and Function; Assumptions – Hypotheses, Types of Hypotheses

Unit 2

Design of Research

(12 hrs.)

- 2.1 Definition and Functions
- 2.2 Types of Designs: Survey, Case Study, Exploratory, Descriptive, Explanatory, Experimental, Evaluative (single case evaluation) Census Study, Ex-Post Facto, Action and Participatory Designs
- 2.3 Applications and Limitations of Various Designs
- 2.4 Sampling Methods -Definition
- 2.5 Types of Sampling: Probability Sampling – Simple, Systematic, Stratified, Multi-Stage Non-Probability Sampling – Purposive, Quota, Cluster, Snowball
- 2.6 Sampling Error

Unit 3

Methods and Tools of Collecting Data (10 hrs.)

- 3.1 Observation – Participant, Non-Participant, Process of Observation
- 3.2 Interview Schedule, Interview Guide
- 3.3 Questionnaire, Scaling Techniques and Types
- 3.4 Reliability and Validity of Tools
 - 3.4.1 Concept of Reliability, Factors Affecting Reliability of an Instrument, Methods of Determining Reliability of a Tool
 - 3.4.2 Concept of Validity, Types of Validity
- 3.5 Data Processing
 - 3.5.1 Manual and Computerized Data Presentation
 - 3.5.2 Editing, Coding, Preparation of Master Sheet, Tabulation and Interpretation
 - 3.5.3 Report Writing, Research Abstracts

Unit 4

Overview of Qualitative Research (8 hrs.)

- 4.1 Nature of Qualitative Research, Assumptions, Characteristics
- 4.2 Tools of Data Collection – Key Informant, Focus Group Discussion, Participatory and Rapid Appraisal Techniques
- 4.3 Process of Qualitative Research

Unit 5

Application of Statistics in Social Work (12 hrs.)

- 5.1 Statistics in Social Work: Normal Distribution, Characteristics of a Normal Curve
- 5.2 Levels of Measurement– Nominal, Ordinal, Interval and Ratio
- 5.3 Measures of Central Tendency – Mean, Median, Mode and their Uses
- 5.4 Measures of Dispersion – Range, Quartile Deviation, Mean Deviation, Standard Deviation
- 5.5 Use of Graphs in Presentation of Data

- 5.6 Tests of Significance
 - 5.6.1 Hypothesis Testing, Type I and II Error
 - 5.6.2 Level of Confidence, Degrees of Freedom, Chi Square and t-Test
 - 5.6.3 Measures of Correlation – Product Moment, Spearman's Rho
 - 5.6.4 ANOVA and Regression (knowledge of application)

BOOKS FOR STUDY

Gupta, S.P. *Statistical Methods*. New Delhi: Sultan Chand and Sons, 2003.

Kumar, Ranjit, *Research Methodology. A Step-by-Step Guide for Beginners*. London: Sage, 1996.

Lal Das, D.K., *Designs of Social Research*. Jaipur: Rawat, 2005.

Ramachandran P., *Survey Research for Social Work*, Bombay: Institute for Community Organisation Research, 1993.

Rubin, Allen and Earl, Babbie. *Research Methods for Social Work*. New Delhi: Cengage Learning, 2011.

BOOKS FOR REFERENCE

Alston, Margaret and Wendy Bowles. *Research for Social Workers – An Introduction to Methods*. 2nd ed, Jaipur: 2003.

Bohrstedt, George W. and David Knoke, *Statistics for Social Data Analysis*. 2nd ed., Illinois: Peacock, 1988.

Marlow Christine R., *Research Methods for Generalist Social Work*. 3 Ed. USA: Brooks/Cole, 2001.

Garrett, Henry E. *Statistics in Psychology and Education*. New Delhi: Paragon, Indian Reprint, 2011.

Mark, Raymond. *Research Made Simple – A Handbook for Social Workers*. New Delhi: Sage, 1996.

Thakur, Devendra. *Research Methodology in Social Sciences*. New Delhi: Deep and Deep. 1993.

JOURNALS

Oxford Journal - Social Work Research
Research on Social Work Practice – Sage Journals

WEB RESOURCES

Social Work Research Questia.com
Taylor & Francis - Health & Social Care Open Access Research

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

INTEGRATED PRACTICE IN SOCIAL WORK

CODE: 15SW/PC/IP24

CREDITS : 4

L T P : 400

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students to have a holistic perspective in Social Work practice
- To equip the students with knowledge and skills in the Integrated Method of Social Work Practice

Unit 1

Introduction to Integrated Social Work

(10 hrs.)

- 1.1 Integrated Social Work Practice as a Method in Social Work; Theoretical Foundations-General Systems Theory, Ecological Systems Theory; Human Beings in a Systems Framework
- 1.2 Goals and Purpose of Social Work in Systems Approach
- 1.3 Basic Systems in Social Work Practice – Change Agent System, Client System, Action System and Target System; Resource Systems

Unit 2

Integrated Social Work Practice

(6 hrs.)

- 2.1 Philosophy - Direct and Indirect Practice
- 2.2 Levels of Social Work Practice- Practice at the Micro, Mezzo and Macro Levels
- 2.3 Linking Micro and Macro Practice
- 2.4 Phases in the Integrated Social Work Process- Pre-Intervention, Intervention and Post- Intervention Phases

Unit 3

(12 hrs.)

Pre-Intervention Phase

- 3.1 Interaction and Engagement
- 3.2 Assessment: Definition, Exploring and Understanding Challenges and Strengths. Interaction of Multiple Systems in Human Problems- Interpersonal, Intrapersonal and Environmental Systems
- 3.3 Developing Goals: Goal Setting, Factors Influencing Development of Goals, Goal Negotiation
- 3.4 Formulating Contracts: Rationale, Types of Contracts, Sample Contracts
- 3.5 Skills in the Pre Intervention Phase

Unit 4

Intervention Phase

(12hrs.)

- 4.1 Goal Attainment Strategies
- 4.2 Service Co-ordination, Inter Organisation Collaboration and Referrals
- 4.3 Skills in the Intervention Phase

Unit 5

Post-Intervention Phase

(12 hrs.)

- 5.1 Evaluation-Single System Design and Research Techniques in Evaluation. Programme Evaluation- Summative and Formative Evaluation
- 5.2 Components of Termination –Disengagement, Stabilisation of Change, Types of Termination-Planned and Unplanned
- 5.3 Recording
- 5.4 Skills in the Post Intervention Phase

BOOKS FOR STUDY

Hepworth, D., H., and Larsen, J., A., *Direct Social Work Practice - Theory and Skills*. London: The Dorsey Press, 1993.

Johnson, Louise, *Social Work Practice - A Generalist Approach*. London: Aelyn and Bacon, 1983.

BOOKS FOR REFERENCE

Bogo, M.; *Social Work Practice- Concepts, Processes and Interviewing*. Jaipur: Rawat, 2006.

Devi, R., and R.Prakash, *Social Work Methods - Practices and Perspectives*. Vol. 1, 2, 3, Jaipur: Mangal Deep, 2004.

Encyclopedia of Social Work, Vol. 1, 2, 3 *National Association of Social Workers*. Washington D.C.: NASW, 1996.

Goldstein, H., *Social Work Practice - A Unitary Approach*. Columbia: University of South Caroline Press, 1980.

Johnson, L.C., Yanca, S.T., *Social Work Practice- A Generalist Approach*. Delhi: Prentice Hall, 2012

Payne, M, *Modern Social Work Theory*. New York: Palgrave Mac Milan, 2005.

Pincus, A., and Minahan. A, *Social Work Practice Model and Method*. Illinois Peacock , 1973.

JOURNAL

Journal of Social Work Practice

WEB RESOURCES

http://books.google.co.in/books/about/Direct_Social_Work_Practice.html

<https://journals.iupui.edu/index.php/advancesinsocialwork>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)
1 Compulsory Continuous Assessment Test will be conducted.
1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

HUMAN RIGHTS AND SOCIAL WORK

CODE: 15SW/PC/HR24 CREDITS : 4

L T P :4 0 0
TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To provide a perspective and foundation for a human rights culture among students
- To create awareness on the Indian legal system in relation to human rights
- To enable students to work for the promotion and protection of rights of marginalised groups

Unit 1

Introduction to Human Rights (8 hrs.)

- 1.1 Concepts of Human Rights
- 1.2 Categories of Human Rights
- 1.3 Foundation of Human Rights
- 1.4 Evolution of Human Rights
- 1.5 International Human Rights Law and its Application

Unit 2

Understanding Law and the State (10 hrs.)

- 2.1 Indian Constitution: Preamble, Fundamental Rights, Directive Principles
- 2.2 Human Rights Protection and Enforcement
- 2.3 Writ Jurisdiction and Public Interest Litigation
- 2.4 The Indian Legal System, Indian Penal Code, Criminal Procedure Code and Civil Procedure Code
- 2.5 The Relationship between Human Rights, Democracy, Sustainable Development, Equality, Sovereignty, Secularism and Non-Discrimination
- 2.6 Human Rights in Relation to Illegal Detention

Unit 3

Globalisation and Poverty (10 hrs.)

- 3.1 Globalisation and its Impact on the Poor
- 3.2 Business Corporations and Human Rights Standards, Science, Technology and Human Rights
- 3.3 TRIPS, WTO and SEZ

Unit 4

Law and Strategies. (12 hrs.)

- 4.1 Protection of the Environment, Consumer Protection, Local Governance Empowerment, Right to Information
- 4.2 Human Rights Struggles and the Human Rights Movement in India
- 4.3 Statutory Commissions
- 4.4 Human Rights Courts for Protection of Rights

Unit 5

Human Rights and Social Work Activism (12hrs.)

- 5.1 Sectoral Rights: Rights of Children, Women, Marginalised Groups, Coastal Communities, Workers
- 5.2 Minorities, Unorganised Labourers, Urban Poor
- 5.3 Transgender Persons and Rights of the Displaced, Disabled and Elderly
- 5.4 Strategies and Skills for Human Rights Advocacy

BOOKS FOR STUDY

Eugene Karneka. *Human Rights*. London: Edward, 1978.

Waghmare B.S. *Human Rights: Problem and Prospects*. New Delhi: Kalinga, 2001.

BOOKS FOR REFERENCE

Chandra, U. *Human Rights, India*. Allahabad Law Agency, 2000.

Krishna V.R. Iyer. *Human Rights and Inhuman Wrongs*. United Kingdom: B.R., 2001.

Kumar Arvind. *Encyclopaedia of Human Rights, Violence and Non Violence, Vol. I*. Human Rights and Social Movements. New Delhi: Anmol, 2001

Parmar Lalit. *Human Rights*. New Delhi: Anmol, 1998.

Sharma R.S. *Human Rights Development*. New Delhi: Common Wealth, 1997.

Subramaniam S. *International Challenges, Vol 1 and Vol 2*. Mumbai: Manas, 1997.

JOURNALS

The International Journal of Human Rights ISSN 1364 - 2987

WEB RESOURCES

www.troniefoundation.org

www.humanrights.com/

www.youthforhumanrights.org

www.humanrights.gov

www.amnesty.org

<http://www.ohchr.org/EN/Issues/Pages/WhatareHumanRights.aspx>

<http://nhrc.nic.in/>

<http://www.ipc.in/>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015-2016)

SOFT SKILLS

CODE: 15SW/PK/SS22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To provide an opportunity for self- development
- To imbibe key principles that empower students to enhance personal potential
- To enhance professional competencies

The course will be conducted through experiential learning based on activities

Unit 1

Enhancing Competency

(6 hrs.)

- 1.1 Lateral, Creative and Critical Thinking
- 1.2 Leadership Skills, Advocacy Skills
- 1.3 Documentation Skills

Unit 2

Team Building Skills

(6 hrs.)

- 2.1 Concept of Team Building, Objectives, Goals
- 2.2 Team Building Process and Tasks, Effective Teams, Barriers to Team Building
- 2.3 Collaborative and Networking Skills

Unit 3

Conflict Resolution Skills

(6 hrs.)

- 3.1 Reasons for Conflicts
- 3.2 Solving Conflicts
- 3.3 Negotiation Skills

Unit 4

Career Mapping Skills

(8 hrs.)

- 4.1 Identifying Personal and Professional Competencies
- 4.2 Identifying Career Path
- 4.3 Building a Resume, Facing an Interview, Group Discussion

BOOKS FOR REFERENCE

Bishop Sue, David Taylor, *Training for Change*. New Delhi: Viva Books. 2002.

PATTERN OF EVALUATION

Continuous Assessment

Total Marks – 50

Classroom exercises in self development	- 20 marks
Assignment	- 20 marks
Participation and Communication in classroom	- 10 marks

End Semester Examination- Not Applicable

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

HEALTH INFORMATION AND COMMUNICATION WORKSHOP

CODE: 15SW/PA/HI21CREDIT : 1

L T P : 002
TOTAL TEACHING HOURS: 26

OBJECTIVES OF THE COURSE

- To provide basic health information and education to the students
- To understand the need for communication in health education
- To enhance skill demonstration in health education

Unit 1 **(9 hrs.)**

Health Information

- 1.1 Symptoms, Causes, Prevention, Treatment and Control of Major Communicable Diseases –Leprosy, TB, STD, Poliomyelitis, Malaria, Cholera, Typhoid, Diarrhoea , HIV/AIDS
Major Non Communicable Diseases- Cancer, Diabetes, Hypertension, Asthma, Cardiac Disorder, Mental Disorders
- 1.2 Clinical Manifestation of Mental Retardation, Alcoholism and Drug Dependence
- 1.3 Basics in First Aid
- 1.4 Menstrual Hygiene

Unit 2 **(2 hrs.)**

Health Education

- 2.1 Concept, Objectives, Principles of Health Education; Need in the Indian context
- 2.2 Models and Methods of Health Education
- 2.3 Planning, Implementation, Evaluation and Promotion of Health Education Programmes
- 2.4 Role of Health Educator

Unit 3 **(2 hrs.)**

Communication in Health Education

- 3.1 Concept of Health Communication as a Process, Principles and Barriers in Communication
- 3.2 Behaviour Change Communication and Information Education and Communication

Unit 4

(13 hrs.)

Use and Preparation of Educational Aids

- 4.1 Audio Aids – Megaphone
- 4.2 Visual Aids – Blackboard, Pictures, Cartoons, Photographs, Posters, Charts, Flashcards, Flannel Boards, Printed Materials – Books, Booklets, Pamphlets, Brochure
- 4.3 Traditional Media – Folk Songs, Folk Dance, Drama
- 4.4 Demonstration of Low-Cost Nutritive Food

BOOKS FOR STUDY

Park, K., *Preventive and Social Medicine*. Jabalpur: Banarsidas Bharat, 1997

REFERENCE BOOKS

Nanda, V.K., *Health Education*. New Delhi: Anmol, 1997.

Ramachandran, L, & Dharmalingam, *Health Education – A New Approach*. New Delhi: Vikas, 1993.

Goel, S.L., *Health Care System and Management*. (Vol. 2), New Delhi: Deep & Deep, 2001

JOURNALS

International Journal of Health Education

Journal of Human Nutrition

WEB RESOURCES

Church M, Doughty J. Value of Traditional Food Practices in Nutrition Education. *J Hum Nutr*. 1976 Feb;30(1):9–12. [[PubMed](#)]

Moynihan M, Kochar V, Sarma UC, Tandon J, Wantamutte AS, Rai PH, Marwah S, Gupta VM, Singh K. Training Folk Practitioners as PHWs in Rural India. *Int J Health Educ*. 1980;23(3):167–178. [[PubMed](#)]

Moynihan M, Mukherjee U. Visual Communication with Non-literates: A Review of Current Knowledge including Research in Northern India. *Int J Health Educ*. 1981;24(4):251–262. [[PubMed](#)]

PATTERN OF EVALUATION

Internal Assessment

Seminar Presentation using educational aids prepared by student – 25 marks

Demonstration- Preparation of low cost nutritious food- 25 marks

Total – 50 marks

End Semester Examination- Not Applicable

STELLAMARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

MANAGEMENT FOR NON PROFIT ORGANISATIONS

CODE: 15SW/PC/MO34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand procedures and policies involved in establishing and maintaining non- profit organisations
- To understand principles of management and develop effective leadership qualities in managing NGOs
- To develop skills to formulate, execute and evaluate projects
- To acquire legal knowledge pertaining to NGO management

Unit 1

Introduction

(11 hrs.)

- 1.1 Concept of Management in India, Types of Non-Profit Organisations - NGO, INGO, Quasi Government and Transnational NGO
- 1.2 A Historical Perspective, Role of Non- Profit Organisations
- 1.3 Scope for Scientific Management in Welfare Organisations
- 1.4 National Policy on the Voluntary Sector - 2007

Unit 2

Management

(13 hrs.)

- 2.1 Basic Concepts and Principles; Goals of Management
- 2.2 Management Functions: Concept and Principles of Management Planning, Policy Making, Goal Setting, Organisation, Staffing
- 2.3 Coordination, Communication, Supervision and Control, Financial Planning
- 2.4 Public Relations and Publicity
- 2.5 Reporting and Evaluation

Unit 3

Acts Related to NGOs

(13 hrs.)

- 3.1 Board, Trustee, Committees, Executives – Their Roles and Function, Laws Related to NGOs
- 3.2 Society's Registration Act 1860
- 3.3 Companies Act 2013
- 3.4 Trust Act of 1912
- 3.5 Co-operative Societies Act 1912
- 3.6 FCRA Related Issues, FEMA (Foreign Exchange Management Act, 1999)

Unit 4**Project Cycle Management****(5 hrs.)**

- 4.1 Concept of Project and Project Cycle Management
- 4.2 Strategic Plan, Tactic Plan, Goals, Objectives, Reporting
- 4.3 Project Proposal Writing, Overview of Logical Framework Analysis
- 4.4 Types of project proposals, Fund-Raising (Types, Methods, Skills), Monitoring and Evaluation of Projects

Unit 5**Networking and Collaboration****(10 hrs.)**

- 5.1 Need and Importance, Process of Networking, Strength and Values of Networking
- 5.2 Collaborating with GOs, NGOs, Corporates, INGOs and UN Agencies

BOOKS FOR STUDY

Anand Sirohi. Encyclopaedia of Social Welfare: Modern Perspective on Social Work (Vol 1,2,3). New Delhi: Dominant, 2003.

Aswathappa K. *Organizational Behaviour, 7th revised edition*. Mumbai: Himalaya, 2007.

Sankaran R. & Rodrigues. *A Handbook to the Management of Voluntary Organizations*. New Delhi: Alpha, 1983.

BOOKS FOR REFERENCE

Monappa Arun & Saiyadain Miza, S.. *Personnel Management*. New Delhi: TATA Macgraw, 1997.

Carroll, Stephen Jr. & Tosi, Henry, Jr. *Management by Objectives*. New York: MacMillan, 1973.

Desai, Vasant. *Project Management*. Mumbai: Himalaya, 1997.

James David. *Managing People in Organizations*. New Delhi: AITB.S, 2002.

Koontz Harold. *Management*. New York: Harper Brother's.,1987.

Laxmi Devi. *The Management*. New Delhi: Institute for Sustainable Development, Lucknow, Anmol, 1998.

Lalitha,N.V. *Financial Assistance to Voluntary Organizations for Development*. New Delhi: NIPCCD, 1981.

Lalitha N.V. *Status of Voluntary Effort in Social Welfare*. New Delhi: NIPCCD,1982.

Luthans Fred. *Organizational Behaviour, 8th Edition*. New Delhi: Tata McGraw Hill, 2005.

Mital R, Kumar. *Personnel Management and Industrial Relations*. New Delhi: Anmol, 2001.

Maheshwari S.N. *Management Accounting and Financial Concept*. New Delhi: Sultan Chand & Sons, 1998.

Odione, George. *Management by Objectives*. New York: Pitman Publishing, 1965.

Prasad, L.M. *Organisational Behaviour, 4th edition*. New Delhi: Sultan Chand and Sons, 2004.

Prasad, Man Mohan. *Management Concepts*. New Delhi: Himalaya Publishing, 1998.

Prasad, Lallan and Gulshan S.S. *Management Principles and Practice*. New Delhi: Chand, 2002.

Seshadri, T.R. *Management Lighter and Brighter Sides*. New Delhi: Good Will. 1995.

Sherlekar, S.A. *Modern Business Organization & Management*. Bombay: Himalaya. 1984.

Sharma, K.P. *Project Management*. New Delhi: National Book Trust, 2000. Sinha Kumar. Ajil

Sen, Kumar Raj. *Economics of Amartya Sen*. New Delhi: Deep and Deep, 2000. Thomas L.

Wheelen J. David Higher. *Essential of Strategic Management*. New Delhi: Prentice Hall of India. 2002.

WEB RESOURCES

<http://www.inc.com/encyclopedia/nonprofit-organizations-and-human-resources-management.html>

www.cfcu.gov.tr/spos/tools/pcm_training_handbook.pdf

http://www.ngosindia.com/resources/ngo_registration1.php

http://www.managementstudyguide.com/management_functions.htm

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)

Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Section – A 10 x 2 = 20 marks

Section – B 4 x 10 = 40 marks

Section – C 2 x 20 = 40 marks

Duration - 3 Hours

(All questions to be answered in 50 words each)

(4 out of 6 questions to be answered in 600 words each)

(2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 - 2016)

DISSERTATION

CODE: 15SW/PC/DI35

CREDITS: 5

Guidelines

- **Page Limit:** The Dissertation can range from 50 to 75 pages typed in Times New Roman font style, size 12, with 1½ line spacing in A4 Size Paper.

- **Each dissertation should have the following on the cover page:**
 - Logo of the College
 - Title of the Dissertation
 - ‘Dissertation submitted toin partial fulfillment of the requirement for the Degree of Master of Social Work by *Name of the candidate, Department No., Department of Social Work, Month, Year.*

- **The Dissertation includes**
 - Contents Page
 - Certificate of the Research Guide and Head of the Department and Acknowledgement by the Candidate
 - Chapter I – Includes Introduction to the Study; Review of Literature, Scope and Significance of the Study; Research Methodology and Chapterisation
 - Chapter II - Includes the Analysis and Interpretation of Data
 - Chapter III – includes the Summary of the Study, Findings, Suggestions and Conclusion
 - Bibliography / References shall be given in the alphabetical order according to MLA Format 7th edition
 - Appendix will include the tool of data collection and other secondary information

- **Submission**
 - Each student shall submit two copies of the dissertation to the Head of the Department on the date specified by the Controller of Examinations. One copy of the dissertation will remain in the College

➤ **Guidelines for Evaluation**

- Continuous Assessment	50 marks
- 1. Formulating a research problem	5
Review of Literature	
- 2. Conceptualising a research design	5
Concepts, Variables, Hypothesis and Research Questions	
- 3. Constructing an instrument/s for data collection	5
4. Selecting a sample	5
5. Research Proposal	5
6. Collection of data	5
- 7. Processing of data	5
- 8. Analysis and Interpretation	5
- 9. Research Report	5
- 10. Regularity and Punctuality	5
Total	50

End Semester Examination

Total Marks - 50

- Background to the Study / Review of Literature	5
- Methodology and presentation of the theme	5
- Analysis	10
- Style, format and neatness in presentation	5
- Dissertation	25
- Viva Voce	25
Total	50

The dissertation will be valued by the Research Guide and an External Examiner. Each Examiner will evaluate the dissertation for a maximum of 50 marks each. The External Examiner will conduct the Viva Voce. An aggregate of the two marks will be the final marks awarded for the dissertation out of a total of 100 marks.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015-2016)

COUNSELLING - THEORY AND PRACTICE

CODE:15SW/PC/CN44

CREDITS : 4

L T P : 3 0 1

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop in students basic Counselling skills through an understanding of theory and skills
- To integrate Counselling skills in Social Work Practice
- To learn the different approaches to Counselling and develop a holistic approach to Counselling

Unit 1

Concept and Foundation of Counselling (8 hrs.)

- 1.1 Evolution of Counselling, Definition, Elements and Characteristics of Counselling, Counselling Ethics
- 1.2 Profile of the Counsellor and the Client, the Counselling Relationship
- 1.3 Concept of Self, Goal Directed Behaviours, Learning Principles, Developmental Needs at Different Stages
- 1.4 Difference between Counselling and Psychotherapy

Unit 2

Counselling - Expectations and Goals (6 hrs.)

- 2.1 Achievement of Positive Mental Health, Resolution of Problems, Improving Personal Effectiveness, Change, Decision Making, Modification of Behaviour
- 2.2 Burn out and Stress Management
- 2.3 Recording in Counselling: Importance of Recording, Skills required for Recording, Types of Recording in Counselling

Unit 3

Egan Model of Counselling – the Skilled Approach (18 hrs.)

- 3.1 Stage – 1 Problem Exploration and Clarification
- 3.2 Stage – 2 Integrative Understanding / Dynamic Self-Understanding
- 3.3 Stage-3 Facilitating Action; Developing a New Perspective; Preferred Scenario
- 3.4 Practical Sessions

Unit 4

Different Approaches and Types of Counselling (10 hrs.)

- 4.1 Adlerian Approach, Client centred Approach, Cognitive Behavioural Approach
- 4.2 Gestalt Counselling, Transactional Analysis, Solution focused Counselling
- 4.3 Crisis Intervention
- 4.4 An Overview of Alternate Approaches: Yoga, Meditation, Storytelling, Art Therapy, Psychodrama, Medical Clowning, Laughter Therapy, Movement Therapy, Neuro- linguistic Programming
- 4.5 Directive Counselling, Non-Directive Counselling
- 4.6 Individual Counselling, Group Counselling, Community Counselling
- 4.7 Integrative and Eclectic Approach to Counselling

Unit 5

Counselling in Different Settings (10 hrs.)

- 5.1 Family Counselling/Marital Counselling, School Counselling, Career Counselling
- 5.2 Industrial Counselling, De-addiction Counselling
- 5.3 Counselling in Disaster situations, Grief Counselling
- 5.4 Counselling Clients with Suicidal Ideation
- 5.5 Gerontological Counselling

BOOKS FOR STUDY

Dalaganjan Naik. *Fundamentals of Guidance and Counselling*. Delhi: Adhyayan , 2004.

Egan Gerard. *The Skilled Helper*. Brooks: Cole, 1982.

Rao S.Narayana. *Counseling Psychology*. Tata Mc GrawHill, 1981.

Sharma Ramnath and Sharma Rachana. *Guidance and Counseling in India*. New Delhi: Atlantic, 2004.

BOOKS FOR REFERENCE

Reeves, Andrew. *Counselling and Psychotherapy*. New Delhi: SAGE, 2013.

Carl R. Rogers. *On Becoming A Person*. Boston: Houghton Mifflin,1976.

Colin, Feltham. *Brief Counselling*, New Delhi: *Tata McGraw Hill* , 2010.

Thomas, Edwin J. *Designing Interventions for the Helping Professions*. New Delhi: Sage, 1984.

Eugene, Kennedy. *Crisis Counselling*. Dublin: Gill & Macmillan, 1981.

Eugene, Kennedy. *On Becoming a Counsellor*. Dublin: Gill & Macmillan, 1977.

Gibson, L. Robert & Mitchell. *Introduction to Counselling and Guidance*.
New Delhi: Prentice Hall, 2008.

Muaro, E. A. R. J. Manthei .J.J. Small. *Counselling- A Skills Approach*. New Zealand:
Methuen, 1983.

Stephen, Murgatroyal. *Counselling and Helping*. London: The British Psychological Society &
Methuen, 1985.

Steve, Duck. *Human Relationships*. New Delhi: Sage III Edition, 1999.

Tolbert, E.L. *An Introduction to Guidance*. Boston: Little Brown, 1982.

William, Worden , J. *Grief Counseling & Grief Therapy*. London: Tavistock, 1986.

JOURNALS

International Journal of Psychology and Counselling
British Journal of Psychotherapy

WEB RESOURCES

<http://www.slideshare.net/praveensureshpai/counseling-process>

<http://www.counselling-directory.org.uk/counselling.html>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)

Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)

Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)

Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015-2016)

GENDER AND SOCIAL WORK PRACTICE

CODE: 15SW/PC/GS44

CREDITS: 4

LTP : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To gain a deeper understanding of gender as a social construct, gender relations and gender issues in society
- To understand the protective measures, policies and programmes for women and development
- To obtain knowledge in Feminist Social Work practice and skills in applying frameworks for gender analysis

Unit 1

Gender Concepts

(9 hrs.)

- 1.1 Sex and Gender, Gender as a Social Construct, Gender Identity; Gender Relations, Men and Masculinity; Gender Division of Labour, Gender Roles and Responsibilities, Gender Stereotyping, Productive Work, Reproductive Work, Differential Access and Control Over Resources, Gender Stratification
- 1.2 Practical and Strategic Gender Interests; Equity and Equality; Gender Mainstreaming; Gender Sensitization
- 1.3 Patriarchal and Ideological Constructs That Govern Status of Women; Status of Women in India; Women in Difficult Circumstances, Problems Specific to Indian Women; Feminization of Poverty; Discrimination Against the Girl Child; Sex Ratio in India

Unit 2

Feminism and Empowerment of Women

(9hrs.)

- 2.1 Feminism: Concept, Meaning and Definition; Types of Feminism – Liberal, Social, Radical and Post-Modern Feminism.
- 2.2 Women's Movements: Pre and Post-Independence Perspectives in India, Landmarks in Women's Movement in India
- 2.3 Women Empowerment: Concept, Meaning and Definition, Types of Empowerment, Gender Development Indicators - GDI, GEM

Unit 3

Protective Measures, Policies and Programmes for Women in India (9 hrs.)

- 3.1 Constitutional and Legal Provisions for Women; Rights of Women with Reference to Entitlements, Political Participation, Education, Employment, Health, Inheritance, Marriage, Adoption, Divorce, Maintenance

- 3.2 Protective Laws to Mitigate Violence Against Women; Hindu Succession Act-1956 with Amendment in 2005; Prohibition of Child Marriage Act- 2006; Protection of Women From Domestic Violence Act – 2005; Sexual Harassment of Women at Workplace Act-2013
- 3.3 Special Initiatives for Women: National and State Commissions for Women; Ministry for Women and Child Development; the National Plan of Action for the Girl Child (1991-2000); National Policy for the Empowerment of Women-2001; Reservation for Women in Local Self Government; Five Year Plans, Gender Budgeting

Unit 4

Global Perspectives in Women’s Development (13 hrs.)

- 4.1 Convention on Elimination of All Forms of Discrimination against Women; and Girls (CEDAW) 1982 – Implementation in India; Global Impact of CEDAW.
- 4.2 Role of UN-WOMEN; UN Timeline in Women’s Progress; INGOs and NGOs in Women’s Development
- 4.3 Policy Approaches for Women; UN Agenda on Post Development and Sustainable Development Goals; Women as Agents of Peace and Security

Unit 5

Feminist Social Work and Frameworks for Practice (12 hrs.)

- 5.1 Feminist Social Work Practice: Meaning, Concept and Definition, Feminist Perspectives in Social Work Practice; Women's Agenda for Social Work; Principles in Women Centred Practice
- 5.2 Gender Analysis: Concept, Meaning and Goals; Need, Appropriate Usages; Gender Planning Framework, Empowerment Framework, Harvard Framework, Social Relations Framework
- 5.3 Education, Training and Agency; Capacity Building; Women’s Participation; Micro Finance and Self-Help Groups (SHGs), Other Support Groups for Women’s Wellbeing

BOOKS FOR STUDY

Bansal, D, K.; *Gender Justice*, New Delhi: Mahaveer and Sons, 2006.

Bhatia Anju, *Women’s Development and NGOs*, Jaipur: Rawat, 2000.

Dominelli, L., *Feminist Social Work Theory and Practice*, New York: Palgrave Macmillan, 2002.

Mikkelsen Britha, *Methods for Development Work and Research – A Guide for Practitioners*, New Delhi: Sage, 1995.

Moser O.N Caroline, *Gender Planning and Development, Theory, Practice and Training*, London: Routledge, 1993.

Visvanathan Nalini, *The Women, Gender and Development Reader*, Canada: Fernwood Pub, 2011.

BOOKS FOR REFERENCE

Banerjee Paula, *Women in Peace Politics*, New Delhi: Sage, 2008.

Datta, R and Kornberg, J., *Women in Developing Countries- Assessing Strategies For Empowerment*, New Delhi: Viva Books, 2005.

Evans Kathy M, *Introduction to Feminist Therapy*, New Delhi: Sage, London, 2011.

Heywood, L., *The Women's Movement Today*, Vol. 1 and 2, Jaipur: Rawat, 2007.

Kaila H.L, *Women, Work and Family*, New Delhi: Rawat, 2005.

Kaushik, Susheela; Ed, *Women's Oppression – Patterns and Perspectives*, New Delhi: Shakti Books, 1985.

Karl Marilee, *Women and Empowerment- Participation and Decision Making*, New Delhi: Zed Books Ltd, 1995.

Narasimhan Sakuntala, *Empowering Women*, New Delhi: Sage, 1999.

WEB RESOURCES

www.unwomen.org

www.un.org/womenwatch/daw/cedaw

www.ncw.nic.in

www.wcd.nic.in/wdcact.pdf

www.censusindia.gov.in

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)

Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Section – A 10 x 2 = 20 marks

Section – B 4 x 10 = 40 marks

Section – C 2 x 20 = 40 marks

Duration - 3 Hours

(All questions to be answered in 50 words each)

(4 out of 6 questions to be answered in 600 words each)

(2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015- 2016)

FUNDAMENTALS OF SOCIOLOGY

CODE: 15SW/PE/SY14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To gain an understanding of the basic sociological and economic concepts relevant to Social Work practice
- To develop analytical skills to social issues and concerns
- To sensitize students to the role played by the socio-economic political systems in reinforcing discrimination and marginalization of vulnerable groups
- To develop the capacity for application of these concepts to the Indian situation

Unit 1

Society

(10 hrs.)

- 1.1 Elements of Society: Internal Strength of Society – Unity in Diversity, Democracy, Groups, Types of Groups, Associations and Institutions, Socialization., Social Processes
- 1.2 Culture-Concept, Material and Non- Material Culture, Culture, Cultural Lag- Application to the Indian Setting
- 1.3 Social Structural: Approaches to the Study of Society: an Introduction to Structural/Functionalist Perspective, Conflict Perspective

Unit 2

Social Inequality and Exclusion

(12 hrs.)

- 2.1 Meaning of Social Inequality and its Forms: Social Differentiation, Social Stratification, Social Hierarchy and Social Exclusion and Inclusion
- 2.2 Institutional Basis of Social Inequality
- 2.3 Theoretical Perspective: Social Inequality or Social Stratification: Marxist, Weberian and Functionalist Perspectives

Unit 3

Social Stratification

(9 hrs.)

- 3.1 Understanding the Concept of Caste: Hierarchy and Differences in Caste Inequality and Exploitation, Dominant Caste
- 3.2 Historical Evolution of Caste System – Critical Analysis
- 3.3 Class-and Related Processes, Class as Power

Unit 4

Social Change (9 hrs.)

- 4.1 Concept, Theories, Agents of Social Change, Factors and Processes of Social Change
- 4.2 Urbanization, Industrialization, Modernisation, Westernisation, Sanskritisation and Secularisation - Analysis of Their Impact on Indian Society
- 4.3 Social Control and Agents of Social Control
- 4.4 Social Organisation and Disorganisation

Unit 5

Development (12 hrs.)

- 5.1 Characteristics of Indian Economy, India as the Developing Economy
- 5.2 Amartya Sen's Concepts of Development
- 5.3 Issues of Pre and Post Millennium Development Goals
- 5.4 Globalisation, Liberalisation, and Privatisation - its Impact on the Indian Society

BOOKS FOR STUDY

Chris Yuill. *Sociology for Social Work*. New Delhi: Sage, 2011

Lena, Dominelli. *Sociology for Social Work*. Palgrave, 1977

Channa, Subhatra. *Understanding Society, Culture and Change*, New Delhi: Blaze, 1993

Conklin, John E. *Sociology- An Introduction*. New York: Macmillan, 1984

Datt, Rudder, Sundaram. *Indian Economy*. 39th edition, Delhi: S.Chand, 1998.

BOOKS FOR REFERENCE

Ahuja, Ram. *Indian Social System*. New Delhi: Rawat, 1993.

Anderson, Parker. *Society- its Organization & Operation*. East West, 1966.

Anthuvan, Victor Louis M. *Global Debt Crisis-A Perspective for the Third Millennium*
New Delhi: CBCI and Labour Commission, 1999.

Basu, Amrita, Kohli, Atul. *Community Conflicts and the State in India*. New Delhi:
Oxford University Press, 1998.

Dalva A.K, *Environmental Impact of Large Reservoir Projects on Human Settlements*, New Delhi: Ashish, 1993.

Horton, Hunt. *Sociology*. 5th Edition, International student edition, Tokyo: McGraw Hill, 1980.

Karpagam M. *Environmental Economic- A Text book*, New Delhi: Sterling.

Mac Iver, Page C.H. *Society: An Introduction Analysis*. Madras: Macmillan, 1990.

JOURNAL

Social Change – Quarterly

WEB RESOURCES

<http://www.amazon.co.uk/Sociology-Social-Work-An-Introduction/dp/1848606516>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

FUNDAMENTALS OF PSYCHOLOGY

CODE: 15SW/PE/PY14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand concepts of Psychology relevant for Social Work practice
- To develop a holistic understanding of human growth and development in the life span using the systems approach
- To develop an understanding of personality theories in the psycho social context
- To sensitise students on the impact of life events on an individual during the lifespan and understand the concept of mental health

Unit 1

Introduction to Psychology (5 hrs.)

- 1.1 Definition of Psychology
- 1.2 Fields of Psychology- General, Developmental, Abnormal, Social, Counselling, Community Psychology
- 1.3 Relevance of Psychology for Social Work Practice

Unit 2

Human Growth and Development (15 hrs.)

- 2.1 Life Span Perspective (Conception to Old Age) Using the Systems Approach: – Needs, Tasks, Challenges, and Hazards in the Life Span
- 2.2 Role of Various Systems – Family, Significant Others, Neighbours, Peers, School, Community, Society in Influencing Behaviour
- 2.3 Biological, Psychological and Environmental Determinism

Unit 3

Personality (12 hrs.)

- 3.1 Definition. Personality Traits and Dimensions to Describe Personality
- 3.2 Theories Related to Structure and Development of Personality. Psychoanalytic (Freud), Cognitive Development (Piaget), Psychosocial Development (Erickson), Moral Development (Kohlberg), Social Learning (Bandura), Humanistic (Rogers)

- Unit 4** (10 hrs.)
Psychological Processes for Understanding Behaviour
- 4.1 Sensation, Perception and Learning (Classic and Operant Learning Theories)
 - 4.2 Motivation- Motivation Process, Human Needs, Maslow's theory- Hierarchy of Needs
 - 4.3 Emotions- Common Emotions
 - 4.4 Attitude- Attitude Formation, Attitude Change, Prejudice and Discrimination
 - 4.5 Intelligence, Commonly Used Tests for Measurement of Intelligence
(Overview) Mental Retardation- Definition, Causes, Rehabilitation, Prevention

- Unit 5** (10 hrs.)
Life Events During the Lifespan and their Impact on Behaviour
- 5.1 Life Events, Stress, Stressors, Conflicts, Frustrations and Coping
 - 5.2 Concept of Mental Health, Common Mental Disorders (Overview)

BOOKS FOR STUDY

Bee, Helen. Mitchell, Sandra. *The Developing Person-A Life Span Approach*. Ed2, New York Harper and Row, 1984.

Engler, Barbara, *Personality Theories-An Introduction*. Ed3, Boston: Brooks Cole Learning, 1991.

Mangal, S K., *General Psychology*. New Delhi: Sterling, 2010

Spect, Riva. Craig, Grace J., *Human Development-A Social Work Perspective*. New Jersey: Prentice Hall, 1982

Vankhede, A N., *Handbook of Psychology*. New Delhi: Wisdom Press, 2012

BOOKS FOR REFERENCE

Coleman, James, *Abnormal Psychology and Modern Life*. Ed 5, Mumbai: D.B Taraporewala & Sons, 1976.

Compton, Beulah. Galaway, Cournoyer, *Social Work Processes*. Ed 7, USA: Brooks Cole Learning, 2005

Corner Ronald, J ., *Abnormal Psychology*. New Delhi: Wisdom Press, 2012

Hurlock, Elizabeth, *Child Development*. Ed 6, USA: Tate McGraw Hill, 1989.

Hurlock, Elizabeth, *Developmental Psychology-A Life Span Approach*. Ed 5, New Delhi: Tata McGraw Hill, 1995.

Morgan, Clifford T., King, A., Richard Weisz., John .R. and Schople, *Introduction to Psychology*.New York: Tata McGraw Hill, 1986

JOURNALS

Journal of Applied Psychology

Journal of Personality and Social Psychology

Child and Adolescent Social Work Journal

Indian Journal of Social Work

WEB RESOURCES

Josh Gerow(2012). Basic Psychology. 3 ed. Boston: Pearson Learning Solutions.
http://opus.ipfw.edu/psych_facpubs/215

http://dbjz9dclly1fbw.cloudfront.net/1z9wr8_study-guide-for-morgan-and-king-introduction-to-psychology-fifth-edition.pdf

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2=20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015 -2016)

CHILD RIGHTS AND SOCIAL WORK

CODE: 15SW/PE/CR34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To create awareness on the situation of children in India
- To understand the legal provisions and rights of children
- To acquire knowledge of the services and programmes for the rights of children
- To acquire skills and methods to work with children

Unit 1

Understanding Children in India

(10 hrs.)

- 1.1 Demographic Profile of Children in India
- 1.2 Situational Analysis of the Rights of Children in India – Survival, Health, Nutrition, Education and with Specific Reference to the Girl Child
- 1.3 Constitutional Safeguards Assuring the Rights of Children in India
- 1.4 UNCRC, Millennium Development Goals, Post 2015 Development Agenda
- 1.5 Changing Context of Work with Children – Charity to Rights Approach

Unit 2

Overview of Problems of Children

(10 hrs.)

- 2.1 Children in Special Circumstances
 - 2.1.1 Children in Conflict with Law
 - 2.1.2 Children in Need of Care and Protection: Street Children – Definition Causes, Effects, Services and Prevention
 - 2.1.3 Child Labour, Child Beggary, Child Abuse, Child Trafficking
 - 2.1.4 Child Prostitution – Definition, Nature/Characteristics, Causes, Effects, Services, Prevention
- 2.2 Children in Need of Special Care
 - 2.2.1 Differently Abled (Physically and Mentally Challenged), Emotionally Disturbed, Learning Disabled
 - 2.2.2 Children Living with HIV/AIDS, Children of Prisoners
 - 2.2.3 Problems of Children in Disaster Situations and Conflicts

Unit 3**Legislations and Services for Children (12 hrs.)**

- 3.1 Pre- conception and Pre-natal Diagnostic Techniques Act, 1994
- 3.2 Persons with Disabilities (Equal Protection and Participation) Act, 2000
- 3.3 Child Labour (Prohibition and Regulation) Act, 1986
- 3.4 The Juvenile Justice (Care and Protection of Children) Act, 2000
- 3.5 The Commissions for Protection of Child Rights Act, 2005
- 3.6 The Child Marriage Restraint Act, 2006
- 3.7 The Right of Children to Free and Compulsory Education, Act, 2009
- 3.8 The Protection of Children from Sexual Offences Act, 2012 (POCSO)

Unit 4**Child Protection Services (10 hrs.)**

- 4.1 Mechanisms
 - 4.1.1 National Commission for Protection of Child Rights/ State Commission for Protection of Child Rights Act
 - 4.1.2 District Child Protection Unit, Child Welfare Committee, Juvenile Justice Board
- 4.2 Structure and Function of Government Programmes
 - 4.2.1 Programmes: Child Survival, ICDS Programme, School Health Programme, Health and Nutrition Programmes, Sarva Shiksha Abhiyan, Integrated Child Protection Scheme
 - 4.2.2 Beti Bachao Beti Padhao, Dr. Muthulakshmi Reddy Maternity Benefit Scheme
 - 4.2.3 National Policy for Children 2013, Optional Protocols
- 4.3 Initiatives by GOs, NGOs and INGOs in Promotion of Child Rights
 - 4.3.1 Ministry of Women and Child Development, National Institute of Public Cooperation for Child Development (NIPCCD)
 - 4.3.2 UNICEF, CRY, Action Aid, Christian Children's Fund of Canada Childline 1098, ICCW, WHO, Plan International, BBA (Bachpan Bachao Andolan)

Unit 5**Social Work with Children (10 hrs.)**

- 5.1 Approaches to Working with Children – Institutional Settings, SOS Children's Villages
- 5.2 Non-Institutional Settings: Adoption –In Country and Inter-Country Adoption, Sponsorship and Foster Care
- 5.3 Multi-Disciplinary Approach – Sustainable/Developmental Approach
- 5.4 Participatory Approach, Preventive Model, Rehabilitative Models, Convergence Approach

- 5.5 Rights Based Approach in Working with Children, Networking and Advocacy for Child Rights
- 5.6 Role of Social Work with Children in Special Circumstances, Sexually Exploited and Oppressed Children. Children in Need of Special Care and in Disasters and Conflict Situations
- 5.7 Research, Training and Documentation on Child Issues and Rights, Child Budgeting

BOOKS FOR STUDY

Bhatia, Vinita. *Social Laws & Child Rights*. New Delhi: Alfa, 2011.

Devi, Laxmi. *Child and Family Welfare*. New Delhi: Anmol, 1998.

Fernandez. B., Alex. *Social Work for Women and Children*. New Delhi: Pacific Books International, 2014.

Kennison, Peter. *Children as Victims*. Learning Matters, 2008.

BOOKS FOR REFERENCE

Bajpai, Asha. *Child Rights in India: Law, Policy, and Practice*. India: Oxford, 2006.

Sarada, D., Rajini. N. *Child Rights and Young Lives: Theoretical Issues & Empirical Studies*. India: Discovery, 2009.

Tandon, R.K. & Sudarshan, K.N. *Directory & Handbook on Children*. New Delhi: Ashish, 1998.

Theis, Joachim. *Promoting Rights – Based Approaches, Experiences and Ideas from Asia and the Pacific*. Sweden: Save The Children, 2004.

Wal, S. *International Encyclopaedia of Child Development Priorities for 21 Century*. Vol., I – V. New Delhi: Sarup and Sons, 1999.

JOURNALS

The International Journal of Human Rights, Vol 19, 2015

Early Child Development and Care, Vol 185, 2015

Situation of Children in India – A Profile (May 2011) UNICEF, New Delhi

WEB RESOURCES

www.wcd.nic.in

www.unicef.org

www.tn.gov.in [www.unicef.org/sitan/files/SitAn India May 2011.pdf](http://www.unicef.org/sitan/files/SitAn_India_May_2011.pdf)

www.ncpcr.gov.in

www.childlineindia.org.in/rights.htm

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks

(All questions to be answered in 50 words each)

Section – B 2 x 10 = 20 marks

(2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks

(1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks

(All questions to be answered in 50 words each)

Section – B 4 x 10 = 40 marks

(4 out of 6 questions to be answered in 600 words each)

Section – C 2 x 20 = 40 marks

(2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

MEDICAL SOCIAL WORK

CODE: 15SW/PE/MS34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To trace the history and development of Medical Social Work and understand its current status
- To develop a holistic and integrated approach to Social Work practice in the field of health
- To have an understanding of common diseases and associated psychosocial and economic problems
- To apply knowledge of Social Work in the field of health

Unit 1

Concepts of Health (10 hrs.)

- 1.1 Concepts - Health, Hygiene, Disease, Illness and Disability
Health Indicators, Determinants of Health
- 1.2 Medicine through the Ages; Changing Concept of Health; Concept of Patient as a Whole
- 1.3 Historical Development of Medical Social Work in the West and in India

Unit 2

Changing Phase of Health Care (10 hrs.)

- 2.1 Levels of Health Care, Models of Health Care- Medical, Health Prevention and Promotion Model, Integrative Model and Developmental Model
- 2.2 Holistic Approach to Health; Indigenous Systems of Health – Ayurveda, Siddha, Unani, Homeopathy. Alternative Systems of Health – Yoga, Naturopathy
- 2.3 Concept of Stem Cell Therapy

Unit 3

Organisation and Administration of Medical Social Work in Hospitals (10 hrs.)

- 3.1 Multi Disciplinary Approach and Team Work
- 3.2 Medical Ethics

- 3.3 Patient's Rights in Health Care – PNDT Act, MTP Act, COPRA, Organ Transplantation Act, Persons with Disability Act (1995), Euthanasia, ESI Scheme, Health Insurance
- 3.4 Public Relations in Hospitals

Unit 4

Clinical Manifestations and Psycho- Socio and Economic Problems (12hrs.)

- 4.1 Major Communicable Diseases – Tuberculosis, STD/ HIV/AIDS, Malaria, Dengue, Cholera, Typhoid, Leprosy, Leptospirosis, Influenza
- 4.2 Major Non-Communicable Diseases – Diabetes, Hypertension, Cardiac Disorders, Neurological Disorders, Asthma, Cancer
- 4.3 Problems of Individuals and Family during Hospitalisation
- 4.4 Problems of Patients Undergoing Surgery

Unit 5

Medical Social Work Practice in Different Settings (10hrs.)

- 5.1 Hospitals, Out-Patient Departments, Emergency / Crisis Intervention and Care, Special Clinics. Convalescent Care, Acute Health Care Settings, Restorative Health Care Settings, Long Term Health Care, Palliative Care
- 5.2 Application of Social Work Methods in the Field of Health
- 5.3 Discharge Planning
- 5.4 Documentation and Record Keeping in Health Care
- 5.5 Role, Functions and Skills of Medical Social Workers. Challenges of Medical Social Workers in the field

BOOKS FOR STUDY

- Bajpai, P.K. (Ed). *Social Work Perspectives in Health*. New Delhi: Rawat, 1997
- Bhattacharya S. *Social Work: Psychosocial Health Aspects*. New Delhi: Deep & Deep, 2008.
- Pathak, S.H. *Medical Social Work in India*. New Delhi: DSSW, 1995.
- Singh G P & Sharma S . *Multiple Choices In Preventive & Social Medicine*. New Delhi: Elsevier, 2008.

BOOKS FOR REFERENCE

- Anderson R & Bury M. (Eds). *Living with Chronic Illness- The Experience of Patients and Their Families*. London: Un-win Hyman, 1988.
- Bajpai, P.K. (Ed). *Social Work Perspectives in Health*. New Delhi: Rawat, 1997.
- Dhaar G.M. I Robboni. *Foundation of Community Medicine*. New Delhi: Elsevier, 2006.

Field, M. *Patients Are People- A Medico- Social Approach to Prolonged Illness*. New York: Columbia University Press, 1963.

Goldstein, D. *Expanding Horizons in Medical Social Work*. Chicago: University of Chicago, 1955.

Pokarno, K.L. *Social Beliefs, Cultural Practices in Health and Disease*. New Delhi: Rawat, 1995.

Reisch M. & Gambill E. *Social Work in the 21st Century*. New Delhi: Pine Forge Press, 1997.

JOURNALS

The British Medical Journal

WEB RESOURCES

www.planningcommission.nic.in/reports/genrep/.../26_bg2020.doc

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
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End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

DEVELOPMENT PLANNING AND ADMINISTRATION

CODE: 15SW/PE/DP34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To enable students gain an understanding of the administrative machinery involved in development
- To provide knowledge on various methods, strategies, development policies and programmes
- To equip the students with the skills for application in the field

Unit 1

Planning and Development

(8 hrs.)

- 1.1 Planning: Concept, Types of Planning
- 1.2 Planning Process and Importance of Planning for Development
- 1.3 Development: Concept, Indicators, Human Development Index, Physical Quality of Life Index, Human Poverty Index
- 1.4 Development Paradigm: from Conventional to People Centered Development
- 1.5 Development Strategies with reference to Balanced and Unbalanced Approach to Development
- 1.6 Models of Development with specific reference to Nehru, LPG and PURA Model
- 1.7 Concept: Social Development and Sustainable Development
- 1.8 Millennium Development Goals and Post – 2015 Millennium Agenda

Unit 2

Participatory Planning

(10 hrs.)

- 2.1 Peoples Participation, Concept of Participation
- 2.2 Factors Promoting and Hindering People's Participation

Unit 3

Overview of Rural, Urban and Tribal Policy

(10 hrs.)

- 3.1 Related Policies of Rural, Tribal, Urban and Development Policies
- 3.2 Implications of 73rd and 74th Amendment Act
- 3.3 Development Planning in India: Local Self Governance; Structures and Levels of Administration and Planning

- 3.4 Changing Trends in Social Work Practice. Application of Social Work Methods in Development Practice

Unit 4

Government Programmes for Development (12 hrs.)

- 4.1 Rural Community Development Programmes: NABARD, MGNREGA, NRLM, RKVY, Vazhundhu Kaatuvom, NRHM, IAY
4.2 Urban Community Development Programmes: RSBY, RAY, JNNURM, UIDSSMT, AUWSP
4.3 Tribal Community Development Programmes: NSTFDC, STFDCs, VKJ, ITDP, TRIFED

Unit 5

Tools and Techniques for Development Practice (12 hrs.)

- 5.1 Participatory Monitoring and Evaluation–Concept, Purpose
5.2 Process and Organization of Evaluations, Key Principles of Monitoring and Evaluation
5.3 Tool One-Logical Framework Analysis: Social Analysis and Assessments, Stakeholder Analysis, Project Matrix
5.4 Tool Two -Appreciative Inquiry: Definitions, Need, Importance, Processes and Its Appropriate Usages
5.5 Tool Three- Social Audit; Significance of People’s Participation in Development
5.6 Evaluation Report and Using Evaluation for Further Development

BOOKS FOR STUDY

- Agarwal, A.N. *India Economy: Nature, Problem & Progress*. New Delhi: Vikas, 1998.
Dubhashi ,P.R. *Rural Development-Administration in India*. Bombay: Popular Press, 1994.
Fernandes, Walter. *Development, Displacement and Rehabilitation*. New Delhi: ISI, 1989.
Saxena, D.P. *Rural Urban Migration in India*. Bombay: Popular Prakashan, 1977.

BOOKS FOR REFERENCE

- Bhat, Anil. *Development & Social Justice: Micro Action by Weaker Sections*, New Delhi: Sage, 2001.
Bosco, B.C. *Introduction to Disaster Management*. New Delhi: Rajat, 2007.
Datt & Sundaram K.P.M. 54th Ed. *Indian Economy*. New Delhi: S. Chand, 2007.
Desai ,A.R. *Rural Sociology*. Bombay: Popular, 1978.

- Desai, Vasanth. *Rural Development, Vol. 1 & 2*. New Delhi: Himalaya, 1998.
- Dhingra C.Ishwari. *The Indian Economy*. New Delhi: S. Chand ,1988.
- Fritz C.E, “Disaster”; Sills, D. (Ed) International Encyclopaedia of Social Science, Vol. 4, U.S.A.: The MacMillan Company and the Free Press,,202-208.
- Gangrade, K.D. & Dhadde. S.*Challenge and Response*. Delhi: Rachna, 1973.
- Goel, S.L. *Disaster Management*. New Delhi: Deep and Deep, 2001.
- Indian Journal of Social Work Vol. 12, 1999.*
- Jain L.C. *Grass without Roots: Rural Development under Government Auspices*. New Delhi: Rawat, 1985.
- Jain S.C. *Community Development & Panchayati Raj in India*. Chennai: Allied, 1985.
- Jain S.C. *Rural Development Institutions & Strategies*. Jaipur: Rawat, 1985.
- Joint Assistant Centre *Natural Disaster*; New Delhi: Adhyatma Sadhana Kendra, 1980.
- Kapila Uma. *India’s Economic Development since 1947*. New Delhi: Academic Foundation, 2007.
- Puri V.K. & Misra S.K. *Indian Economy Himalayan*. New Delhi: Himalaya, 1988.
- Schenk-Sandbergen Loes. *Women and Seasonal Labour Migration*. New Delhi: Sage,1995.
- Sharma, Kampa Prasad. *Participation Planning at the Grass Roots*. New Delhi: Sterling, 1993.
- Sudarsen V. *The Uprooted Displacement Resettlement Development*. New Delhi: Gian,1991.

JOURNALS

[SAGE: Journal of Developing Societies:](#)

Journal of South Asian Development

WEB RESOURCES

<http://planningcommission.nic.in/>

<http://www.historydiscussion.net>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

- Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
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End Semester Examination

Total Marks - 100

Duration - 3 Hours

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

MASTER OF SOCIAL WORK

SYLLABUS

(Effective from the academic year 2015-2016)

FAMILY SOCIAL WORK

CODE: 15SW/PE/FS34

CREDITS : 4

LTP : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To develop an understanding on marriage and family as social institutions
- To comprehend emerging forms of marriage and families in society
- To gain knowledge and skills in applying theoretical frameworks for working with families
- To recognise the growing need to work with senior citizens in society
- To gain an understanding of policies and programmes for family development

Unit 1

Families in Society

(12 hrs.)

- 1.1 Family as a Social Institution, Concept of Family, Characteristics, Types, Functions, Family Ecology, Family Members and Households; Norms, Family Dynamics; Interaction Patterns: Myths about Families; Patriarchy; Changing Features of the Modern Family
- 1.2 Understanding the Family-Global and Indian Perspectives; Analysis of Structural and Functional Changes and Challenges Affecting the Family
- 1.3 Emerging Family Patterns - Single Parent Families, Female Headed Households, Dual Earner Families, Reconstituted Families and Parenthood through Surrogacy

Unit 2

Marriage and Family Life

(13 hrs.)

- 2.1 Concept and Definition of Marriage, Forms of Marriages, Functions, Changing Situations in Marriages and Marital Relationships, Live-In Relationships; Gay, Lesbian and Bisexual, Transgender and Queer Relationships
- 2.2 Challenges in Marriage and Family Life; Marital Discord, Impact of Migration, Industrialisation, Urbanisation on Family Life – Changing Functions, Values, and Relationships; Equity and Equality in Family Functions and Relationships, Dowry as a Social Issue, Separation and Divorce
- 2.3 Family Life Education; Positive Parenting, Family Communication, Sex and Sexuality Education, Reproductive Health and Family Planning

Unit 3

Theoretical Frameworks and Laws for Working with Families (9 hrs.)

- 3.1 Life Span Approach: Characteristics, Goals, Needs, Tasks and Problems of each Stage in the Family Lifecycle, Family Therapy, Rehabilitation, Crisis Intervention; Systems/ Ecological Perspectives; Strengths Based, Solution Focused, Structural, Strategic, Evidence Based, Family Resilience and Communication Theory
- 3.2 Assessment of Family Needs: Steps in Problem Assessment and Goal Setting for Intervention; Tools for Assessment
- 3.3 Legislations and Laws on Family and Marriage, Family Courts Act 1984; Mediation and Conciliation, Lok Adalats

Unit 4

Social Work and Senior Care (9 hrs.)

- 4.1 Meaning and Definition; Demography of Aging; Longevity of Life, Ageing Differentials; Challenges of Senior Citizens in Family and Society, Issues of Neglect, Abandonment, Violence and Abuse, Financial Exploitation
- 4.2 Special Needs of Senior Citizens; Intergenerational Relationships, Life Transition Needs – Living Arrangements, Employment, Social Relations, Retirement, Monetary Needs, Social Security, Recreation and Leisure Time
- 4.3 Disorders, Diseases and Disabilities Associated with Senior Citizens; Coping with Loss of Partner and other Crisis Events, Grief Counselling and Preparation for Death

Unit 5

(9 hrs.)

Role of Government and NGOs in Family Development and Senior Care

- 5.1 Ministry of Health and Family Welfare: Family Welfare Programmes: RCH Programme under NRHM, All India Post-Partum Programme, Janani Suraksha Yojana (JSY), Socio Economic and Welfare Programmes of the Central and State Social Welfare Board
- 5.2 International and National Policies on Aging: Madrid International Plan of Action on Aging-2002; National Policy on Older Persons-1999, Senior Citizen Act,2007; National Council for Senior Citizens; Concessions, Facilities and Programmes for Senior Citizens
- 5.3 Role and Contributions of NGOs, Self Help and Support Groups, Family Counselling Centres, Changing Concept of Institutionalisation; Assisted Living Centres and Communities for Senior Care

BOOKS FOR STUDY

Carter, B. McGoldricke. M., *The Changing Family Life Cycle-A Framework for Family Therapy* London: Allyn & Bacon, 1989.

Duvall, Evelyn M. *Family Development*. ed 3, New York: J.B. Lipincott Company, 1989.

Hurlock, E. *Developmental Psychology - A Life Span Approach*. ed 5. New Delhi: Tata McGraw Hill, 1995.

Saleebey, Dennis, *The Strengths Perspective in Social Work Practice*. ed 4, New York: Pearson Education, 2006.

Tata Institute of Social Sciences. *Family Intervention - Case Studies*, Mumbai: TISS, 1994.

BOOKS FOR REFERENCE

Ambrosino, R. Hefferman, J. and Shuttlesworth, G. *Social Work and Social Welfare- An Introduction*, ed. 5, New York: Brooks /Cole Thomson Learning, 2005.

Bhatlavande, P. Gangakhedkar, R. *On the Horizon of Adulthood*, India: UNICEF, 2001.

Bhaimali, Anil, *Ageing Population and Social Security System*, New Delhi: Serials, 2011.

Cocker, Christine. *Advanced Social Work with Children and Families*, New Delhi: Learning Matters, 2011.

Compton, Beulah R. Galaway, B. Cournoyer, Barry R. *Social Work Processes*, ed 7, New York: Brooks / Cole Thompson Learning, 2005.

Desai, M. (ed), *Family & Interventions- Course Compendium*, Mumbai: TISS,1994.

Goode, William J. *The Family*, New Delhi: Prentice Hall,1965.

Indira T Rani, *Adjustment of Senior Citizens*, New Delhi: Discovery, 2010.

Margaret, A., Schvaneveldt. M.J. *Handbook of Family Life Education- The Practice of Family Life Education*, New Delhi: Sage,1993.

Mckie Linda, *Understanding Families*, London: Sage, 2012.

Pachauri, S., *A Reproductive Health Package for India*, New Delhi: Population Council, 1995.

Rath Sangeeta, *Work and Family*, Delhi: Manglam, 2009.

Suneetha K, *Social Support for the Elderly*, New Delhi: Sonali, 2010.

Timonen Virpi, *Ageing Societies*, New York: Tata Mc Graw Hill, 2008.

WEB RESOURCES

www.nw.nic.in

www.socialjustice.nic.in/

www.socialjustice.nic.in/ddrstn.php

www.familyserfac.org
www.tnhealth.org
www.tn.gov.in/adoption/

www.census.tn.nic.in
www.censusindia.gov.in/

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

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End Semester Examination

Total Marks - 100

Duration - 3 Hours

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015-2016)

MENTAL HEALTH AND SOCIAL WORK

CODE: 15SW/PE/MH34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand Psychiatric Social Work in the context of changing trends in health care
- To understand the concept of mental health, acquire knowledge of mental disorders and their management
- To develop skills in identifying and managing mental disorders in health settings and the community

Unit 1

Concept of Mental Health and Mental Illness (8 hrs.)

- 1.1 Changing Perspectives from Illness to Well-Being
- 1.2 Changing Trends in Mental Health Care
- 1.3 Indian View of Mental Health and Well Being
- 1.4 Psychiatric Social Work: Definition, History and Scope
- 1.5 Changing Perspective of Psychiatric Social Work

Unit 2

Common Mental Disorders and their Treatment Modalities (12 hrs.)

- 2.1 Classification of Mental Disorders – ICD 10, ICF, DSM (Overview)
- 2.2 Clinical Signs and Symptoms of Mental Disorders
- 2.3 Organic Mental Disorders
- 2.4 Mental and Behavioural Disorders due to Psychoactive Substance Use
- 2.5 Schizophrenia
- 2.6 Delusional Disorders
- 2.7 Mood Disorders

Unit 3

Neurotic, Stress-related and Somatoform Disorders (12 hrs.)

- 3.1 Behavioural Syndromes Associated with Physiological Disturbances,
- 3.2 Disorder of Psychological Development, Behaviour and Emotional Disorders -Onset in Childhood and Adolescence.
- 3.3. Disorders of Adults- Personality Disorders and Behaviour
- 3.4 Sexual Disorders

- 3.5 Mental Retardation
- 3.6 Suicide

Unit 4

Psychiatric Assessment

(10 hrs.)

- 4.1 History Taking and Mental Status Examination, Psychosocial and Multidimensional Assessment of Persons with Mental Disorders in Psychiatry from a Clinical and Strengths Based Perspective
- 4.2 Assessment of Family as a System
- 4.3 Use of Mental Health Scales in Assessment and Intervention
- 4.4 Legislations with Regard to the Mentally Ill – Mental Health Act 1987, Narcotics Drugs and Psychotropic Substances Act 1987
- 4.5 Rights of the Mentally Ill and Advocacy

Unit 5

Practice of Psychiatric Social Work in the Mental Health Field (10 hrs.)

- 5.1 Psychiatric Settings: Child and Adolescent Mental Health Act, Gender and Mental Health, De-Addiction, Industry, Emergency Settings
- 5.2 Non-Psychiatric Settings: Non-Institutional Models of Mental Health Care
- 5.3 Role of National and International Organisations in Mental Health

BOOKS FOR STUDY

Ahuja, Niraj. A. *Short Textbook of Psychiatry*. 5th Edition. New Delhi: Jaypee Brothers, 2002.

Mane P. & Gandevia K. (Eds.) *Mental Health in India Issues and Concerns*, Mumbai: Tata Institute of Social Sciences, 1993.

Pritchard, Colin. *Mental Health Social Work*. London: Routledge, 2006.

Sekar, K. Parthasarathy, R. Muralidhar, D. Chandrasekhar Rao. *Handbook of Psychiatric Social Work*. Bangalore: NIMHANS, 2007.

BOOKS FOR REFERENCE

Bhattacharya, Sanjay. *Social Work Interventions and Management*, New Delhi: Deep & Deep, 2008.

Francis, Abraham P. (Ed.) *Social Work in Mental Health – Areas of Practice, Challenges & Way Forward*. New Delhi: Sage, 2014.

Francis, Abraham P. (Ed.) *Social Work in Mental Health – Contexts & Theories for Practice*. New Delhi: Sage, 2014.

Herman, Helen. Saxena, Shekhar. Moodie, Rob. (Eds.) *Promoting Mental Health – Concepts – Emerging Evidence – Practice*, Geneva:WHO, 2005.

Hicks, James Whitney. *50 Signs of Mental Illness – A Guide to Understanding Mental Health*. New Delhi: Word Books, 2008.

Kaplan, H.I., Freedman A.M., & Sadock B.J. *Comprehensive Text Book of Psychiatry*, (Third Ed.) Vols. 1, 2&3 London: Williams & Wilkins, 1980.

Roberts, Albert R. & Greene, Gilbert J. *Social Workers' Desk Reference*. New York: Oxford University, 2001.

Srinivasa Murthy & Burns B. (Eds). *Community Mental Health – Proceedings of the Indo-US Symposium*. Bangalore: NIMHANS, 1992.

Verma, Ratna. *Psychiatric Social Work in India*. New Delhi: Sage, 1991.

World Health Organisation. *The International Classification of Functioning, Health*. Geneva: 2002.

World Health Organisation. *The ICD 10 Classification of Mental and Behavioural Disorders. Clinical Description and Diagnostic Guidelines*. Geneva: Oxford University Press, 1992.

JOURNALS

Health & Social Work

[International Journal of Mental Health Systems](#)

Indian Journal of Social Work

Indian Journal of Psychiatry

[BioMed Central Journals](#)

WEB RESOURCES

nursingplanet.com/pn

<http://www.casw-acts.ca/en/role-social-work-mental-health>

<http://www.communitycare.co.uk/mental-health/>

http://www.who.int/features/factfiles/mental_health/mental_health_facts/en

http://www.medicinenet.com/mental_health_psychology/article.htm

PATTERN OF EVALUATION

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Total Marks - 100

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015- 2016)

SOCIAL ENTREPRENEURSHIP

CODE: 15SW/PE/SE34

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquire knowledge and understanding of the basic concept of Social Entrepreneurship
- To promote entrepreneurial skills to develop innovative responses to social problems
- To recognise opportunities, explore innovative approaches and mobilise resources to manage risks and build viable social enterprises
- To apply Social Entrepreneurship to both profit and non-profit firms

Unit 1

Introduction to Social Enterprises (8 hrs.)

- 1.1 History, Concept of Entrepreneurship and Social Entrepreneurship and Enterprises
- 1.2 Need and Importance, Relevance of Social Enterprise
- 1.3 Issues and Concerns; Voluntarism vs. Privatisation, Partnership vs. Individualism, Internal sourcing vs. Outsourcing, Centralisation vs. Decentralisation, Conflict vs. Consensus, Intimidation vs. Inquisitiveness

Unit 2

Entrepreneurship Skills (10 hrs.)

- 2.1 Entrepreneurial Traits: Assessment of Entrepreneurial Traits
- 2.2 Entrepreneurial Decision Making Process
- 2.3 Entrepreneurial Motivation: Achievement and Motivation Process (AMT)
Development of Entrepreneurial Competencies

Unit 3

Models of Social Enterprises (12 hrs.)

- 3.1 Entrepreneur Support Model, Market Intermediary Model, Employment Model, Market Linkage Model
- 3.2 Fee-for-Service Model, Low-Income Client as Market, Service Subsidization Model
- 3.3 Cooperative Model, Organisational Support Model, Empowerment Model, Networking Model

Unit 4

Assessment and Market Survey

(15 hrs.)

- 4.1 Needs Assessment, Market Study and Analysis, Idea Generation and Market Survey -Demand
- 4.2 Marketing Management an Overview: 4 “P” s of Marketing – People, Product, Pricing, Distribution and Promotion
- 4.3 Market Segmentation/Opportunity Identification

Unit 5

Preparation of Business Plan

(7 hrs.)

- 5.1 Guidelines for Preparation of Business Plan
- 5.2 Model Business Plan Presentation
- 5.3 Support Institution to Help in the Preparation of Business Plan
- 5.4 Financial Management and Book Keeping

BOOKS FOR STUDY

Batra,G.S. *Development of Entrepreneurship*. New Delhi: Deep & Deep, 2002 .

Desai,Vasant. *Entrepreneurial Development*. Vol.1 Entrepreneur, Entrepreneurship and Development, Principles,Program. New Delhi: Himalaya, 1991.

Kanungo, Rabindra. *Entrepreneurship and Innovation. Models for Development*, New Delhi: Kanishka Prakashan, 1998 .

Shanta, Kohli Chandra. *Development of Women Entrepreneurship in India. A Study of Public and Programmes*, New Delhi: Mittal, 1991.

BOOKS FOR REFERENCE

Yadav C.P. *Encyclopaedia of Entrepreneurship Development. Vol.1 Entrepreneurship : Theory and Practice*, New Delhi: Anmol, 2000.

Yadav C.P. *Encyclopaedia of Entrepreneurship Development. Vol.2 Entrepreneurship : Theory and Practice*, New Delhi: Anmol, New Delhi, 2000.

Yadav C.P. *Encyclopaedia of Entrepreneurship Development. Vol.3 Entrepreneurship : Theory and Practice*, New Delhi: Anmol, 2000.

Yadav C.P *Encyclopaedia of Entrepreneurship Development. Vol.4 Entrepreneurship : Theory and Practice*, New Delhi: Anmol, 2000.

JOURNAL

Monthly Journal Entrepreneurship 12 issues per year

WEB RESOURCES

<http://www.pbs.org/opb/thenewheroes/whatis/>

https://www.ashoka.org/social_entrepreneur

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

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Total Marks - 100

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STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

YOUTH DEVELOPMENT

CODE: 15SW/PE/YD44

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To acquire knowledge of the concept of Youth Development, the need and importance of working with youth
- To develop the ability to understand the issues confronting youth in the changing socio-economic, political and cultural scenario
- To gain an understanding of different governmental/nongovernmental programmes working for the development of youth
- To develop an understanding of the different methods of working with youth groups

Unit 1

Introduction

(8 hrs.)

- 1.1 Youth Development: Concept, Definition, Aims and Objectives
- 1.2 Demographic Profile of the Youth in Rural, Tribal and Urban India
- 1.3 Status of Youth – Global Situation. National Youth Policy – 2014

Unit 2

Needs of Youth

(13 hrs.)

- 2.1 Physical, Intellectual, Emotional, Social and Religious Needs of Youth
 - Socialization of Youth
 - 2.1.1 Influence of Family, Peer, Neighbourhood, Reference Groups, Religion and Media
 - 2.2.2 Impact of Westernisation, Modernisation, Urbanisation and Globalisation
- Socio-Economic, Political and Cultural Challenges faced by Youth, Youth and Poverty

Unit 3

Specific Problems of Youth

(9 hrs.)

- 3.1 Behavioural Problems
 - 3.1.1 Substance Abuse, Sexually Transmitted Diseases, HIV/AIDS, Sexual Problems, Eating Disorders and Obesity.
- 3.2 Emotional Problems

- 3.2.1 Identity Crisis, Alienation, Low Self-esteem and Suicide, Career Conflict, Conflicts in Selecting a Partner

Unit 4

Youth and Social Development

(18 hrs.)

- 4.1 Involvement of Youth in Social Development
- 4.1.1 Initiating Youth in Politics, Youth in Conflict Situations, Youth and Terrorism, Youth and Millennium Development Goals Post 2015 Development Agenda
 - 4.1.2 Social Entrepreneurship - Meaning, Definition, Competencies and Characteristics of an Entrepreneur, Youth for Leadership
- 4.2 Welfare Programmes for Rural/Urban Youth
- 4.2.1 National Programmes - NCC, NSS, Scouts and Guides, Sports, Youth Festivals, Career Counselling.
- 4.3 Youth Organisations and Movements in India
- 4.3.1 Rajiv Gandhi National Institute for Youth Development
 - 4.3.2 Nehru Yuva Kendra Sangathan, Vishwa Yuva Kendra
 - 4.3.3 Students Federation of India, National Students Union of India, Democratic Youth Federation of India, All India Catholic Universities Federation

Unit 5

Training and Application of Social Work Methods in Working with Youth and Youth Groups

(4 hrs.)

- 5.1 Training, Capacity Building, Research, Networking, Volunteering, Peer Counselling and Advocacy
- 5.2 Designing and Implementing Community Based Youth Development Programmes/Projects

BOOKS FOR STUDY

Ahuja, Ram. *Indian Social Problems*. New Delhi: Rawat , 1993.

Dugan, Laird. *Approaches to Training and Development*. Jaipur.: Rawat , 2007

Kuriakose P.T Vishwa. *Youth Work in India: Scope and Strategy* New Delhi: Vishwa Yuva Kendra, 1985.

Ruhela. S.P. *Sociology of the Youth Culture in India*. Delhi: Indian, 2001.

BOOKS FOR REFERENCE

Kehily Jane Mary (Ed.). *Understanding Youth: Perspectives, Identities and Practices*. London: Sage, 2009.

Rajendran Vasanthi & David Paul. *Youth and Globalisation, Proceedings of the Workshop on Youth and Globalisation*. Mumbai: Rajiv Gandhi National Institute of Youth Development, Sriperumbudur and Tata Institute of Social Sciences, 2006.

JOURNALS

Endeavour, Journal of Youth Development, Vol.1, No.1 July-December, 2005. Rajiv Gandhi National Institute of Youth Development

Nehru Yuva Sandesh – Monthly Newsletter, Nehru Yuva Kendra Sangathan

Solution to Youth's Problem, Adam Publishers & Distributors. 2006.

AICUF Student Movement in India, AICUF Publications, 1990.

United Nations. World Youth Report. 2013.

WEB RESOURCES

www.yas.nic.in,

www.rgniyd.gov.in

www.tn.gov.in - Youth Welfare and Sports Department

www.nyks.org

www.un.org/youth

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

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Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)

Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)

Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 -2016)

COMMUNITY HEALTH

CODE: 15SW/PE/CH44

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To develop an understanding of the Community Health and Public Health situation at the regional, national and global level
- To create an awareness of the existing programmes and services at local, national and international levels and the need for a preventive, promotive and developmental approach
- To develop skills in programme planning and education for different target groups
- To develop a holistic and integrated approach to Social Work practice in the field of Community Health

Unit 1

Community Health

(10 hrs.)

- 1.1 Concept- Community Health, Community Mental Health
- 1.2 Public Health– Definition, Changing Concept and Development in India. Health Planning Cycle
- 1.3 Community Paediatrics, Community Geriatrics as Emerging Avenues for Health Promotion
- 1.4 Primary Health Care, Principles of Primary Health Care. Community Based Rehabilitation

Unit 2

Situational Analysis of Community Health

(12 hrs.)

- 2.1 Community Health Status at the National Levels, State and Regional Levels. Community Health Problems, Training of Community Health Workers
- 2.2 Impact of Globalisation, Privatisation and Liberalisation on Health. Trade and Intellectual Property Rights, Medical Tourism. Commercialization of Health Care
- 2.3 Environmental Health - Impact of War, Disasters and Displacement on Health
- 2.4 Right to Health, Right to Health Care and Access to Essential Medicines. Current Challenges in Attaining Health for All. Role of People's Health Movement

Unit 3

Health Policy and Legislation

(8 hrs.)

- 3.1 National Health Policy (2002)
- 3.2 Rehabilitation Council of India Act, National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act (1999)
- 3.3 Health in Disaster Situations

Unit 4

National Health Programmes and National Institutions

(12 hrs.)

- 4.1 National Health Programmes- Overview
- 4.2 Health Sector Reforms - National Rural Health Mission (NRHM), Indian Public Health Standards (IPHS)
- 4.3 Institutions- Role, Structure and Functions
Ministry of Social Justice & Empowerment, Govt. of India, State Commission for the Disabled, Rehabilitation Council of India, National Institute for Mental Health and Neuro Sciences
- 4.4 National Institute for Mental Disabilities, National Institute for the Visually Handicapped, National Institute for the Orthopaedically Handicapped, Ali Yavar Jung National Institute for the Hearing Handicapped, National Institute for the Mentally Handicapped and National Institute for Empowerment of Persons with Multiple Disabilities

Unit 5

Clinical and Non Clinical skills for Community Health and Mental Health Practice

(10 hrs.)

- 5.1 Approaches for Promotion of Health at All Levels – Pro-Active, Preventive, Developmental and Remedial Approaches
- 5.2 Basic Epidemiology and Vital Statistics
- 5.3 ICMR in Health Research, Clinical Trials

BOOKS FOR STUDY

Dhaar, G.M. & Robbani, I. *Foundations of Community Medicine*, New Delhi: Elsevier, 2006.

Garrett Martha, J. *Health Futures: A Handbook for Health Professionals*, Geneva: WHO, 2000.

Park, K., *Preventive and Social Medicine*, Jabalpur: Banarasidas, 1997.

Pritchard, Colin. *Mental Health Social Work – Evidence – Based Practice*, Routledge: Taylor and Francis Group, 2006.

BOOKS FOR REFERENCE

Antia, N H., Dutta, G.P., & Kasbekar, A.B., *Health and Medical Care- A People's Movement*, Pune: FRCH, 2000.

Bhattacharya, Sanjay. *Social Work Interventions and Management*, New Delhi: Deep & Deep, 2008.

Devitt ,Stella Jones, Smith. *Critical Thinking in Health &Social Care*, New Delhi: Sage, 2005.

JOURNALS

Indian Journal of Community Health

<http://www.iapsmupuk.org/journal/index.php/IJCH/index>

WEB RESOURCES

Ministry of Health and Family Welfare

<http://india.gov.in/ministry-health-and-family-welfare>

NHM Health Statistics Information Portal

<https://nrhm-mis.nic.in/SitePages/Home.aspx>

Department of Health Research (DHR)

<http://www.dhr.gov.in/#>

www.planningcommission.nic.in/reports/genrep/.../26_bg2020.doc

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)

Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)

Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2=20 marks (All questions to be answered in 50 words each)

Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)

Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTER OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015- 2016)

DEVELOPMENT PRACTICE – URBAN AND RURAL

CODE: 15SW/PE/UR44

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand and critically analyze rural, urban and tribal communities and the importance of development of these communities
- To enhance critical understanding of the models and strategies for Community Development practice
- To enable the students to understand development related issues

Unit 1

Rural Community Development (10 hrs.)

- 1.1 Definition, Concept and Characteristics of Rural Community: Rural Socio-Economic Structure - Family, Caste, Class, Power Structure
- 1.2 Historical Review of Rural Community Development and Nature and Scope of Rural Community Development
- 1.3 Rural Issues and Challenges: Poverty, Causes and Consequences of Poverty, Rural Backwardness, Casteism, Illiteracy, Unemployment, and Agrarian Crisis, Specific Problems of Dalits, Women and Children

Unit 2

Urban Community Development (10 hrs.)

- 2.1 Urban, Urbanism, Over-Urbanization, Urban Decay, Displacement, Urban Growth, Urbanisation Trends, Causes and Consequences, Urban Renewal, Urban Re – Location, Urban Ecology – Definition, Urban Ecological Processes; Classification of Urban Areas according to the Census of India
- 2.2 Historical Overview of Urban Community Development in India – Origin, Aims, Objectives, Organisation Structures – Pioneering Projects (Delhi, Baroda, Hyderabad)
- 2.3 Urban Issues and Challenges:Poverty-Size, Causes, Consequences, Urban Poverty Measures, Trends in Urban Poverty, Manifestation of Urban Poverty- Specific Problems Encountered by Urban Poor due to Displacement – Housing Infrastructure and Livelihood Problems- Homelessness, Quality of Life of Slum Dwellers, Population, Overcrowding, Social Exclusion, Migration and Increasing

Growth of Informal Sectors, Trafficking, Eviction, Displacement, Unemployment and Crime

Unit 3

Tribal Community Development (10hrs.)

- 3.1 Definition and Concepts; Tribal Socio-Economic Structure; Family System, Rituals and Rites, Tribal Economy, Society and Polity, Kinship Patterns, Animism and Tribal Culture
- 3.2 Tribal Community Development: Historical Over view of Tribal Development and Approaches to Tribal Development
- 3.3. Issues, Challenges and Problems of Tribal Communities: Alienation, Land Acquisition, Oppression, Deprivation, Bonded Labour, Exploitation, Tribal Dislocation and Resettlement, Lack of Basic Amenities; Displacement

Unit 4

Disaster Management and Displacement (10 hrs.)

- 4.1 Disaster Management - Concept, Definition, Types of Disasters
Stages in Disaster - Pre, During and Post Disaster; Psycho Social Aspects of Disasters. Problem Areas - Mitigation Measures, Risk Management, Vulnerability Analysis, Cost-Effective Analysis, Risk Reducing Measures
- 4.2 Types of Displacement - Development Induced, Disaster Induced, Man-Made, Rural and Urban, Internal and International, Forced Evictions. Development Induced Displacement, Economic Migrant, Immigrant, Voluntary and Involuntary Displacements; International Displacement

Unit 5

Models of Community Development (12 hrs.)

- 5.1 Asset Based Community Development (ABCD)
- 5.2 Result Based Accountability Model (RBA)
- 5.3 Appreciative Enquiry approach for Community Development (AE)
- 5.4 Participatory Planning for Sustainable Community Development (PPSCD)
- 5.5 Cooperative and Sustainable Community Development

BOOKS FOR STUDY

Bhatia, B.S. *Rural Development Management*, New Delhi: Deep & Deep, 2003.

Kumar, A. *Tribal Development in India*, New Delhi: Sarup & Sons, 2002.

Jacob Z. Thud Para, *Urban Community Development*, New Delhi: Rawat, 1993.

Rengasamy, S. *Introduction to Rural Community Development*, Madurai: Institute of Social Sciences, 2010

Rengasamy, S. *Introduction to Urban Community Development*, Madurai: Institute of Social Sciences, 2010

BOOKS FOR REFERENCE

Arya, R. P. *Training for Social Work and Rural Development*, Chennai: Manglam: 2007.

Behera M .C . *Globalisaing Rural Development*, New Delhi: International Development Research Centre, 2006.

David, Atchoarena , *Education for Rural Development*, Rajasthan: Rawat, 2003.

Gupta,K.R. *Rural Development in India*. Vol.1, New Delhi: Sarup & Sons, 2003.

Jain, Rashmi . *Communicating Rural Development*, Jaipur: Rawat, 2003.

Lalitha, N. *Self Help Groups in Rural Development*, New Delhi: Atlantic, 2003.

Narayan, Sachindra. *The Dynamics of Tribal Development. Issues and Challenges*, New Delhi: Gyan, 2002.

Patnaik, N. *Tribes and their Development: A study of Two Tribal Development Blocks in Orissa*, Hyderabad: National Institute of Community Development, 1977.

Prasad, B.K. *Rural Development : Concept, Approach and Strategy*, New Delhi: Sarup & Sons, 2003.

Reddy, Sateesh K. *Multi-faceted Rural Development Dominant*, New Delhi: 2002.

Sathyanarayana G. *Voluntary Effort and Rural Development*, Rajasthan: Rawat, 2007.

Sharma, A.N. *Tribal Development in Andaman Islands*, New Delhi: Sarup & Sons, 2003.

Soni, Jasprit Kaur. *Introspection of Tribal Development*, New Delhi: Sonali, 2004.

Thakur Ashutosh, *Tribal Development and its Paradoxes*, Calcutta: Authors , 2001.

JOURNALS

Development – Quarterly

Yojana – Monthly

WEB RESOURCES

<http://www.tn.gov.in/departement/15>

<http://rsamuel.webnode.com/urban-community-development/>

<http://ageconsearch.umn.edu/bitstream/132204/2/2001-2-8.pdf>

<http://www.ifad.org/english/cdd/pub/decisiontools.pdf>

PATTERN OF EVALUATION

Continuous Assessment

Total Marks - 50

Duration - 90 mins.

Section – A 5 x 2 = 10 marks (All questions to be answered in 50 words each)
Section – B 2 x 10 = 20 marks (2 out of 3 questions to be answered in 600 words each)
Section – C 1 x 20 = 20 marks (1 out of 2 questions to be answered in 1200 words each)

1 Compulsory Continuous Assessment Test will be conducted.

1 Assignment of 50 marks will be given which is compulsory – Theory – 15 marks, Field application and interpretation – 20 marks, Seminar Presentation – 15 marks

End Semester Examination

Total Marks - 100

Duration - 3 Hours

Section – A 10 x 2 = 20 marks (All questions to be answered in 50 words each)
Section – B 4 x 10 = 40 marks (4 out of 6 questions to be answered in 600 words each)
Section – C 2 x 20 = 40 marks (2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
MASTERS OF SOCIAL WORK

SYLLABUS
(Effective from the academic year 2015 – 2016)

DISASTER MANAGEMENT

CODE: 15SW/PI/DM24

CREDITS: 4

OBJECTIVES OF THE COURSE

- To develop an understanding of eco system equilibrium and disequilibrium
- To develop skills to analyze the factors leading to disaster
- To develop an understanding of the process of Disaster Management
- To understand the role of the Social Worker in Disaster Management

Unit 1

Disasters – An Introduction

- 1.1 Concept: Definition; Basic Disaster Aspects, Types of Disasters-Natural, Instantaneous, Creeping, Technological Disasters and Their Interaction
- 1.1 Refugees/Repatriates

Unit 2

Disaster Management Cycle

- 2.1 Disaster Management Cycle: Prevention, Mitigation, Preparedness, Response, Recovery and Rehabilitation.
- 2.2 Stages in Disaster-Pre, During and Post Disaster
- 2.3 Psychosocial Aspects of Disaster

Unit 3

Disaster Mitigation

- 3.1 Mitigation-Guiding Principles of Mitigation
- 3.2 Problem Area-Mitigation Measures, Risk Management, Vulnerability Analysis, Cost- Effective Analysis, Risk Reducing Measures
- 3.3 Formulation and Implementation of Mitigation Programmes

Unit 4

Interventions in Disasters

- 4.1 Management Policy/Legislation, Relief, Recovery (Rehabilitation Management Policy, Legislation)
- 4.2 National /International Resources (Funding Agencies)

Unit 5

Role of Social Work in Disasters

- 5.1 Role of the Social Worker in Disaster Management
- 5.2 Utilisation of Resources/Training and Public Awareness

BOOKS FOR REFERENCE

- Bose, B., C. *Disaster Management in India*. New Delhi :Rajat, 2007.
- Bose, B., C. *Disaster Management in 21st Century*. New Delhi: Rajat, 2007.
- Goel, S., L. *Encyclopedia of Disaster Management*. New Delhi: Deep & Deep, 2007.
- Goel, S., L. *Disaster Management Organisations and Management, Health Management of Human Being and Animals*. New Delhi: Deep & Deep, 2001.
- Newburn, Tim. *Disaster & After*. London: Jessica Kingsley, 1993.
- Prabhas, Chandra, Sinha. *Disaster Management Process, Law, Policy & Strategy*. New Delhi: SBS, 2006.
- Prabhas, Chandra, Sinha. *Disaster Relief, Rehabilitation & Emergency Humanitarian Assistance*. New Delhi: SBS, 2006.
- Prabhas, Chandra, Sinha. *Disaster Vulnerabilities & Risks*. New Delhi: SBS, 2006.
- Prabhas, Chandra, Sinha. *Disaster Mitigation, Preparedness, Recovery & Response*. New Delhi: SBS, 2006.
- Sanjay, K., Roy. *Refugees and Human Rights*. Jaipur: Rawat, 2001.
- Smita. *Locked Homes Empty Schools*. New Delhi: Zubaan, 2007.
- Singh, R., B. *Disaster Management*. Jaipur: Rawat, 2000.
- Verma, K. Manish. *Development, Displacement and Resettlement*. Jaipur: Rawat, 2004.

WEB RESOURCES

www.disasterready.org/

<http://preventionweb.net/go/9640>

https://iwhw.boku.ac.at/.../references/.../E_risk-management-applications_8062.pdf

PATTERN OF EVALUATION

End Semester Examination

Total Marks - 100

Section – A 10 x 2 = 20 marks

Section – B 4 x 10 = 40 marks

Section – C 2 x 20 = 40 marks

Duration - 3 Hours

(All questions to be answered in 50 words each)

(4 out of 6 questions to be answered in 600 words each)

(2 out of 4 questions to be answered in 1200 words each)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)
MODERN ALGEBRA

CODE : 15MT/PC/MA14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the general concepts in Advanced Abstract Algebra
- To give developments in various algebraic structures
- To lay the foundation for a variety of courses

Unit 1		(16 hrs.)
Group Theory		
1.1 Counting Principle		
1.2 Cauchy's Theorem		
1.3 Sylow's Theorem (second proof only)		
1.4 Direct Products		
1.5 Finite Abelian Groups		
Unit 2		(10 hrs.)
Ring Theory		
2.1 Euclidean Rings		
2.2 Definition- Properties		
2.3 Unique Factorization Theorem		
2.4 A particular Euclidean ring		
2.5 Fermat's Theorem		
Unit 3		(10 hrs.)
Ring Theory (contd.)		
3.1 Polynomial Rings		
3.2 Polynomials over the Rational Field		
Unit 4		(14 hrs.)
Fields		
4.1 Extension Fields		
4.2 The Transcendence of e		
4.3 Roots of Polynomials		

Unit 5**(15 hrs.)****Fields (contd.)**

5.1 More about Roots

5.2 The Elements of Galois Theory (Exclude proof of Galois theorem)

5.3 Solvability by Radicals

TEXT BOOKHerstein, I. N. *Topics in Algebra*. 2nd Ed. New Delhi : Wiley Eastern Limited, 2007.

Chapter 2 Sections 2.11 – 2.14 (omit Lemma 2.12.1, Lemma 2.12.2)

Chapter 3 Sections 3.7 - 3.10

Chapter 5 Sections 5.1 - 5.3, 5.5- 5.7

BOOKS FOR REFERENCEFraleigh J.B. *A First course in Abstract Algebra*. 2nd ed. London : Addison – Wesley Publishing Company, 1975.Lang Serge, *Algebra*, 3rd Revised ed. New Delhi : Springer International Edition, 2004.Santiago, M.L. *Modern Algebra*. New Delhi : Tata McGraw-Hill Publishing Company Limited, 2002.Vasistha A.R., and A.K. Vasistha.. *Modern Algebra*. Meerut : Krishna Prakashan Media (P) Ltd., 2006.**WEB RESOURCES**<http://cs.jsu.edu/~leathrum/Mathlets/polyroots.html><http://www.akiti.ca/PolyRootRe.html>**PATTERN OF EVALUATION****Continuous Assessment:****Total Marks: 50****Duration: 90 Mins.**Section A: $2 \times 2 = 4$ (Two questions to be set)Section B: $2 \times 6 = 12$ (Three questions to be set)Section C: $2 \times 17 = 34$ (Three questions to be set)**Third Component :**

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments
Project
Theorem writing technique
Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

REAL ANALYSIS

CODE : 15MT/PC/RA14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the general concepts of Analysis in the Euclidean space \mathbb{R}^n
- To lay the foundation for a variety of courses
- To impart knowledge on the concepts of double sequences and double series
- To impart knowledge on the concepts of Infinite Series and Infinite Products

Unit 1 (14 hrs.)

Elements of point set Topology

- 1.1 Euclidean Space \mathbb{R}^n
- 1.2 Open Balls and Open Sets in \mathbb{R}^n
- 1.3 Structure of Open Sets in \mathbb{R}^1
- 1.4 Closed Sets – Adherent and Accumulation points
- 1.5 Bolzano-Weierstrass Theorem
- 1.6 Cantor Intersection Theorem
- 1.7 Lindelöf Covering Theorem
- 1.8 Heine–Borel Covering Theorem
- 1.9 Compactness in \mathbb{R}^n

Unit 2 (10 hrs.)

Infinite Series and Infinite Products

- 2.1 Double Sequences
- 2.2 Double Series
- 2.3 Rearrangement Theorem for Double Series
- 2.4 Sufficient Condition for Equality of Iterated Series
- 2.5 Multiplication of Series
- 2.6 Cesaro Summability
- 2.7 Infinite Products

Unit 3 (13 hrs.)

Sequences and Series of Functions

- 3.1 Pointwise Convergence
- 3.2 Uniform Convergence – Examples
- 3.3 Uniform Convergence and Continuity

- 3.4 Cauchy Condition for Uniform Convergence
- 3.5 Uniform Convergence of Infinite Series of Functions
- 3.6 Uniform Convergence and Double Sequences
- 3.7 Taylor's Series generated by a Function
- 3.8 Bernstein's Theorem

Unit 4 **(14 hrs.)**

Multivariable Differential Calculus

- 4.1 The Directional Derivative
- 4.2 Directional Derivative and Continuity
- 4.3 Total Derivative - Total Derivative expressed in terms of Partial Derivatives
- 4.4 Jacobian Matrix
- 4.5 Chain Rule – Matrix Form
- 4.6 Mean Value Theorem
- 4.7 Sufficient Condition for Differentiability
- 4.8 Equality of Mixed Partial Derivatives
- 4.9 Taylor's Formula for Functions from \mathcal{R}^n to \mathcal{R}^1

Unit 5 **(14 hrs.)**

Implicit Functions and Extremum Problems

- 5.1 Implicit Functions and Extremum Problems
- 5.2 Functions with non-zero Jacobian Determinant
- 5.3 The Inverse Function Theorem
- 5.4 Implicit Function Theorem
- 5.5 Extrema of Real Valued Functions of one Variable
- 5.6 Extrema of Real Valued Functions of several Variables

TEXT BOOK

Apostol, Tom M., *Mathematical Analysis* 2nd ed. New Delhi: Addison – Wesley / Narosa Indian Student Edition, 1974.

Chapter 3	Sections	3.1 – 3.12.
Chapter 8	Sections	8.20 – 8.26.
Chapter 9	Sections	9.1 - 9.6, 9.12, 9.19, 9.20.
Chapter 12	Sections	12.1 - 12.5, 12.7 - 12.14.
Chapter 13	Sections	13.1 - 13.6.

BOOKS FOR REFERENCE

Charles G Denlinger, Sorensen Harry A, *Elements of Real Analysis*, New Delhi: Jones & Bartlett Learning, 2011.

Malik S C, *Principles of Real Analysis*. Third edition. New Delhi: New Age international Publishers, 2011.

Nader Vakil, *Real Analysis Through Modern Infinitesimals*, Cambridge university press, 2011.

Terrance J Quinn, *Pathways to Real analysis*, New Delhi: Narosa Publishing House, 2009.

WEB RESOURCES

http://www.maa.org/sites/default/files/images/upload_library/47/StemkoskiStorm/TaylorApprox.html

http://www.maa.org/sites/default/files/images/upload_library/47/StemkoskiStorm/MVT.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Project

Theorem writing technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

CONTINUUM MECHANICS

CODE: 15MT/PC/CM14

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the concept of stress and strain analysis
- To introduce the laws involved in the motion of flow

Unit 1 (15 hrs.)

Analysis of Stress

- 1.1 Continuum Concept
- 1.2 Homogeneity, Isotropy, Mass-Density
- 1.3 Body Forces, Surface Forces
- 1.4 Cauchy's Stress Principle, The Stress Vector
- 1.5 State of Stress at a Point, Stress Tensor
- 1.6 The Stress Tensor-Stress Vector Relationship
- 1.7 Force and Moment, Equilibrium, Stress Tensor Symmetry
- 1.8 Stress Transformation Laws
- 1.9 Stress Quadric of Cauchy
- 1.10 Principal Stresses, Stress Invariants, Stress Ellipsoid
- 1.11 Deviator and Spherical Stress Tensors

Unit 2 (9 hrs.)

Deformation

- 2.1 Particles and Points
- 2.2 Continuum Configuration, Deformation and Flow Concepts
- 2.3 Position Vector, Displacement Vector
- 2.4 Lagrangian and Eulerian Descriptions
- 2.5 Deformation Gradients, Displacement Gradients
- 2.6 Deformation Tensors

Unit 3 (14 hrs.)

Strain Tensors, Motion and Flow

- 3.1 Finite Strain Tensors
- 3.2 Small Deformation Theory, Infinitesimal Strain Tensors
- 3.3 Relative Displacements, Linear Rotation Tensor, Rotation Vector
- 3.4 Principal Strains, Strain Invariants, Cubical Dilatation

- 3.5 Spherical and Deviator Strain Tensors
- 3.6 Motion, Flow, Material Derivative
- 3.7 Velocity, Acceleration, Instantaneous Velocity Field
- 3.8 Path Lines, Stream Lines, Steady Motion

Unit 4 **(16 hrs.)**

Fundamental Laws of Continuum Mechanics

- 4.1 Rate of Deformation, Vorticity, Natural Strain
- 4.2 Physical Interpretation of Rate of Deformation and Vorticity Tensors
- 4.3 Material Derivatives of Volume, Area and Line Elements
- 4.4 Conservation of Mass, Continuity Equation
- 4.5 Linear Momentum Principle, Equations of Motion
- 4.6 Equilibrium Equations
- 4.7 Angular Momentum Principle

Unit 5 **(11 hrs.)**

Linear Elasticity

- 5.1 Generalized Hooke's Law, Strain Energy Function
- 5.2 Isotropy, Anisotropy, Elastic Symmetry
- 5.3 Isotropic Media, Elastic Constants

TEXT BOOK

Mase George E., *Continuum Mechanics*. Schaum's Outlines, Tata McGraw-Hill Publishing Company Ltd., 2005.

Chapter 2	Sections 2.1 - 2.10, 2.14
Chapter 3	Sections 3.1 - 3.8, 3.13, 3.14
Chapter 4	Sections 4.1 - 4.6
Chapter 5	Sections 5.1 - 5.3
Chapter 6	Sections 6.1 - 6.3

BOOKS FOR REFERENCE

Temam, Roger M, Srivastava, R.J, Temam, Roger M, Srivastava, R.J, *Mathematical Modeling in Continuum Mechanics*, London: Cambridge university press, 2005.

George E Mase, Srivastava, R.J, Schaum's outlines *Theory and Problems of Continuum Mechanics*, New Delhi: Tata McGraw hill, 2005.

Garry E, Boroman, *Essential Quantum Mechanics*, New York: Oxford University Press, 2011.

Mukherjee B.N, B.C Das, *Dynamics*, Kolkata: U.N. Dhur & Sons Private Ltd., 2010.

JOURNALS

The Journal of Strain Analysis for Engineering Design (J STRAIN ANAL ENG) Publisher: Institution of Mechanical Engineers (Great Britain); Joint British Committee for Stress Analysis, Professional Engineering Publishing

The Journal of Strain Analysis for Engineering Design. Editor: Professor E A Patterson, University of Liverpool, UK.

Journal of the Mechanics and Physics of Solids, Plane strain deformation near a crack tip in a power-law hardening material. Volume 16, Issue 1, January 1968, Pages 1–12.

Journal of Applied Mechanics | Volume 36 | Issue 1 | Research Paper, Elastic-Plastic Deformation at Finite Strains, E. H. Lee.

WEB RESOURCES

http://www.mae.ncsu.edu/zhu/courses/mae314/lecture/Lecture2_Stress-Strain.pdf

<http://www.brown.edu/Departments/Engineering/Courses/En221/Notes/notes.html>

<http://www.brown.edu/Departments/Engineering/Courses/En221/Notes/Elasticity/Elasticity.htm>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of evaluation modes:

Seminars

Quiz

Open book tests

Group discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

DIFFERENTIAL EQUATIONS

CODE: 15MT/PC/DE14

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To introduce mathematical techniques for analyzing and solving ordinary and partial differential equations.
- To apply ordinary and partial differential equations to dynamical problems of practical interest

Unit 1 (13 hrs.)

Linear Differential Equations of Higher Order

1.1 Introduction – Linear Dependence and Wronskian

1.2 Basic Theory for Linear Equations

1.3 Abel's Formula

Some Special Functions of Mathematical Physics

1.4 Legendre Equation and Legendre Polynomials

1.5 Bessel Equation

Unit 2 (15 hrs.)

Existence and Uniqueness of Solutions

2.1 Introduction – Lipschitz condition – Gronwall Inequality

2.2 Successive Approximation

2.3 Picard's Theorem

Boundary Value Problems

2.4 Introduction – Sturm-Liouville problem

Unit 3 (13 hrs.)

Partial Differential Equations

3.1 General Method of Solving Equations of Order One but of any Degree - Charpit's Method

3.2 Partial Differential Equations of Order Two with Variable Coefficients – Canonical Forms

Boundary Value Problems

3.3 Derivation of One and Two Dimensional Wave Equation – One Dimensional Heat Equation

Unit 4 (13 hrs.)

Solution to Boundary Value Problems

4.1 Solution by Separation of Variables Method

- 4.2 Solution of One, Two and Three Dimensional Heat Equation
- 4.3 Solution of One and Two Dimensional Wave Equation

Unit 5

(11 hrs.)

Solution to Boundary Value Problems (contd.)

- 5.1 Solution of Two and Three Dimensional Laplace Equation
- 5.2 Use of Plane Polar Co-ordinates for Solution of Two Dimensional Laplace Equation

TEXT BOOKS

Deo, S. G. and Ragavendra V. *Ordinary Differential Equations and Stability Theory*. New Delhi: Tate McGraw – Hill Publishing Company Limited, 1980.

- Chapter 2 Sections 2.1 – 2.3, 2.5
- Chapter 3 Sections 3.3, 3.5
- Chapter 5 Sections 5.1 – 5.4
- Chapter 7 Sections 7.1 – 7.2

Raisinghania M.D. *Advanced differential equations*, New Delhi: S.Chand & Co. Ltd., Ramnagar, 2000

- Chapter 2 Sections 2.5
- Chapter 4 Sections 4.7
- Boundary Value Problems
- Chapter 1 Sections 1.1 – 1.20

BOOKS FOR REFERENCE

Ahmed Shair and M. Rao Rama Mohana. *Theory of Ordinary Differential Equations with Applications in Biology and Engineering*. New Delhi: Affiliated East – West Press Pvt. Ltd., 1999.

Coddington, Earl A. *An Introduction to Ordinary Differential Equations*. New Delhi: Prentice – Hall of India Pvt. Ltd., 1998.

Donald Greenspan, *Introduction to Partial Differential Equations*, New Delhi: Tata McGraw – Hill Publishing Co. Ltd., 1961.

Sharma, J.N. and Kehar Singh. *Partial Differential Equations for Engineers and Scientists*. New Delhi: Narosa Publishing House, 2000.

Simmons George F., and Robertson John S., *Differential Equations with Applications and Historical notes*, New Delhi: Tata McGraw – Hill Publishing Company Ltd., 1991.

Sneddon Ian N. *Elements of Partial Differential Equations*, International Student Edition, New Delhi: McGraw – Hill Book Co. Inc. 1957.

JOURNAL

International Journal of Mathematical Education in Science and Technology

WEB RESOURCES

www.physics.nus.edu.sg/~phylimhs/SeriesODE7.pdf
tutorial.math.lamar.edu/.../SeparationofVariables.aspx
nptel.ac.in/courses/111107063/

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of evaluation modes:

Seminars

Quiz

Open book tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit).

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE : BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

NUMBER THEORY AND CRYPTOGRAPHY

CODE : 15MT/PE/NC14

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To provide an introductory course in Number theory
- To introduce the fast growing and relevant topic of cryptography as an application of Number theory

Unit 1	Elementary Number Theory 1.1 Time Estimates for doing Arithmetic 1.2 Divisibility and the Euclidean Algorithm	(8 hrs.)
Unit 2	Elementary Number Theory (contd.) 2.1 Congruences 2.2 Some Applications to Factoring	(8 hrs.)
Unit 3	Finite Fields and Quadratic Residues 3.1 Finite Fields 3.2 Quadratic Residues and Reciprocity	(12 hrs.)
Unit 4	Cryptography 4.1 Some Simple Cryptosystems 4.2 Enciphering Matrices	(12 hrs.)
Unit 5	Public Key 5.1 Public Key Cryptography 5.2 RSA 5.3 Pseudoprimes 5.4 The Rho Method	(12 hrs.)

TEXT BOOK

Koblitz, Neal, *A Course in Number Theory and Cryptography*, second edition, New York: Springer – Verlag, 2002.

Chapter 1: Sec. 1 – 4

Chapter 2: Sec. 1, 2

Chapter 3: Sec. 1, 2

Chapter 4: Sec. 1, 2

Chapter 5: Sec. 1, 2

BOOKS FOR REFERENCE

Christof Paar, Srivastava,R.J, *Understanding Cryptography*, New York: Springer, 2010.

Delfs Hans , Srivastava,R.J, *Introduction to cryptography, Principles and applications*, New York: Springer, 2002.

Ireland K., and Michael Rosen, *A Classical Introduction to Modern Number Theory*, second edition, New York: Springer Verlag, 2004.

JOURNALS

Journal of Number Theory

INTEGERS: Electronic Journal of Combinatorial Number Theory

Turkish Journal of Analysis and Number Theory

International Journal of Number Theory

WEB RESOURCES

<http://www.math.utk.edu/~finotti/papers/grad.pdf>

<http://www.cse.iitd.ernet.in/~bagchi/courses/discrete-book/ch2.pdf>

http://almuhammadi.com/sultan/crypto_books/Koblitz.2ndEd.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of evaluation modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:**Total Marks: 100****Duration: 3 Hours**

Section A : $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B : $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit).

Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE : BRANCH I - MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

ANALYSIS OF ALGORITHMS

CODE : 15MT/PE/AA14

CREDIT : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To introduce different methods to solve problems in an abstract setup
- To analyse algorithms to choose the better algorithm

Unit 1		(8 hrs.)
	Analysis of Algorithm	
	1.1 Input Classes	
	1.2 Space Complexity	
	1.3 Cases to Consider	
	1.4 Rates of Growth	
	1.5 Divide and Conquer Algorithms	
	1.6 Recurrence Relations	
Unit 2		(10 hrs.)
	Searching and Selection Algorithms	
	2.1 Binary Search - Case Analysis	
	2.2 Selection	
Unit 3		(11 hrs.)
	Sorting Algorithms	
	3.1 Insertion Sort - Case Analysis	
	3.2 Heap sort - Case Analysis	
	3.3 Quick sort - Case Analysis	
Unit 4		(13 hrs.)
	Matching Algorithm	
	4.1 String Matching	
	4.2 Finite Automata	
	4.3 Knuth-Morris-Pratt Algorithm	
	Graph Algorithms	
	4.4 Data Structures for Graphs	
	4.5 Depth First and Breadth First Traversal Algorithms	
	4.6 Minimum Spanning Tree Algorithms	

- 4.7 The Dijkstra-Prim Algorithm
- 4.8 The Kruskal Algorithm

Unit 5

(10 hrs.)

Nondeterministic Algorithms

- 5.1 NP-Complete Problems
- 5.2 Conditions for NP
- 5.3 Job Scheduling – Graph Coloring

TEXT BOOK

McConnell, Jefferey J. *Analysis of Algorithms: An Active Learning Approach*, New Delhi: Narosa Publishing House, 2002.

Chapter 1	Sections 1.1, 1.1.1, 1.1.2, 1.2, 1.2.1, 1.4, 1.4.1, 1.5, 1.5.1, 1.5.2, 1.6
Chapter 2	Sections 2.2, 2.2.1, 2.2.2, 2.2.3, 2.3
Chapter 3	Sections 3.1, 3.1.1, 3.1.2, 3.5, 3.5.1, 3.5.2, 3.7, 3.7.1, 3.7.2
Chapter 5	Sections 5.1, 5.1.1, 5.1.2
Chapter 6	Sections 6.2, 6.2.1, 6.2.2, 6.3, 6.3.1, 6.3.2, 6.3.3, 6.4, 6.4.1, 6.4.2
Chapter 8	Sections 8.1 – 8.4

BOOKS FOR REFERENCE

Goodman and Hedetniemi. *Introduction to the Design and Analysis of Algorithms*. New Delhi: McGraw-Hill International Editions, 1997.

Horowitz Ellis, Sahni Sartaj and Rajasekaran Sanguthevar. *Fundamentals of Computer Algorithms*. 2nd ed. New Delhi: Galgotia Publciation Pvt. Ltd., 2007.

Loudon, Kyle. *Mastering Algorithms with C*. Mumbai: Shroff Publishers & Distributors Pvt. Ltd., 1999.

Gajavelli S.S., Bhishma Rao, *Discrete Structures and Graph Theory*. Chennai: Scitech Publications Pvt. Ltd., 2003.

JOURNALS

Journal of Algorithms & Computational Technology

Journal of Mathematical Modelling and Algorithms in Operations Research

WEB RESOURCES

Sedgewick Robert, Flajolet Phillippe, *An Introduction to the Analysis of Algorithms*, Pearson Education, Inc, 2013 (e-book)

www.personal.kent.edu/~rmuhamma/Algorithms/algorithm.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE : BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

SOFT SKILLS

CODE : 15MT/PK/SS22

CREDITS : 2

L T P : 2 0 0

TOTAL TEACHING HOURS : 26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self development
- To instill confidence and face challenges

Unit 1 (6 hrs)

Behavioural Traits

- 1.1 Self Awareness
- 1.2 Communication Skills – Verbal and Non Verbal
- 1.3 Leadership Qualities
- 1.4 Etiquette and mannerisms
- 1.5 Experiential Learning – Based on activities

Unit 2 (5 hrs)

Team Work

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on activities

Unit 3 (5 hrs)

Time Management

- 3.1 Importance of time management
- 3.2 Planning and Prioritizing
- 3.3 Organizing skills
- 3.4 Action Plan
- 3.5 Experiential Learning – Based on activities

Unit 4 (5 hrs)

Conflict Resolution

- 4.1 Reasons for conflict
- 4.2 Consequences of conflict
- 4.3 Managing emotions
- 4.4 Methods of resolving conflicts
- 4.5 Experiential Learning – Based on activities

Unit 5

(5 hrs)

Career Mapping

- 5.1 Goal Setting and Decision Making
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on activities

Workshop on Societal Analysis

BOOKS FOR REFERENCE

Khera, Shiv, (2002), **You Can Win**, Macmillan India Ltd., Delhi.

Mishra, Rajiv K., (2004), **Personality Development : Transform Yourself**, Rupa and Co., New Delhi.

Newstrom, John W. and Scannell, Edward E., (1980), **Games Trainers Play: Experiential Learning**, Tata McGraw Hill, New Delhi.

PATTERN OF EVALUATION (Totally Internal)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE : BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

LINEAR ALGEBRA

CODE : 15MT/PC/LA24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOUR: 65

OBJECTIVES OF THE COURSE

- To introduce the canonical forms for linear transformations on vector spaces
- To introduce the forms on inner product spaces

Unit 1 (10 hrs.)

Modules

- 1.1 Definition and Examples
- 1.2 Direct Sum
- 1.3 Fundamental Theorem on Finitely Generated Modules

Unit 2 (13 hrs.)

Linear Transformations

- 2.1 Canonical Forms: Triangular Forms
- 2.2 Canonical Forms: Nilpotent Transformations

Unit 3 (12 hrs.)

Linear Transformations (contd.)

- 3.1 Canonical Forms: A Decomposition of V : Jordan Form
- 3.2 Canonical Forms: Rational Canonical Form

Unit 4 (15 hrs.)

Elementary Canonical Forms

- 4.1 Characteristic Values
- 4.2 Annihilating Polynomials
- 4.3 Invariant Subspaces
- 4.4 Simultaneous Triangulation; Simultaneous Diagonalization

Unit 5 (15 hrs.)

Inner Product Spaces

- 5.1 Linear Functionals and Adjoint
- 5.2 Unitary Operators
- 5.3 Normal Operators
- 5.4 Forms on Inner Product Spaces

TEXT BOOKS

Herstein . I.N. *Topics in Algebra*, 2nd Ed. New Delhi : Wiley Eastern limited, 1994.

Chapter 4 Section 4.5.
Chapter 6 Sections 6.4 – 6.7

Hoffman, Kenneth and Ray Kunze. *Linear Algebra*. 2nd ed. New Delhi : Prentice-Hall of India. Private Ltd., 1971.

Chapter 6 Sections 6.2 - 6.5
Chapter 8 Sections 8.3 - 8.5
Chapter 9 Sections 9.1 - 9.2

BOOKS FOR REFERENCE

Artin Michel, *Algebra*. New Delhi : Prentice Hall of India Private Ltd., 2007.

Lang Serge, *Algebra* 3rd Revised Ed. New Delhi : Springer International Edition, 2004.

Noble Ben, Daniel James W. *Applied Linear algebra* , India : Prentice-Hall of India, 1969.

Sahai Vivek, and Vikas Bist. *Linear Algebra*. New Delhi : Narosa Publishing House, 2002.

WEB RESOURCES

<http://www.math.ucla.edu/~tao/resource/general/115a.3.02f/linearMap.html>

<http://www.math.ucla.edu/~tao/resource/general/115a.3.02f/EigenMap.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A : $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit).

Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE : BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

MEASURE THEORY AND INTEGRATION

CODE: 15MT/PC/MI24

CREDIT: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the concept of non-negative measures on the real line
- To develop the theory of integration via: measure, the knowledge of which is essential for working in most branches of modern Analysis
- To introduce a study of inequalities and the L^p -spaces
- To introduce the concept signed measures and decomposition theorems

Unit 1 (12 hrs.)

Measure on the Real Line

- 1.1 Lebesgue Outer Measure
- 1.2 Measurable Sets
- 1.3 Regularity
- 1.4 Measures and Outer Measures

Unit 2 (12 hrs.)

Abstract Measure Spaces

- 2.1 Measurable Functions
- 2.2 Borel and Lebesgue Measurability
- 2.3 Completion of a Measure
- 2.4 Measure Spaces

Unit 3 (15 hrs.)

Integration of Functions

- 3.1 Integration of Non-negative Functions
- 3.2 The General Integral
- 3.3 Riemann and Lebesgue Integrals
- 3.4 Integration with respect to a Measure

Unit 4 (13 hrs.)

L^p Spaces

- 4.1 L^p Spaces
- 4.2 Convex Function
- 4.3 Completeness of L^p

Convergence

- 4.4 Convergence in Measure

Unit 5**(13 hrs.)****Signed measures and their derivatives**

5.1 Signed Measures

5.2 Hahn, Jordan Decompositions

5.3 The Radon Nikodym theorem

5.4 Some Applications of the Radon Nikodym Theorem

TEXT BOOK

G. de Barra. *Measure Theory and Integration*, New Delhi : New Age International Pvt. Limited, 1981.

Chapter 2	Sections	2.1 – 2.5
Chapter 3	Section	3.1, 3.2, 3.4
Chapter 5	Section	5.1, 5.4 – 5.6
Chapter 6	Sections	6.1, 6.2, 6.5
Chapter 7	Sections	7.1
Chapter 8	Sections	8.1 - 8.4

BOOKS FOR REFERENCE

Ganapathy Iyer, V., *Mathematical Analysis*, New Delhi : Tata McGraw Hill Publishing Company Ltd., 1977.

Munroe, M.E. *Introduction to Measure and Integration*, (Second Printing), USA : Addison Wesley, Publishing Company, Inc., 1959.

Rana, I.k., *An introduction to Measure and Integration*, New Delhi : Narosa Publishing House, 1997.

Royden, H.L. *Real Analysis*. 3rd ed. Ninth Indian Reprint. New Delhi: Prentice- Hall of India Private Limited, 2003.

WEB RESOURCES

http://www.maa.org/sites/default/files/images/upload_library/47/StemkoskiStorm/RiemannSums.html

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit).

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

RESEARCH METHODS AND TOOLS

CODE:15MT/PC/RT24

CREDITS: 4

L T P: 1 0 5

TOTAL TEACHING HOURS: 78

OBJECTIVES OF THE COURSE

- To inculcate research curiosity
- To acquaint with research methodology
- To provide the necessary mathematical tools to prepare a project

Unit 1 (13 hrs.)

Research Methodology

- 1.1 Introduction – Motivation
- 1.2 Formulating a Research Problem
- 1.3 Data Collection – Analyzing and Processing
- 1.4 Report Writing – Content – Format – Text Layout – Style – Packaging and Presentation, Characteristics of Good Reporting, Suggestions and Recommendations

Unit 2 (13 hrs.)

Creating a Document Using Latex

- 2.1 Typesetting – Font – Document – Document Class – Page Style – Numbering – Formatting
- 2.2 Typesetting Mathematics – Typesetting Theorems – Floats
- 2.3 Cross References – Foot notes – Bibliography

Unit 3 (13 hrs.)

Multimedia: Macromedia Flash 8

- 3.1 Vector Drawing
- 3.2 Timeline – Tool bar – Panel
- 3.3 Creating Objects – Editing Objects – Color and Text – Symbols and Instances
- 3.4 Frames and Layers
- 3.5 Animations
- 3.5 Interactivity

Unit 4 (13 hrs.)

Mathematical Software: MATHCAD 14

- 4.1 Creating Mathcad Worksheets: Working with Math, text regions
- 4.2 Computational Features: Calculations – Operators – Built-in functions – Vectors, Matrices and Data Arrays
- 4.3 Graphing: 2D plots – 3D plots
- 4.4 Symbolic Calculations
- 4.5 Programming

Unit 5 (26 hrs.)

Project Preparation and Presentation involving

- 5.1 Mathcad
- 5.2 Flash
- 5.3 Latex

TEXT BOOKS AND REFERENCE BOOKS

Blake Bonnie, Sahlin Doug, *Flash 8 – A Beginners' Guide*, New Delhi: Dreamtech Press, 2006.

Kothari C R, *Research Methodology*, New Delhi: New Age International Publishers Ltd, 2004.

Larsen W Ronald, *Introduction to Mathcad 13*, New Jersey: Pearson Prentice Hall, 2007.

Leslie Lamport, *LaTeX : A Documentation Preparation System User's Guide and Reference Manual*, Mass : Addison Wesley, 1994.

Reinhardt Robert, Dowd Snow, *Flash MX Bible*, New Delhi: Wiley – Dreamtech India Pvt. Ltd, 2002.

Steven G. Krantz, *Mathematical Publishing*, USA : AMS Publication, 2005.

Suresh Chandra, *Research Methodology*, New Delhi: Narosa Publishing House, 2013.

User's Guide Mathcad 14 – 2007 USA: Parametric Technology Corporation, 2007.

WEB RESOURCES

http://www.cv.nrao.edu/~abridle/toolmemo/miktex_manual.pdf

http://w3.id.tue.nl/fileadmin/id/objects/E-Atelier/Phidgets/Software/Flash/fl8_tutorials.pdf

PATTERN OF EVALUATION

INTERNAL ASSESSMENT – 90 Mins.

Third Component – Project

Continuous Assessments I and II:

Theory (10 marks): $1 \times 10 = 10$ (Two questions to be set from Unit 1)

Practical (40 marks): $2 \times 20 = 40$ (Three questions to be set)

END SEMESTER EXAMINATION – 3 Hours

Theory (20 marks) : $2 \times 10 = 20$ (Three questions to be set from Unit 1)

Practical(80 marks) : $4 \times 20 = 80$ (Four questions to be answered without omitting any Section:

Section – A (Two questions to be set from Unit 2)

Section – B (Two questions to be set from Unit 3)

Section – C (Two questions to be set from Unit 4))

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

FUZZY SET THEORY AND APPLICATIONS

CODE : 15MT/PE/FT14

CREDIT: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce the concept of Fuzzy Mathematics
- To cite the applications of Fuzzy Mathematics in various fields

Unit 1		(11 hrs.)
Fuzzy Sets and Operations		
1.1 Fuzzy Sets – Basic Concepts		
1.2 Characteristics and Significance of the Paradigm Shift		
1.3 Operations on Fuzzy Sets		
1.4 Types of Fuzzy Sets		
1.5 Properties of α – cuts		
Unit 2		(10 hrs.)
Properties of Fuzzy Sets		
2.1 Extension Principle for Fuzzy Sets		
2.2 Crisp and Fuzzy Relations – Binary Relations		
2.3 Fuzzy Relational Equations		
Unit 3		(10hrs.)
Operations on Fuzzy Sets		
3.1 Fuzzy Complements		
3.2 Fuzzy Union – fuzzy Intersection – Combination of Operations		
Unit 4		(10 hrs.)
Fuzzy Arithmetic		
4.1 Fuzzy Numbers		
4.2 Linguistic Variables		
4.3 Arithmetic Operation of Fuzzy Intervals		
4.4 Arithmetic Operation of Fuzzy Numbers		
4.5 Fuzzy Equations		

Unit 5**(11 hrs.)****Applications**

5.1 Concept of Fuzzy Logic

5.2 Fuzzy Controllers

5.3 Application of Fuzzy Logic to Engineering, Medicine, Industry and Electronics

TEXT BOOKS**UNITS : 1 - 4**

Klir George J. and Yuan Bo, Fuzzy Sets & Fuzzy Logic Theory and Applications, New Delhi : Prentice Hall India, 2009.

Chapter 1 Sections 1.3 – 1.5

Chapter 2 Sections 2.1, 2.3

Chapter 4 Sections 4.1 – 4.4, 4.6

Klir George J. and Folger Tina A., Fuzzy Sets, Uncertainty and Information, New Delhi : Prentice Hall India, 2004.

Chapter 2 Sections 2.2 – 2.5

Chapter 3 Sections 3.1, 3.2, 3.8

UNIT : 5

Klir George J. and Yuan Bo, *Fuzzy Sets & Fuzzy Logic Theory and Applications*, New Delhi : Prentice Hall India, 2009.

Terano Toshiro Asai Kiyoji, Sugeno Michio, *Applied Fuzzy Systems*, New York : A.P. Professional, 1994.

BOOKS FOR REFERENCE

Cengiz Kahraman, Estronge P.H, *Fuzzy applications in Industrial engineering*, Studies in Fuzziness and soft computing, Springer, 2006.

Huaguang Zhang, *Fuzzy modeling and Fuzzy control*, Control Engineering, Birkhauser, 2006.

John Harris, Nix Eileen, *An Introduction to Fuzzy Logic Applications*, Springer, 2010.

Lotfi A.Zadeh, *Fuzzy Sets and Their Applications to Cognitive and Decision Processes*, New York, Academic Press, 1975.

Michael Hanss, Deshmukh S.K, *Applied Fuzzy Arithmetic*, Springer, 2005.

WEB RESOURCES

John N. Mordeson, Premchand S. Nair, Fuzzy Mathematics: An Introduction for Engineers and Scientists, Second Edition, Physica-Verlag Heidelberg (2001) ISBN: 3790814202 | 324 pages | PDF | 6.6 MB. e – book

JOURNALS

Fuzzy Sets and Systems ISSN 0165-0114, Publisher: Elsevier - Netherlands

Iranian Journal of Fuzzy Systems ISSN 1735-0654, Publisher: University of Sistan and Baluchestan

Advances in Fuzzy Mathematics ISSN 0974-0201, Research India Publications

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

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Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

MECHANICS

CODE: 15MT/PE/ME14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce various principles in dynamical systems
- To teach the techniques involved in calculus of variations
- To formulate equations of motion using different principles

Unit 1 (10 hrs.)

Elementary Principles of Mechanics, Variational Principles and Lagrange's Equations

- 1.1 Mechanics of a Particle
- 1.2 Mechanics of a System of Particles – Constraints
- 1.3 D'Alembert's Principle and Lagrange's Equations
- 1.4 Simple Applications of the Lagrangian Formulation
- 1.5 Hamilton's Principle

Unit 2 (10 hrs.)

Calculus of Variations

- 2.1 Some Techniques of the Calculus of Variations
- 2.2 Derivation of Lagrange's Equations from Hamilton's Principle
- 2.3 Extension of Hamilton's Principle to Non-holonomic systems
- 2.4 Cyclic Coordinates
- 2.5 General Conservation Theorem Relating to Cyclic Coordinates

Unit 3 (12 hrs.)

The Kinematics and Equations of Motion of a Rigid Body

- 3.1 Independent Coordinates of a Rigid Body
- 3.2 Euler Angles – Euler's Theorem on the Motion of a Rigid Body
- 3.3 Rate of Change of a Vector
- 3.4 Coriolis Force
- 3.5 Angular Momentum and Kinetic Energy of Motion about a Point
- 3.6 Eigen Values of Inertia Tensor and Principal Axes Transformation
- 3.7 Euler's Equations of Motion

Unit 4 (10 hrs.)

The Hamilton Equations of Motion

4.1 Legendre Transformations and the Hamilton Equations of Motion

4.2 Routh's Procedure

4.3 Derivation of Hamilton's Equations from a Variational Principle

Unit 5 (10 hrs.)

Canonical Transformations

5.1 Equation of Canonical Transformations - Examples

5.2 Symplectic Approach to Canonical Transformations

TEXT BOOK

Goldstein H., *Classical Mechanics* (Reprint 2001), London: Addison – Wesley Publishing Company, 1980.

Chapter 1	Sections 1.1 to 1.4, 1.6.
Chapter 2	Sections 2.1 to 2.4, 2.6
Chapter 4	Sections 4.1, 4.4, 4.6, 4.9, 4.10.
Chapter 5	Sections 5.1,5.4,5.5.
Chapter 8	Sections 8.1, 8.3, 8.5, 8.6
Chapter 9	Sections 9.1 to 9.3

BOOKS FOR REFERENCE

Corben, H.C., Stehle Philip, *Classical Mechanics*, (II Edition), New York: Robert E. Krieger Publishing Co., 1960.

Greenwood Donald, T., *Classical Dynamics*, New Delhi: Prentice Hall of India, 1979.

Starzhinskii, V.M., *An Advanced Course of Theoretical Mechanics*, Moscow: MIR Publishers, 1982.

Synge John, L., Byron Griffith, A., *Principles of Mechanics*, (III Edition), New York: McGraw Hill Book Co., 1970.

Venkatachalapathy S.G., *Classical Mechanics*. Chennai: Margham Publications, 2006.

JOURNALS

[Journal of Fluid Mechanics](#) / Volume 356 / February 1998, pp 353- 379/[Effects of the Coriolis force on the stability of Stuart vortices](#)

[Journal of Applied Mathematics and Mechanics](#) / Canonical Transformations and the Hamilton-Jacobi Theorem in the Optimum Control Theory

WEB RESOURCES

<http://gsjournal.net/Science-Journals/ResearchPapersMechanicsElectrodynamics>
[Canonical Transformations in Quantum Mechanics/ scitation.aip.org](http://scitation.aip.org)

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit).

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

COMPLEX ANALYSIS

CODE: 15MT/PC/CA34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce a modern treatment to classical Complex analysis
- To develop clear thinking and analyzing capacity for research

Unit 1 (12 hrs.)

Complex Integration

- 1.1 Fundamental Theorems: Line Integrals as Functions of Arcs
- 1.2 Cauchy's Theorem for a Rectangle
- 1.3 Cauchy's Theorem in a Disk
- 1.4 Cauchy's Integral Formula: the Index of a Point with respect to a Closed Curve
- 1.5 The Integral Formula

Unit 2 (14 hrs.)

Complex Integration (continued)

- 2.1 General Form of Cauchy's Theorem: Chains and Cycles
- 2.2 Simple Connectivity
- 2.3 Homology
- 2.4 General Statement of Cauchy's Theorem
- 2.5 Proof of Cauchy's Theorem
- 2.6 Harmonic Functions: Definition and Basic Properties
- 2.7 The Mean Value Property
- 2.8 Poisson's Formula
- 2.9 Schwarz's Theorem
- 2.10 The Reflection Principle

Unit 3 (13 hrs.)

Series and Product Development

- 3.1 Partial Fractions and Factorization: Partial Fractions
- 3.2 Infinite Products
- 3.3 Canonical Products
- 3.4 Gamma Function
- 3.5 Entire Functions: Jensen's Formula
- 3.6 The Riemann Zeta Function: The Product Development

- 3.7 Extension of $\zeta(z)$ to the Whole Plane
- 3.8 The Functional Equation
- 3.9 The Zeros of the Zeta Function

Unit 4 **(14 hrs.)**

Series and Product Development (contd.)

- 4.1 Normal Families: Equicontinuity
- 4.2 Normality and Compactness
- 4.3 Arzela's Theorem
- 4.4 Families of Analytic Functions

Unit 5 **(12 hrs.)**

Conformal mapping

- 5.1 The Riemann Mapping Theorem: Statement and Proof
- 5.2 Boundary Behavior
- 5.3 Use of the Reflection Principle
- 5.4 Analytic Arcs
- 5.5 Conformal Mapping of Polygons: The Behavior at an Angle
- 5.6 The Schwarz Christoffel Formula
- 5.7 Mapping on a Rectangle
- 5.8 The Triangle Functions of Schwarz
- 5.9 Application to Fluid Dynamics: Fluid Flow in a Channel through a Slit
- 5.10 Application to Fluid Dynamics: Flow in a Channel with an Offset

TEXT BOOKS

Ahlfors, Lars V. *Complex Analysis*, 3rd ed. International Series in Pure and Applied Mathematics. New Delhi: McGraw Hill International Book Co., 1979.

- Chapter 4 Section 1: 1.3 – 1.5
- Section 2: 2.1, 2.2
- Section 4: 4.1– 4.5
- Section 6: 6.1 – 6.5
- Chapter 5 Section 2: 2.1 – 2.4
- Section 3: 3.1
- Section 4: 4.1 – 4.4
- Section 5: 5.1 – 5.4
- Chapter 6 Section 1: 1.1 – 1.4
- Section 2: 2.1 – 2.4.

Churchill R.V., and J.W. Brown. *Complex Variables and Applications*. 5th edition. New York: McGraw Hill Publishing Company, 1990.

- Chapter 10 Sections 92 - 93

BOOKS FOR REFERENCE

Conway John B., *Functions of one complex variable*, New Delhi. : Narosa Publishing House, 1978.

John M. Howie, *Complex Analysis*, Springer-Verlag, London Ltd., 2003.

Thoedre W. Gamelin, *Complex Analysis*, Springer-Verlag, New York INC, 2001.

RudinWalter, *Real and Complex Analysis* (II Edition), New Delhi : Tata McGraw Hill Publishing Co., 1974.

WEB RESOURCES

<http://www.math.ucla.edu/~tao/java/Ftoc.html>

<http://fermi.la.asu.edu/ccli/applets/confmap/conform.html>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A : $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE : BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

FLUID DYNAMICS

CODE : 15MT/PC/FD34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To introduce the concept of fluids in motion, equation of motion of a fluid
- To study two and three dimensional viscous flow

Unit 1 (12 hrs.)

The Kinematics of Fluids in Motion

- 1.1 Real Fluids and Ideal fluids – Velocity of a Fluid at a Point
- 1.2 Stream Lines and Path Lines – Velocity Potential – Vorticity
- 1.3 Local and Particle Rates of Change
- 1.4 Equation of Continuity
- 1.5 Acceleration of a Fluid – Conditions at a Rigid Boundary

Unit 2 (14 hrs.)

Equations of Motion of a Fluid

- 2.1 Pressure at a Point in a Fluid at Rest
- 2.2 Pressure at a Point in a Moving Fluid – Conditions at a Boundary of Two Inviscid Immiscible Fluids
- 2.3 Euler's Equation of Motion – Bernoulli's Equation
- 2.4 Steady Motion under Conservative Body Forces
- 2.5 Kelvin's Circulation Theorem

Unit 3 (12 hrs.)

Some Two and Three – Dimensional Flows

- 3.1 Some flows involving Axial Symmetry - Irrotational Stationary Sphere in a Uniform Stream – Sphere moving with constant velocity in Liquid which is otherwise at rest
- 3.2 Sources, Sinks and Doublets
- 3.3 Axi Symmetric Flows - Stoke's Stream Function Special Forms of the Stream Function for Axi-symmetric Irrotational Motions
- 3.4 Meaning of Two-Dimensional flows

Unit 4 (12 hrs.)

Complex Velocity Potential

- 4.1 Complex Velocity Potential for Standard Two Dimensional Flows
- 4.2 Milni – Thomson Circle theorem – Extension of the Circle Theorem
- 4.3 Theorem of Blasius

Unit 5**(15 hrs.)****Viscous Flow**

5.1 Stress Components in a Real Fluid – Coefficient of Viscosity and Laminar Flow

5.2 Navier – Stokes Equation of Motion of a Viscous Fluid

5.3 Some Solvable Problems in Viscous Flow

5.4 Steady Viscous Flow in Tubes of Uniform Cross-section

TEXT BOOK

Chorlton.F. *Text book of Fluid Dynamics*. 1st ed. New Delhi: B.S. Publishers & Distributors, Shadara, 1985.

Chapter 2	Sections 2.1 - 2.10;
Chapter 3	Sections 3.1 - 3.7, 3.9, 3.12;
Chapter 4	Sections 4.1, 4.2, 4.5;
Chapter 5	Sections 5.1, 5.4 - 5.6, 5.8, 5.9;
Chapter 8	Sections 8.1, 8.8 - 8.11.

BOOKS FOR REFERENCE

Duncan W.J., Thom. A.S. and Young A.D., *Mechanics of Fluids*. Great Britain : The English Language book society, 1975.

Joseph H. Spurk, *Fluid Mechanics: Problems and Solutions*. Springer-Verlag, 2003.

Thomson Milne L.M., *Theoretical Hydro Dynamics*. (IV Edition), New York. : Macmillan and Co., 1960.

JOURNALS

[Fluid Dynamics - Springer - Springer Science+Business Media/ link.springer.com](http://www.springer.com/physics/classical+continuum+physics/)
[Open Journal of Fluid Dynamics_Engineering | Physics .../www.scirp.org/journal](http://www.scirp.org/journal)

WEB RESOURCES

<http://www.springer.com/physics/classical+continuum+physics/>
http://www.efluids.com/efluids/pages/j_midpages/inter_journal_of_fluid.htm

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 Mins.**Section A: $2 \times 2 = 4$ (Two questions to be set)Section B: $2 \times 6 = 12$ (Three questions to be set)Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:**Total Marks: 100****Duration: 3 Hours**

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

GRAPH THEORY

CODE: 15MT/PC/GT34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To give a broader view of concepts in basic graph theory
- To emphasize on computational aspect of graph theory
- To introduce Networking and to study some networks and its topological properties

Unit 1 (10 hrs.)

Graphs and Subgraphs

1.1 Graphs and Simple Graphs – Graph Isomorphism, Incidence and Adjacency
Matrices, Subgraphs, Vertex Degrees, Paths and Connection, Cycles

1.2 Shortest Path Problem

1.3 Dijkstras Algorithm

Trees

1.4 Trees

1.5 Cut Edges and Bonds

1.6 Cut Vertices

Unit 2 (16 hrs.)

Connectivity

2.1 Connectivity

Matchings

2.2 Matchings

2.3 Matchings and Coverings in Bipartite Graphs

Independent sets

2.4 Independent Sets

Domination number

2.5 The Domination Number

Unit 3 (15 hrs.)

Vertex Colourings

3.1 Chromatic Number

3.2 Brooks' Theorem

3.3 Chromatic Polynomials

Edge Colorings

- 3.4 Edge Chromatic Number
- 3.5 Vizing's Theorem
- 3.6 The Timetabling Problem

Unit 4

(14 hrs.)

Planar Graphs

- 4.1 Plane and Planar Graphs
- 4.2 Euler's Formula
- 4.3 Kuratowski's Theorem
- 4.4 Five-Colour Theorem

Directed Graphs

- 4.5 Directed Graphs
- 4.6 Directed Paths

Unit 5

(10 hrs.)

Interconnection Networks and Graphs

- 5.1 Graphs and Interconnection Networks- Interconnection Networks, Adjacency Matrices and other Concepts, Trees and k -ary Trees, Embedding of Graphs, Diameter of Graphs

- 5.2 Basic Principles of Network Design

Well-known Topological Structures of Interconnection Networks

- 5.3 Hypercube Networks
- 5.4 De Bruijn Networks
- 5.5 Kautz Networks
- 5.6 Circulant Networks

TEXT BOOKS

Bondy J.A., Murty U.S.R. *Graph Theory with Application*. London: The Macmillan Press Ltd., 1982.

Chapter 1	Sections 1.1 to 1.8
Chapter 2	Sections 2.1 to 2.3
Chapter 3	Sections 3.1
Chapter 4	Sections 4.1 to 4.2
Chapter 5	Sections 5.1, 5.2
Chapter 6	Sections 6.1 – 6.3
Chapter 7	Section 7.1
Chapter 8	Sections 8.1, 8.2, 8.4
Chapter 9	Sections 9.1, 9.3, 9.5 (Theorem 9.10 statement only), 9.6 (Omit Theorem 9.12)
Chapter 10	Sections 10.1, 10.2

Parthasarathy K.R., *Basic Graph Theory*. New Delhi: Tata McGraw-Hill Publishing Company Limited. 1994.

Chapter 10 Section 10.4.2

Xu Junming, *Topological Structure and Analysis of Interconnection Networks*. U.S.A.: Kluwer Academic Publishers, 2001.

Chapter 1 Sections 1.1.2, 1.2.4, 1.3.1, 1.3.2, 1.4.1 (definitions only), 1.6.1 & 1.6.2

Chapter 3 Sections 3.1.1 & 3.1.2, 3.2.1, 3.2.6, 3.3.1, 3.4.5 (Theorem 3.4.12 statement only; Omit Theorems 3.2.1, 3.2.14, 3.3.1, 3.4.13)

BOOKS FOR REFERENCE

Aldous Joan M. & Robin J. Wilson, *Graphs and Applications An Introductory Approach*. New York: Springer International Edition, 2007.

Arumugam S. and Ramachandran S. *Invitation to Graph Theory*. Chennai: Scitech Publications India Pvt. Ltd., Reprint 2013.

Balakrishnan R, Sethuraman G, Wilson R.J., *Graph Theory and it's Applications*. New Delhi: Narosa Publishing House, 2004.

Diestel Reinhard. *Graph Theory*. New York: Springer, 2006.

Geir Agarnarsson, Raymond Greenlaw, *Graph Theory: Modeling, Applications and Algorithms*. New Delhi: Pearson Education, 2012.

Thakur Prasad, *A First Course in Graph Theory*. New Delhi: Anmol Publications Pvt. Ltd., 2014.

JOURNALS

Journal of Graph Theory

Arcs Combinatoria

Journal of Combinatorics

SIAM Journal on Discrete Mathematics

Information Processing Letters

Discrete Mathematics

Journal of Discrete Algorithms

Graphs and Combinatorics

Advances in Computational Mathematics

WEB RESOURCES

<http://world.mathigon.org/GraphTheory>

<http://press.princeton.edu/titles/10314.html>

<http://www.open-graphtheory.org>

<http://www.math.nsysu.edu.tw/~zhu/papers.html>

<http://www.worldscientific.com/worldscinet/join>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

TOPOLOGY

CODE : 15MT/PC/TO34

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce the structural study of topology
- To introduce the concepts of compactness, connectedness and separation axioms in a topological space

Unit 1 (15 hrs.)

Topological Spaces

- 1.1 Topological Spaces
- 1.2 Basis for a Topology
- 1.3 The Product Topology on $X \times Y$
- 1.4 The Subspace Topology
- 1.5 Closed Sets and Limit Points

Unit 2 (12 hrs.)

Connectedness

- 2.1 Connected Spaces
- 2.2 Connected Subspaces of the Real Line
- 2.3 Components and Local Connectedness

Unit 3 (12 hrs.)

Compactness

- 3.1 Compact Spaces
- 3.2 Compact Subspaces of the Real Line
- 3.3 Limit Point Compactness

Unit 4 (13 hrs.)

Countability and Separation Axiom

- 4.1 The Countability Axioms
- 4.2 The Separation Axioms
- 4.3 Normal Spaces
- 4.4 The Urysohn Lemma
- 4.5 The Urysohn Metrization Theorem
- 4.6 The Tietz Extension Theorem

Unit 5**(13 hrs.)****Continuous Functions**

5.1 Continuous Functions

5.2 The Product Topology

5.3 Tychonoff Theorem

TEXT BOOK

Munkres James R. *Topology*, New Delhi : Prentice Hall of India Private Limited, Second ed. 2000

Chapter 2 Sections 12,13,15 – 19

Chapter 3 Sections 23 – 28

Chapter 4 Sections 30 – 35

Chapter 5 Section 37

BOOKS FOR REFERENCE

Kumaresan S , Aaker D.A, *Topology of Metric Spaces*, Ed. 2 New Delhi: Narosa Publishing House, 2005.

Simmons, G.F. *Introduction to Topology and Modern Analysis*. New-York : McGraw Hill Book Co. Inc., (6th Reprint 2006), 1963.

Viro O Ya , Others, *Elementary Topology*, American Mathematical Society, 2008.

Wayne C Patty, *Foundations of Topology*, Ed. 2, New Delhi : Jones & Bartlett Learning, New Delhi, 2010.

WEB RESOURCES

http://math.nie.edu.sg/wkho/Talks_files/topappl.pdf

<http://www.msc.uky.edu/droyster/courses/fall99/math4181/classnotes/notes5.pdf>

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 Mins.**Section A: $2 \times 2 = 4$ (Two questions to be set)Section B: $2 \times 6 = 12$ (Three questions to be set)Section C: $2 \times 17 = 34$ (Three questions to be set)**Third Component :**

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A : $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

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Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS

(Effective from the academic year 2015 – 2016)

SUMMER INTERNSHIP

CODE : 15MT/PN/SI 32

CREDIT : 2

OBJECTIVE OF THE COURSE

- To provide opportunity to gain experience in various fields

FIELD WORK : (3 Weeks)

Summer Internship: a minimum period of three weeks during the summer holidays between the second and third semesters

EVALUATION:

SUMMER INTERNSHIP : 100 Marks

(Mathematical work: 40 + Presentation: 40 + Report: 20)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

FUNCTIONAL ANALYSIS

CODE:15MT/PC/FA44

CREDIT: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce an abstract approach to analysis
- To highlight the interplay between algebraic structures and distance structures
- To introduce Operator theory and its application to finite dimensional Spectral Theory

Unit 1 (15 hrs.)

Fundamentals of Normed Spaces

- 1.1 Normed Spaces
- 1.2 Continuity of Linear Maps
- 1.3 Hahn-Banach Theorems
- 1.4 Banach Spaces

Unit 2 (15 hrs.)

Bounded Linear Maps on Banach Spaces

- 2.1 Uniform Boundedness Principle
- 2.2 Closed Graph and Open Mapping Theorems
- 2.3 Bounded Inverse Theorems
- 2.4 Spectrum of a Bounded Operator

Unit 3 (10 hrs.)

Spaces of Bounded Linear Functionals

- 3.1 Duals and Transposes
- 3.2 Weak and Weak * Convergence
- 3.3 Reflexivity

Unit 4 (15 hrs.)

Geometry of Hilbert Spaces

- 4.1 Inner Product Spaces
- 4.2 Orthonormal Sets
- 4.3 Projection and Riesz Representation Theorems

Unit 5**(10 hrs.)****Bounded Operators on Hilbert Spaces**

5.1 Bounded Operators and Adjoints

5.2 Normal, Unitary and Self Adjoint Operators

TEXT BOOK

Balmohan V. Limaye, *Functional Analysis*, New Delhi: New Age International(P) limited, 1996, Third Edition 2014.

Chapter II : Sec. 5 – 8 (omit Pages 117 -124; 132 – 134)

Chapter III : Sec. 9 – 12 (omit Pages 144 – 161; 203 – 215)

Chapter IV : Sec. 13 – 16 (omit Pages 226 – 260; 273 – 280; 288 - 301)

Chapter VI : Sec. 21, 22, 24

Chapter VII: Sec. 25 – 26

BOOKS FOR REFERENCE

Chandrasekhara K Rao, Ander Paul, *Functional Analysis*, New Delhi: Narosa Publishing House, 2006.

Kesavan S , Aaker D.A, Sharfuddin Ahmad, *Functional Analysis*, Hindustan Book Agency, 2009.

Nair Thamban, Abrams Charles, *Functional analysis – A first course*, Prentice-hall, 2002.

Siddiqi,A.H , Manchanda P, *Introduction to Functional Analysis with Application*, Anamaya, 2006.

WEB RESOURCES

http://www.mth.kcl.ac.uk/staff/eb_davies/printmaster.pdf

http://math.univ-lyon1.fr/~attal/Op_and_Spect.pdf

PATTERN OF EVALUATION**Continuous Assessment:****Total Marks: 50****Duration: 90 Mins.**Section A: $2 \times 2 = 4$ (Two questions to be set)Section B: $2 \times 6 = 12$ (Three questions to be set)Section C: $2 \times 17 = 34$ (Three questions to be set)**Third Component :**

List of Evaluation Modes:

Seminars

Quiz
Open Book Tests
Group Discussion
Assignments
Project
Theorem Writing Technique
Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A : $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit).

Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

CALCULUS OF VARIATION AND INTEGRAL EQUATIONS

CODE: 15MT/PC/CI44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce methods for finding the extrema of a functional defined over a class of functions
- To formulate Integral Equations of boundary value problems with more general boundary conditions

Unit 1 (13 hrs.)

Variational Problems with Fixed Boundaries

- 1.1 The Concept of Variation and its Properties
- 1.2 Euler's Equation
- 1.3 Variational Problems for Functionals of the Form
- 1.4 Functionals Dependent on Higher Order Derivatives
- 1.5 Functional Dependent on Functions of Several Independent Variables
- 1.6 Variational Problems in Parametric Form

Unit 2 (13 hrs.)

Variational Problems with Moving Boundaries

- 2.1 Variational Problem with a Movable Boundary for a Functional Dependent on Two Functions
- 2.2 One- Sided Variations
- 2.3 Reflection and Refraction of Extremals – Diffraction of Light Rays

Unit 3 (13 hrs.)

Fredholm Integral Equations

- 3.1 Introduction - Definition
- 3.2 Abel's Problem
- 3.3 Linear and Non-linear Integral Equations
- 3.4 Fredholm Integral Equations
- 3.5 Volterra Integral Equations
- 3.6 Special Kinds of Kernals
- 3.7 Eigen Values and Eigen Functions

Unit 4 (13 hrs.)
Conversion of Ordinary Differential Equations into Integral Equations
4.1 Initial Value Problems
4.2 Methods of Converting an Initial Value Problem into a Volterra Integral Equation
4.3 Boundary Value Problems – Examples
4.4 Methods of Converting a Boundary Value Problem into a Fredholm Integral Equation

Unit 5 (13 hrs.)
Homogeneous Fredholm Integral Equations
5.1 Characteristic Values – Characteristic Functions
5.2 Solution of Homogeneous Fredholm Integral Equations of the Second Kind with Separable Kernels

TEXT BOOKS

Gupta A.S., *Calculus of Variations with Applications*, Prentice Hall of India Pvt., Ltd., New Delhi, 1997

Chapter 1	Sections 1.1 – 1.6
Chapter 2	Sections 2.1 – 2.5

Raisinghania.M.D., *Integral Equations and Boundary Value Problems*, S. Chand & Co., New Delhi, 2007

Chapter 1	Sections 1.1 – 1.12
Chapter 2	Sections 2.1 – 2.6
Chapter 3	Sections 3.1 – 3.3

BOOKS FOR REFERENCE

Gupta.S, *Calculus of Variations with Applications*, PHI, New Delhi, 2005.

Ram P. Kanwal, *Linear Integral Equations, Theory and Techniques*. Academic Press, New York, 2012.

Sudir K. Pundir and Rimple Pundir, *Integral Equations and Boundary Value Problems*. Pragati Prakasam, Meerut, 2005.

JOURNALS

Journal of Calculus of Variation- An open access Journal

Calculus of Variations and Partial Differential Equations, ISSN: 0944-2669 (Print) **1432-0835 (Online)**

WEB RESOURCES

www.degruyter.com/view/j/acv

<http://www.springer.com/mathematics/analysis/journal>

<http://journals.academia.edu/AdvancesInCalculusOfVariations>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit).

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit).

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

DIFFERENTIAL GEOMETRY

CODE : 15MT/PC/DG44

CREDIT: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To introduce advanced concepts in differential geometry of space curves
- To introduce the fundamental forms
- To lay the foundation for study of surfaces leading to advanced courses in geometry

Unit 1 (14 hrs.)

Curves in the Plane and in Space

- 1.1 Curve, Arc-Length, Re-parameterization
- 1.2 Curvature, Plane Curves, Space Curves

Unit 2 (12 hrs.)

Surfaces in Three Dimensions

- 2.1 Surface, Smooth Surface
- 2.2 Tangents, Normal and Orientability, Examples of Surfaces

Unit 3 (15 hrs.)

The First Fundamental Form

- 3.1 Lengths of Curves on Surfaces
- 3.2 Isometrics of Surfaces
- 3.3 Conformal Mappings of Surfaces
- 3.4 Surface Area

Unit 4 (12 hrs.)

Curvature of Surfaces

- 4.1 The Second Fundamental Form
- 4.2 The Curvatures of Curves on a Surface
- 4.3 The Normal and Principle Curvatures

Unit 5 (12 hrs.)

Gaussian Curvature

- 5.1 The Gaussian and Mean Curvatures
- 5.2 The Pseudosphere
- 5.3 Flat Surfaces

Geodesics

5.4 Definition and Basic Properties
5.5 Geodesic Equation
Gauss's Theorema Egregium
5.6 Gauss's Remarkable Theorem

TEXT BOOK

Pressley Andrew, *Elementary Differential Geometry*, London: Springer – Verlag, 2001.

Chapter 1 : Sec. 1.1 – 1.3
Chapter 2 : Sec. 2.1 – 2.3
Chapter 4 : Sec. 4.1 – 4.4
Chapter 5 : Sec. 5.1 – 5.4
Chapter 6 : Sec. 6.1 – 6.3
Chapter 7 : Sec. 7.1 – 7.3
Chapter 8 : Sec. 8.1 – 8.2
Chapter 10 : Sec. 10.1

BOOKS FOR REFERENCE

Ethan D. Bloch, *A First Course in Geometric Topology and Differential Geometry*,
Boston: Birkhäuser, 1997.

Sruik, Dirk J., *Lectures on Classical Differential Geometry*, II Edition, London: Addison
– Wisely Publishing Co., 1961.

Wardle, K.L., *Differential Geometry*, London: Routledge and Kegan Paul, 1965.

Weatherburn, C.E., *Differential Geometry of Three Dimensions*, London: The Syndics of
the Cambridge University Press, 1971.

Willmore, T.J., *An Introduction to Differential Geometry*, London : Oxford University
Press, 1972.

JOURNAL

Differential Geometry and Its Applications

WEB RESOURCE

<http://dga.math.muni.cz/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination Duration:

Total Marks: 100

Duration: 3 Hours

Section A : $5 \times 2 = 10$ (One question to be set from each unit)

Section B : $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE : BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

DISSERTATION

CODE : 15MT/PC/DI45

CREDITS : 5

Preparation of Dissertation

The Dissertation shall contain at least 35 pages and shall be typed with double spacing. The format for the thesis is as follows:

1. Cover page shall contain
 - a) Title of the dissertation
 - b) Dissertation submitted at the major level for the M.Sc degree course in the IV semester.
 - c) Name of the Candidate
 - d) Department of Mathematics
Stella Maris College (Autonomous), Chennai – 86
 - e) Month, Year
2. The dissertation shall contain
 - a) Contents page
 - b) i. Certificate page
ii. Acknowledgement page
 - c) At least 3 Chapters including an introductory chapter (comprising motivation, basic concepts needed / used in the thesis and outline of the thesis)
 - d) Conclusions / interpretations arrived at may be given at the end of each problem / each chapter concerned.
 - e) List of figures / list of abbreviations (if needed) shall be given as an appendix
 - f) Bibliography shall be given in alphabetical / chronological order at the end.
3. Each candidate may prepare 3 copies of the thesis using a Scientific Word or Word, one copy for her and submit 2 copies to the Head of the department 15 days before the commencement of the fourth semester examination.
4. The candidate may be advised that the dissertation will be valued and given credit on the criteria of
 - a) Motivation towards the chosen area / formulation of the problem
 - b) Methodology, Analysis, logic and reasoning
 - c) Capacity to interpret the results obtained
5. The Controller of Examination is requested to arrange for the valuation of the Dissertation as well as the conduct of the Viva – Voce at the college where the candidates take examinations, within two weeks of the last date of examination for M.Sc. Degree. The panel of examiners will consist of an external examiner and the guide. The guidelines for the Viva-Voce examiners would be that a) They

will satisfy themselves that this is a work of the candidate as certified by the department b) The thesis is in the given form and c) The candidate has clear understanding of the concepts, discussed in the thesis.

The Department should certify as follows :

This is to certify that the dissertation in the broad area _____ titled _____ is submitted by _____ - at the major level for the degree of Master of Science (Mathematics) during the year _____

sd/
Head of the Department

sd/
Guide

6. A) Guidelines for evaluation

The maximum mark for the dissertation is 75 divided into four components

i.	Style, format and neatness in presentation	10
ii	Chapterisation, logic and reasoning	10
iii	Methodology – Analysis and interpretation	30
iv	Content	25

B) There will be double valuation for the dissertation by the guide and an External examiner who will conduct the viva – voce. The norms for evaluation will be same as applicable for theory papers.

PATTERN OF EVALUATION:

External Testing :

Dissertation : 75 marks

Viva : 25 marks

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE: BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015-2016)

MATHEMATICAL MODELING

CODE: 15MT/PE/MM14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To translate real life situations into mathematical models
- To solve problems using mathematical tools

Unit 1 **(10 hrs.)**

Traffic Flow Model

- 1.1 Freeway Traffic
- 1.2 Macroscopic Traffic Flow Models
- 1.3 Conservation of Cars
- 1.4 Traffic Density
- 1.5 Microscopic Traffic Flow Model
- 1.6 Linear Car following Model

Unit 2 **(10 hrs.)**

Image Compression: Iterated functions

- 2.1 Introduction
- 2.2 Affine Transformation in the Plane
- 2.3 Iterated Function Systems
- 2.4 Iterated Contractions and Fixed Points
- 2.5 The Hausdorff Distance
- 2.6 Fractal Dimension
- 2.7 Photographs as Attractions

Unit 3 **(12 hrs.)**

The DNA computer

- 3.1 Introduction
- 3.2 Adlemans Hamiltonian Path Problems
- 3.3 Turing Machines and Recursive Functions
- 3.4 Turing Machines and Insertion Deletion Systems
- 3.5 NP – Complete Problems
- 3.6 DNA Computers

Unit 4 **(10 hrs.)**

Nonlinear Difference Equations

- 4.1 Recognizing a Nonlinear Difference Equation

- 4.2 Steady State Stability and Critical Parameters
- 4.3 The Logistic Difference Equation
- 4.4 Beyond $r = 3$

Unit 5 **(10 hrs.)**

Application of nonlinear difference equation to population

- 5.1 Density Dependence in Single Species Population
- 5.2 Two Species Iterations: Host – Parasite Systems
- 5.3 The Nicholson – Bailey Model
- 5.4 Modifications of the NB Model

TEXT BOOKS

Clive L. Dym, *Principles of Mathematical Modeling*, Elsevier, India Pvt Ltd, 2006.

Leah Edelstein - Keshet, *Mathematical Models in Biology*, SIAM, Random House, New York, 2005.

Christiane Rousseau and Yvan Sain - Aubin, *Mathematics and Technology*, Translator: Chris Hamilton, Springer science and Business media, L.L.C, 2008.

BOOKS FOR REFERENCE

Gershenfeld Neil, *The Nature of Mathematical Modeling*, New York: Cambridge University Press, 1999.

Kapur, J. N., *Mathematical Modeling*, New York: John Wiley & Sons, 1988.

Temam Roger M., Miranville Alain M., *Mathematical Modeling in Continuum Mechanics*, second edition, New York: Cambridge University Press, 2005.

JOURNALS

Journal of Mathematical Modelling and Algorithms in Operations Research
Mathematical Modelling of Natural Phenomena
Applied Mathematical Modelling Mathematical Modelling and Analysis
Journal of Mathematical Modelling

WEB RESOURCES

<http://libgen.org/>

<http://www.sfu.ca/~vdabbagh/Chap1-modeling.pdf>

http://www.maths.bris.ac.uk/~madjl/course_text.pdf

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
M.Sc. DEGREE : BRANCH I – MATHEMATICS

SYLLABUS
(Effective from the academic year 2015 – 2016)

PROBABILITY AND RANDOM PROCESS

CODE: 15MT/PE/PR14

CREDIT : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To introduce the different techniques of stochastic process and Markov Chains
- To introduce standard concepts and methods of stochastic modeling
- To provide new perspective, methodology, models and intuition and aid in other mathematical and statistical studies

Unit 1 (12hrs.)

Random Variables

1.1 Definition, Discrete, Continuous - Distribution Function, p.d.f, p.m.f.

1.2 Expectation, Moments

Special probability distributions

1.3 Binomial, Geometric, Poisson, Uniform

1.4 Exponential, Erlang, Normal

Unit 2 (12hrs.)

Multiple Random Variables

2.1 Joint c.d.f.- Properties-Conditional Distributions

2.3 Conditional Mean - Covariance - Correlation Function

Unit 3 (12hrs.)

Introduction to Random Processes

3.1 Definition, Classification, Characterizing a Random Process

3.2 Cross- correlation, Cross-covariance Functions

3.3 Stationary Random Process- Ergodic Process

3.4 Power Spectral Density- Discrete

3.5 Time Random Process

Unit 4 (12hrs.)

Models of Random Processes

4.1 Bernoulli Process - Random Walk

4.2 Gaussian Process - Poisson Process

Unit 5

(4hrs.)

Markov Process

5.1 Discrete Time Markov Chain

5.2 Continuous Time Markov Chain

TEXT BOOK

Oliver, C Ibe. *Fundamentals of Applied Probability and Random Processes*. Elsevier First Indian Reprint 2007

Chapter 2.

Chapter 3: 3.1 to 3.4

Chapter 4: 4.3, 4.4, 4.7 to 4.11

Chapter 5: 5.1 to 5.7

Chapter 8

Chapter 10

BOOKS FOR REFERENCE

Basu A.K., *Introduction to Stochastic Processes*, Narosa Publishing House, New Delhi, 2003.

Karlin, S., and H.M. Taylor. *A First Course in Stochastic Processes*, 2nd ed., New York: Academic Press, 1975.

Medhi, J. *Stochastic Process*, New York: Wiley Eastern Limited, 1984.

Resnick, Sidney I. *Adventures in Stochastic Processes*, Boston: Birkhauser, 2002.

Taylor H.W., and S. Karlin. *An Introduction to Stochastic Modeling*, 3rd ed., New York: Academic Press, 1998.

JOURNAL

An International Journal of Probability and Stochastic Processes

Aditi Journal of Probability Theory and Stochastic Processes

AStA Advances in Statistical Analysis

Stochastic Analysis and Applications

ESAIM: Probability and Statistics

WEB RESOURCES

<http://www.springer.com/statistics/journal/10182>

<http://www.springer.com/statistics/journal/10463>

<http://www.imstat.org/aos/>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A: $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B: $5 \times 6 = 30$ (Seven questions to be set without omitting any unit)

Section C: $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
Post Graduate Elective Course Offered by Department of Mathematics to students for
M.A., M.Com. & M.Sc. Degree Programme

SYLLABUS
(Effective from the academic year 2015 -2016)

FORMAL LANGUAGES AND AUTOMATA THEORY

CODE: 15MT/PE/FL24

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To introduce basic concepts of graph theory, formal languages and automata theory
- To enhance compiling techniques and expose to computing device

Unit 1 (14 hrs.)

Graph Theory

- 1.1 Introduction to Graph Theory, Definition of a Graph and Examples
- 1.2 Degrees and Subgraphs
- 1.3 Isomorphism of Graphs
- 1.4 Matrix Representation of a Graph
- 1.5 Walks, Trails and Paths
- 1.6 Connectedness and Components (concepts only)
- 1.7 Characterisation of Trees
- 1.8 Connectivity of a Graph
- 1.9 Eulerian Graphs (concepts only)
- 1.10 Hamiltonian Graphs (concepts only)

Unit 2 (10 hrs.)

Automata Theory

- 2.1 Finite Automata (FA) – Introduction and Definition
- 2.2 Representation of Finite Automaton
- 2.3 Acceptability of a String by a Finite Automaton
- 2.4 Language accepted by a Finite Automaton

Unit 3 (10 hrs.)

Automata Theory (contd.)

- 3.1 Non-deterministic Finite Automata (NFA)
- 3.2 Acceptability of a String by NFA
- 3.3 Equivalence of FA and NFA (concept only)
- 3.4 Procedure for finding an FA equivalent to a given NFA
- 3.5 Properties of Regular Sets (concepts only)

Unit 4 (12 hrs.)

Finite State Machines

- 4.1 Finite-state Machines
- 4.2 The Monoid of a Finite-State Machine
- 4.3 The Machine of a Monoid

Formal Languages

- 4.4 Phase-Structure Grammars
- 4.5 Chomsky Hierarchy of Languages
- 4.6 Finite Automata and Regular Languages
- 4.7 Derivation Trees for Content-Free Grammars
- 4.8 Normal Forms for Content free Grammar (concepts only)

Unit 5 (6 hrs.)

Project

- 5.1 Application of Finite Automata and Formal Language
- 5.2 Design of Vending Machine
- 5.3 Document Language Design
- 5.4 Cryptography
- 5.5 DNA Computing

TEXT BOOKS

Arumugam S. and Ramachandran S., *Invitation to Graph Theory*, Chennai: Scitech Publications (India) Pvt. Ltd., Reprint December 2013.

- Chapter 1 Sec. 1.1, 1.2
- Chapter 2 Sec. 2.1 – 2.4, 2.8
- Chapter 4 Sec. 4.1, 4.2, 4.4
- Chapter 5 Sec. 5.1, 5.2
- Chapter 6 Sec. 6.1

Venkataraman M.K., Sridharan N., and Chandrasekaran N., *Discrete Mathematics*, Chennai: The National Publishing Company, Reprint 2007.

- Chapter 12 Sec. 1 – 11, 13 – 20

BOOKS FOR REFERENCE

Behera, Nayak and Pallnayak, *Formal Languages and Automata Theory*, Vikas Publication, New Delhi, 2014.

Kamala Krithivasan and Rama. R., *Introduction to Formal Languages, Automata Theory and Computation*, Pearson Publishers, Chennai, 2009.

JOURNALS

- Formal Languages and Automata Theory
- Journal of Graph Theory
- Discrete Applied Mathematics
- Information Processing Letters

WEB RESOURCES

<http://www.iitg.ernet.in/dgoswami/Flat-Notes.pdf>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 Hours

Section A : $5 \times 2 = 10$ (Five questions to be set, selecting one question per unit)

Section B : $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**Post Graduate Elective Course Offered by Department of Mathematics to students for
M. A. / M. Sc. / M.Com. Degree Programmes**

SYLLABUS

(Effective from the academic year 2015 – 2016)

STATISTICS FOR RESEARCH

CODE : 15MT/PE/SR34

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

ELIGIBILITY CRITERION

Offered to those who have not studied Statistics in the under graduate programme in the major or allied level

OBJECTIVES OF THE COURSE

- To understand and learn research techniques and methodologies
- To acquire basic skills for designing and implementing research projects

Unit 1 (10 hrs.)

Sampling Design

- 1.1 Implications of a Sample
- 1.2 Characteristics of a Good Sampling Design
- 1.3 Different Types of Sampling Designs
- 1.4 Probability and non-Probability Sampling - Sampling Error
- 1.5 Advantages and Disadvantages of Sampling

Unit 2 (10 hrs.)

Descriptive Statistics

- 2.1 Methods of Data Collection
- 2.2 Processing and Analysis of Data
- 2.3 Frequency Distribution
- 2.4 Measures of Central Tendency

Unit 3 (10 hrs.)

Descriptive Statistics

- 3.1 Measures of Dispersion
- 3.2 Normal Distribution
- 3.3 Graphical Representation

Unit 4 (10 hrs.)

Interval Estimation

- 4.1 Interval Estimation
- 4.2 Concept of Setting Confidence Intervals to Population Parameters

4.3 Confidence Interval for Mean, Difference in Means, Variance, Ratio of Variances based on Normal, t , χ^2 and F Distributions - Simple Problems

Unit 5

(12 hrs.)

Tests of Significance

5.1 Definitions of Statistical Hypothesis - Null and Alternate Hypothesis – Critical Region – Two Types of Errors – Size and Power of a Test - Level of Significance

5.2 Tests of Significance for Large Samples based on Normal, t , χ^2 and F Distributions with regard to Mean, Variance and Coefficient of Correlation

5.3 Tests of Significance for Small Samples based on Normal, t , χ^2 and F Distributions with regard to Mean, Variance and Coefficient of Correlation

5.4 χ^2 test of Goodness of Fit and Independence of Two Attributes – Simple Problems

TEXT BOOK

Arora P.N and Arora S., *Statistics for Management*, New Delhi: S. Chand & Company Ltd, 2008.

BOOKS FOR REFERENCE

Vital P.R. *Mathematical Statistics*, Chennai : Margam Publications, 2002.

Gupta, S.C. and V.K. Kapoor. *Fundamentals of Mathematical Statistics*, New Delhi: Sultan Chand & Sons, 1979.

Arumugam, S. and Issac. *Statistics*. Palayamkottai : New Gamma Publishing House, 1999.

Kapur J. N. and H.C. Saxena. *Mathematical Statistics*. New Delhi : S. Chand & Co., 1976.

Mood A.M., F.A. Graybill and D.C.Boes. *Introduction of Theory of Statistics*, London: Mc Graw Hill Inc., 1963.

Pillai R.S.N., and V. Bagavathi. *Statistics*. New Delhi : S.Chand Company Ltd., 2000.

Subramaniam N. *Probability and Statistics*. Erode : SCM Publisher, 2005.

Richard I. Levin and David S. Rubin. *Statistics For Management*. New Delhi : Prentice Hall of India Private Ltd., 2000.

JOURNALS

The Annals of Statistics

Journal of Computational and Graphical Statistics

WEB RESOURCES

<http://projecteuclid.org/euclid.aos>

<http://www.tandfonline.com/toc/ucgs20/current#.VO6PrCcas6Yk>

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins.

Section A: $2 \times 2 = 4$ (Two questions to be set)

Section B: $2 \times 6 = 12$ (Three questions to be set)

Section C: $2 \times 17 = 34$ (Three questions to be set)

Third Component :

List of Evaluation Modes:

Seminars

Quiz

Open Book Tests

Group Discussion

Assignments

Project

Theorem Writing Technique

Problem Solving

End Semester Examination:

Total Marks: 100

Duration: 3 hours

Section A : $5 \times 2 = 10$ (One question to be set from each unit)

Section B : $5 \times 6 = 30$ (Seven questions to be set, without omitting any unit)

Section C : $3 \times 20 = 60$ (Five questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.Sc. DEGREE : BRANCH I - MATHEMATICS

SYLLABUS

(Effective from the academic year 2015-2016)

FINANCIAL MATHEMATICS

(Skill Development Course)

CODE : 15MT/PI/FM24

CREDITS : 4

OBJECTIVE OF THE COURSE

- To introduce mathematical models to enhance the understanding of mathematics of finance and financial markets

Unit 1

Geometric Brownian Motion:

- 1.1 Geometric Brownian Motion
- 1.2 Geometric Brownian Motion as a Limit of Simpler Models
- 1.3 Brownian Motion - Simple Problems

Unit 2

Interest Rates and Present Value Analysis:

- 2.1 Interest Rates
- 2.2 Present Value Analysis
- 2.3 Rate of Return
- 2.4 Continuously Varying Interest Rates - Simple Problems

Unit 3

Pricing Contracts via Arbitrage

- 3.1 An Example in Options Pricing
- 3.2 Other Examples of Pricing via Arbitrage

The Arbitrage theorem

- 3.3 The Arbitrage theorem
- 3.4 The Multi-period Binomial Theorem
- 3.5 Proof of the Arbitrage Theorem - Simple Problems

Unit 4

The Black-Scholes Formula

- 4.1 The Black-Scholes Formula
- 4.2 Properties of Black-Scholes Option Cost
- 4.3 The Delta Hedging Arbitrage Strategy
- 4.4 Some deviations: The Black-Scholes Formula
- 4.5 The Partial Derivatives – Simple Problems

Unit 5

Valuing by Expected Utility

- 5.1 Limitations of Arbitrage Pricing
- 5.2 Valuing Investments by Expected Utility
- 5.3 The Portfolio Selection Problem
- 5.4 Value at Risk and Conditional Value at Risk
- 5.5 The Capital Assets Pricing Model
- 5.6 Mean Variance Analysis of Risk-Neutral-Priced Call Options
- 5.7 Rates of Return - Simple Problems

TEXT BOOK

Sheldon M. Ross. *An Elementary Introduction To Mathematical Finance* 2nd ed. Cambridge university press. 2005.

Chapter 3	Sections 3.1 – 3.3
Chapter 4	Sections 4.1 – 4.4
Chapter 5	Sections 5.1 – 5.2
Chapter 6	Sections 6.1 – 6.3
Chapter 7	Sections 7.1 – 7.5
Chapter 9	Sections 9.1 – 9.7

BOOKS FOR REFERENCE

Joseph. Stampfli, and Victor Goodman, *The Mathematics of Finance Modeling and Hedging*, Thomson publishers

Steven Roman, *Introduction to Mathematics of Finance*, Springer

JOURNALS

SIAM Journal on Financial Mathematics (SIFIN)

Journal of Mathematical Finance

Journal of Financial Engineering

WEB RESOURCES

http://www.tcs.tifr.res.in/~sandeepj/avail_papers/chapter.pdf

<http://plus.maths.org/content/what-financial-mathematics>

PATTERN OF EVALUATION: (End Semester Examination - 3 Hours)

Section A: $10 \times 2 = 20$ (Ten questions to be set selecting two from each unit)

Section B: $5 \times 8 = 40$ (Seven questions to be set without omitting any unit)

Section C: $2 \times 20 = 40$ (Three questions to be set without omitting any unit)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

BASICS OF PUBLIC RELATIONS

CODE: 15PR/PC/BP14

CREDITS : 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the basic premises and fundamental concepts of Public Relations
- To comprehend the distinction of Public Relations from Advertising, Marketing and Event Management

Unit 1

Definitions

(13 hrs.)

1.1 Publics

1.1.1 Internal Publics and External Publics

1.1.2 Two-way Communications

1.2 Functions of Public Relations :

1.2.1 Employee Relations

1.2.2 Customer Relations

1.2.3 Community Relations

1.2.4 Government Relations

1.2.5 Investor Relations

1.2.6 Media Relations

1.3 Advertising and Public Relations

1.4 Publicity, Propaganda and Public Relations

Unit 2

Evolution of Public Relations

(15 hrs.)

2.1 History of PR – World and India

2.1.1 The Eras of PR.

2.1.2 PR in UK, U.S.

2.1.3 PR in India- During Freedom Struggle & Post Industrial Revolution, PRSI

2.2 PR as an Industry

2.2.1 Need for Public Relations

2.2.2 Outsourcing of PR- Use of PR Agencies

2.2.3 Structure of a PR Department / Agency

2.3 Skill set for PR Personnel

2.3.1 Qualities of a PR Person

2.3.2 Ethics in PR

Unit 3

Corporate Image and Corporate Identity Management

(12 hrs.)

3.1 Corporate Image Defined and the Image Management Process

3.2 Image Makers

3.3 Stock Market and the Image

3.4 Corporate Identity Mix and Developing a Corporate Identity

Unit 4 (13 hrs.)

Event Management

- 4.1 Event Management Industry – A Historical Perspective
- 4.2 Events – Classification and Types
- 4.3 Special Events
- 4.4 Organizing an Event
- 4.5 Public Relations and Event Management

Unit 5 (12 hrs.)

Crisis Management

- 5.1 Kinds of Crises
- 5.2 Public Relations in Crisis Management
- 5.3 Ten Commandments of Crisis Management

BOOKS FOR STUDY

Black, Sam. *Practical Public Relations*. New Delhi: Universal Book Stall, 2005.

Cutlip, S.M., A.H Center and G.M Broom. *Effective Public Relations*. New Jersey: Pearson Education, 2006.

Darrow, R.W., D.J Forrestal, and A.D. Cookman. *The Dartnell Public Relations – Handbook. 2nd Ed.* Chicago and London: The Dartnell, 2005.

Heath, Robert L., Elizabeth Toth and D. Waymer (Eds). *Rhetorical and Critical Approaches to Public Relations II.* New York and London: Routledge, 2009.

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McKee, Kathy .B and L.F. Lamb. *Applied Public Relations: Cases in Stakeholder Management. 2nd Ed.* New York and London: Routledge, 2009.

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Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

Dunn, J. *Successful Public Relations: The Insider's Way to get Successful Media Coverage*. New Delhi: Viva, 2005.

Datta. K.B. *Fundamentals of Public Relations. 2nd Ed.* New Delhi: Akansha, 2007.

Harrison, Shirley. *Public Relations: An Introduction. 3rd Ed.* U.K.: Thomson Learning, 2008.

Jefkins, F. *Public Relations for your Business. 2nd Ed.* Mumbai: Jaico, 2006.

Kasor, Shrutika. *Public Relations. 2nd Ed.* New Delhi: Mohit, 2007.

Kaul, J.M. *Public Relations in India. 3rd Ed.* Calcutta: Naya Prokash, 2009.

Mehta, D.S. *Handbook of Public Relations in India. 6th Ed.* New Delhi: Allied, 2006.

Marconi, J. *Public Relations: The Complete Guide. 2nd Ed.* U.K.: Thomson and Racom Communications, 2006.

Moss, D and Santo De Barbara (Eds). *Public Relations Cases: International Perspectives. 3rd Ed.* London and New York: Routledge Taylor and Francis Group, 2009.

Wilcox, D.L, P.H. Ault, and W.K. Agree. *Public Relations. 2nd Ed.* New York: Longman, 2007.

JOURNALS

Getting To the Heart of Public Relations: The Concept of Strategic Intent: Melanie James

What it means to become Public Relations Professional: Student Perceptions of Professional Identity through real-world learning: Amisha Mehta, Ingrid Larkin

Key messages in public relations campaigns: Melanie James

Exploring the Concept of Mindfulness in Public Relations Practice: Douglas J. Swanson, Ed. D

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three Questions out of five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Group discussion

Assignments /Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A –10x2=20 marks (Answer all the Questions)

Section B – 5x8=40 marks (Five out of eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS
(Effective from the academic year 2015 - 2016)

COMMUNITY RELATIONS

CODE: 15PR/PC/CR14

CREDITS : 4

L T P: 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand the needs of the community to practice Community Relations.
- To know the community relations programs of industrial and service organizations
- To learn the role of Public Relations in bringing about Corporate Social Responsibility

Unit 1

Community Relations and its Importance in Public Relations (15 hrs.)

- 1.1 The Community Public: an Important Stakeholder in Public Relations
- 1.2 The Concept of Trusteeship and its Application to Industries
- 1.3 Industry as an Important Stakeholder in the Community
- 1.4 Community Relations Program and their Objectives
- 1.5 Benefits of Community Relations Programs to Business

Unit 2

Corporate Social Responsibility (15 hrs.)

- 2.1 Corporate Social Responsibility: Definition, Nature and Theories
- 2.2 Bringing about Business Ethics, Sustainability and attaining Corporate Citizenship
- 2.3 Environmental and Social Governance by Corporate Organizations
- 2.4 Globalization and CSR: Corporate Social Responsibility in a Global Context
- 2.5 Role of Public Relations in devising CSR Programs and Communications

Unit 3

Community Relations in Corporate and Service Organizations (10 hrs.)

- 3.1 Schemes and Programs for the Community by Industrial Organizations : Case Studies
- 3.2 Role of Banks and Insurance Organizations in Community Programs
- 3.3 Role of Police in Community Programs
- 3.4 Community Programs in Hospitals

Unit 4

Community Relations in Voluntary Organizations (15 hrs.)

- 4.1 Concept of Volunteerism and Voluntary Workers in a Community
- 4.2 Voluntary Organizations and Agencies – An Overview
- 4.3 Role of National Voluntary Organizations In Community Relations- Lions and Rotary
- 4.4 International Voluntary Organizations And Community - UNESCO, who and their Role in Development of Third World Countries

Unit 5

Public Relations' Professional and Community Relations (10 hrs.)

5.1 Knowledge, Skills and Attitudes Required to work in Community Relations

5.2 Public Relations' Tools in Community Relations

5.2.1 Community Opinion Polling

5.2.2 Working with Opinion Leaders

5.2.3 Organizing an Open House

5.2.4 Special Events

5.2.5 Local Advertising and Fund Raising

BOOKS FOR STUDY

Crane, Andrew, McWilliams, Abigail, Matten, Dirk, Moon, Jeremy, Stegel, Donald S (Ed) *The Oxford handbook of Corporate social Responsibility*, New York: Oxford, 2008.

Cutlip, S.M., and A.H.Center. *Effective Public Relations. 6th Ed.* New Jersey: Englewood Cliffs, 2008.

Cutlip, S.M., A.H. Center, and G.M.Broom. *Effective Public Relations. 9th Ed.* New Jersey: Pearson Education, 2009.

Davis, K and W.C. Frederick. *Business and Society : Management, Public Policy, Ethics. 3rd Ed.* USA: McGraw Hill, 2006.

Darrow, R.W, D.J. Forrestal, and Aubrey D. Cookman (Eds). *The Dartnell Public Relations – Handbook. 4th Ed.* Chicago and London: The Dartnell, 2007.

Kotler, Philip and Nancy Lee. *Corporate Social Responsibility: Doing the Most Good for Your Company and Your Cause.* New Delhi: Wiley India, 2008.

Lesly, P., *Handbook of Public Relations & Communications, 3rd Ed.* Mumbai: Jaico, 2008.

McKee, Kathy .B and L.F. Lamb. *Applied Public Relations: Cases in Stakeholder Management. 2nd Ed.* New York and London: Routledge, 2009.

Stephenson, H, (Ed). *Handbook of Public Relations: The Standard Guide to Public Affairs and Communications. 3rd Ed.* New York: McGraw Hill, 2007.

Swann, Patricia. *Cases in Public Relations Management.* New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

Drucker, Peter F. *Managing in Turbulent Times. 2nd Ed.* U.K.: Butterworth Heinemann, 2006.

Drucker, Peter F. *The Frontiers of Management. 2nd Ed.* U.K.: Butterwoth Heinemann, 2005.

Goel, O.P. *Strategic Management and Policy of N.G.O's. 2nd Ed.* New Delhi: Isha Books, 2007.

Lall, Robin. *The Dynamics of NGO's*. 3rd Ed. New Delhi: Dominant, 2008.

Mowli, V. Chandra, (ed). *Role of Voluntary Organizations in Social Development*. 2nd Ed. New Delhi: Sterling Publishers Pvt. Ltd., 2009.

Narasimhan, C.V. *The United Nations An Inside View*. 2nd Ed. New Delhi: Vikas, 2008.

JOURNALS

International Journal of CSR and Sustainability

Corporate Social Responsibility and Environmental Management (copyright 2014) John Wiley and sons Ltd. And ERP Environment

Social Responsibility Online Journal (Emerald Insight)

Public Relations Journal – Public Relations Society of America

Public Relations Review, Elsevier, United Kingdom

Asia Pacific PR Journal, Deakin University, Australia

PATTERN OF EVALUATION:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any One question out of Two)

Third Component

Total Marks: 50

List of evaluation modes:

Assignments

Presentations

Observations

End Semester Exam:

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE : PUBLIC RELATIONS
SYLLABUS
(Effective from the academic year 2015 - 2016)**

INTERPERSONAL AND GROUP COMMUNICATION

CODE: 15PR/PC/IG14

CREDITS : 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To comprehend the variety of communication theory and practices.
- To acquire skills in using communication tools

Unit 1 (13 hrs.)

Introduction

- 1.1 Definitions and Origin of Communication
- 1.2 Elements and Process of Communication
- 1.3 Types, Levels and Functions of Communication
- 1.4 Barriers to Effective Communication

Unit 2 (13 hrs.)

Intrapersonal Communication

- 2.1 Concept of Self – Johari Window Theory, Self-Esteem, Self-Acceptance and Personality Development
- 2.2 Coping with Fear, Shyness and Anger
- 2.3 Nonverbal Traits of Communication – Kinesics, Haptics, Oculistics, Vocalics, Chronemics, Archival and Olfactics

Unit 3 (13 hrs.)

3.1 Interpersonal Communication

- 3.1.1 Definition of Interpersonal Communication, Verbal and Non-Verbal Communication
- 3.1.2 Models of Interpersonal Communication : Lasswell Formula, Shannon and Weaver's, Osgood and Schramm's, David Berlo's SMCR model

3.2 Techniques of Interpersonal Communication

- 3.2.1 Verbal and Non-Verbal Traits of Public Speaking
- 3.2.2 Preparation, Planning and Practice of Oral Presentations
- 3.2.3 Telephone and Mike Techniques for Effective Communication
- 3.2.4 Letter Writing and Styles for Different Occasions

Unit 4 (13 hrs.)

Group Communication

- 4.1 Group Processes, Group Leadership and Group Dynamics
- 4.2 Group Discussions – People Involved, Procedure to Organize a GD, types- Symposium, Seminars, Panel Discussion, Debate; Interviews – Types and Procedure.
- 4.3 Intra-group and Inter – Group Communication Techniques and Methodologies
- 4.4 Organizing and Conducting a Conference, Meetings and Exhibition

Unit 5**(13 hrs.)****Models of Group Communication**

5.1 Model of Communication : Riley and Riley's Sociological Model

5.2 Roger's and Shoemaker's Model of Innovation Diffusion

5.3 Katz and Lazarsfeld's Two Step Flow Model, Stimulus and Response Models

BOOKS FOR STUDY

Black, Sam. *Practical Public Relations*. New Delhi: Universal Book Stall, 2006.

Lesly, P. *Handbook of Public Relations and Communications*. Mumbai: Jaico, 2008.

Stephenson, H. *Handbook of Public Relations : The Standard Guide to Public Affairs and Communications*. 2nd Ed. New Jersey: McGraw Hill, 2007.

McQuail, D and S.Windahl. *Communication Models for the Study of Mass Communications*. U.K: Longman, 2008.

Wakhlul, Savita. *Managing Presentations*. New Delhi: Response Books, 2006.

Zappala, J.M. and Ann R. Carden. *Public Relations Writing Worktext: A Practical Guide for The Profession*. 3rd Ed. New York: Routledge – Taylor and Francis Group. 2010.

BOOKS FOR REFERENCE

Adair, J. *Training for Communication*. U.K: Gower Press, 2005.

Bivins, T.H. *Public Relations Writing: The Essentials of Style and Format*. 7th Ed. McGraw Hill, 2011.

Figgins, R., S.P. Golen and C.G. Pearce. *Business Communication Basics : Application and Technology*. 3rd Ed. New York: John Wiley, 2008.

Gould Marks, L. *Management Communication through Audio – Visual Aids*. London: Leonard Hill, 2005.

Pace, R.W., R.R. Boren and B.D.Peterson. *Communication Behaviour and Experiments: A Scientific Approach*. 2nd Ed. California: Wadsworth, 2005.

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Peterson, B.D., N.D. White and E.G. Stephan. *Speak Easy: An Introduction to Public Speaking*. St Paul: West, 2008.

Phillips, Bonnie. D. *Effective Business Communications*. New York: Van Nostrand Reinhold, 2007.

Pool, Ithiel de Sola, Maccoby W.N. Schramm and E.B. Parker, eds. *Handbook of*

Communication. Chicago: Rand McNally College, 2010.

Singhal, A and E.M. Rogers. *India's Information Revolution: From Bullock Carts to Cyber Cafes*. 2nd Ed. New Delhi: Sage, 2011.

Srinivas, M.R. *Communication for Development in the Third World: Theory and Practice*. New Delhi: Sage, 2006.

Turk, C and Kirkmann. *Effective Writing*. London: E and FN Spoon, 2006.

Williams, Beryl. *Communicating Effectively: A Manager's Guide to getting through to People*. U.K: Thomson, 2007.

JOURNALS

Skilled Interpersonal Communication: Research, Theory, and Practice: Owen Hargie; David Dickson, Routledge

Interpersonal Communication Research: Advances through Meta-Analysis: Mike Allen; Raymond W. Preiss; Barbara Mae Gayle; Nancy Burrell

Handbook of Communication and Social Interaction Skills: John O. Greene; Brant R. Burleson: Lawrence Erlbaum Associates

The Dark Side of Interpersonal Communication: William R. Cupach; Brian H. Spitzberg

Teaching Communication - Theory, Research, and Methods: Anita L. Vangelisti; John A. Daly; Gustav W. Friedrich

PATTERN OF EVALUATION

Total Marks: 50

Duration: 90 mins

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Group discussion

Assignments / Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A –10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS
(Effective from the academic year 2015 - 2016)**

MARKETING AND ADVERTISING MANAGEMENT IN PUBLIC RELATIONS

CODE: 15PR/PC/MG14

CREDITS : 4

L T P: 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand basic concepts and practices in Marketing
- To appreciate the linkages between Marketing, Advertising and Public Relations

Unit 1

Basics of Marketing

(13 hrs.)

- 1.1 Definition, Elements and Principles of Marketing
- 1.2 Types of Marketing, Scope of Marketing
- 1.3 Emerging Domination of Marketing in Corporate and Non-Corporate Sectors
- 1.4 Definition of Advertising, Types of Advertising
- 1.5 Process of Advertising and Structure of an Ad Agency

Unit 2

Marketing Strategies

(14 hrs.)

- 2.1 Evolution and Launch of a Brand Concept
 - 2.1.1 Market Research and Analysis
 - 2.1.2 Market Segmentation, Targeting and Positioning
 - 2.1.3 Brand – Definition and Attributes – Equity, Positioning, Repositioning
 - 2.1.4 Brand Building: Corporate Brand, Corporate Identity, Product Brand and Employee Branding
 - 2.1.5 Multi Media Campaigns for Brand Promotion

Unit 3

Social Marketing

(13 hrs.)

- 3.1 Concept, Origin, Purpose and Goals of Social Marketing/ Cause Related Marketing
- 3.2 Difference between Social and Commercial Marketing
- 3.3 Integrating Social Cause with Social Marketing
- 3.4 Media Usage under Social Marketing
- 3.5 Application of PR in Social Marketing- Health and Hygiene, Environment, Women and Child Related Issues

Unit 4

Public Relations and Advertising

(13 hrs.)

- 4.1 Uses of Advertising in Public Relations Activity
- 4.2 Integration of Advertising and Public Relations for Effective Brand Communication
- 4.3 Image and Reputation Management through Advertising and Public Relations
- 4.4 Integrated Marketing Communication

Unit 5

Using Ad and Public Relations in Social Marketing

(12 hrs.)

5.1 Knowledge and Skills Needed to Organise Social Marketing Event

5.2 Uses of Advertising in Public Relations Activity

5.3 Image and Reputation Management through Advertising and Public Relations

5.4 Crisis Management through Advertising and Public Relations

BOOKS FOR STUDY

Batra, R., J.G. Myers and D.A. Aaker. *Advertising Management. 6th Ed.* New Delhi: Prentice Hall of India. 2006.

Hunt, S.D. *Foundations of Marketing theory : Towards a General Theory of Marketing.* New Delhi : Prentice Hall of India, 2005.

Kotler, P. *Marketing Management. 11th Ed.* New Delhi: Prentice Hall of India Pvt. Ltd, 2007.

Kotler, P and K.L. Keller. *Marketing Management. 13th Ed.* New Delhi: Prentice Hall of India Pvt. Ltd. 2009.

Kotler, P and Nancy Lee. *Corporate Social Responsibility: Doing the Most Good for your Company and your Cause.* New Delhi: Wiley India Pvt Ltd., 2005.

Batra, R., J.G. Myers and D.A. Aaker. *Advertising Management. 6th Ed.* New Delhi: Prentice Hall of India, 2006.

Gupta, D. *Handbook of Advertising Media and Public Relations.* New Delhi: Mittal Publications, 2005.

Loudon, D., R Stevens and Wrenn. *Marketing Management :Text and Cases. 2nd Ed.* New Delhi: Best Business Books, 2006.

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Nargundkar, R, *Services Marketing : Text and Cases. 2nd Ed.* New Delhi : Tata McGraw Hill Publishing Co. Ltd, 2006.

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BOOKS FOR REFERENCE

Nargundkar, R and T.K. Panda (Eds.). *Marketing Strategies for Emerging Markets.* New Delhi: Excel Books, 2005.

Pelsmacker, P.de, Maggie Geunns and Vanden J. Bergh. *Marketing Communications. 2nd Ed.* London: Financial Times, Prentice Hall, 2008.

Rajagopal. *Marketing : Strategy, Implementation and Control. 2nd Ed.* Jaipur : Rawat Publication, 2006.

Saxena, H.M. *Marketing Behaviour: A Regional Analysis. 2nd Ed.* Jaipur : RBSA Publishers, 2007.

Farbery, A.D. *Handbook of Successful Advertising. 2nd Ed.* New Delhi: Crest Publishing Co, 2005.

Gupta, D. *Handbook of Advertising Media and Public Relations.* New Delhi: Mittal Publications, 2005.

Srinivasan. R. *Case Studies in Marketing : the Indian Context. 3rd Ed.* New Delhi: Prentice Hall of India Pvt. Ltd., 2005.

Warner, C and Buchmann. *Media Selling : Broadcast, Cable, Print and Interactive. 4th Ed.* New Delhi: Surjeet Publication, 2006.

Parente, D. *Advertising Campaign Strategy : A Guide to Marketing Communications. 2nd Ed.* U.K.: South Western Thomson Learning, 2009.

Moore, R.L., Carmen Maye and E.L. Collins. *Advertising and Public Relations Law. 2nd Ed.* New York and London: Routledge, 2011.

JOURNALS

International Journal of Internet Marketing and Advertising: Dr. HsiuJu Rebecca Yen

Indian Journal of Marketing: Cope Publications

Journal of Marketing Studies: Canadian Center of Science and Education

Journal of Advertising and Marketing Research: Dr. Erika Matulich

International Journal of Internet Marketing and Advertising: Inderscience Enterprises Ltd

PATTERN OF EVALUATION

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

PUBLIC RELATIONS IN THE CORPORATE SECTOR

CODE: 15PR/PC/CO24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the importance of Public Relations as a management function in the corporate world.
- To discern the individual and departmental contributions of Public Relations in business organisations

Unit 1

Current Scenario (13 hrs.)

- 1.1 Major Social, Economic, Technological and Political Trends and their Impact on the Industry
- 1.2 Public Interest in Environment, Urban Affairs, Race Relations, Political Activism, Consumerism, Attitudes of Young People and Impact of Technology
- 1.3 Pressures on Corporate Sector and Multinationals by Consumerism, Attitudes of People and Impact of Technology

Unit 2

Corporate World and Public Relations (13 hrs.)

- 2.1 Speeches, Visits, Personal Calls
- 2.2 Tours, Conventions, Conferences, Meetings
- 2.3 Educational Courses and Training Programs
- 2.4 Community and Corporate Social Responsibility Projects and Special Events

Unit 3

Corporate Governance (13 hrs.)

- 3.1 Code of Conduct
- 3.2 Rules and Regulations
- 3.3 Product Specification
- 3.4 Quality Control
- 3.5 R and D Association

Unit 4

Stockholder and Investor Relations (13 hrs.)

- 4.1 Welcome Letters and Offers to New Shareholders and Investors
- 4.2 Answering Shareholder and Investors Letters
- 4.3 Preparation and Distribution of Quarterly and Annual Reports
- 4.4 Annual Meetings
- 4.5 Maintaining Liaison with Security Analysts
- 4.6 Web-based Shareholder and Investor Relations

Unit 5

Media Relations of Corporate Organizations

(13 hrs.)

- 5.1 Interpret Company Policies, Actions and Positions to Members of the Media
- 5.2 Preparation and Distribution of News Releases, Press Statements, News Pictures, TV Footage and Other Materials
- 5.3 Conducting Press Conferences and Other Special Programs
- 5.4 Maintaining Effective Relationship with Writers, Editors and Other Representatives of the Mass Media

BOOKS FOR STUDY

- Lesly, P. *Handbook of Public Relations & Communications*. 3rd Ed. Mumbai: Jaico, 2008.
- Black, Sam. *Practical Public Relations*. 2nd Ed. New Delhi: Universal Book Stall, 2007.
- Carroll, C.E. (Ed). *Corporate Reputation and the News Media: Agenda-setting within Business News Coverage in Developed, Emerging, and Frontier Market*. New York: Routledge, 2011.
- Cutlip, S.M. and A.H. Center and G.M. Broom. *Effective Public Relations*. 2nd Ed. New Jersey: Pearson Education, 2010.
- Darrow, R.W., D.J. Forrestal and A.D. Cookman. *The Dartnell Public Relations – Handbook*. 2nd Ed. Chicago and London: The Dartnell Corporation, 2006..
- McKee, Kathy .B and L.F. Lamb. *Applied Public Relations: Cases in Stakeholder Management*. 2nd Ed. New York and London: Routledge, 2009.
- Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

- Angenti, P.A. and Jains Forman. *The Power of Corporate Communication : Crafting the Voice and Image of your Business*. 2nd Ed. New Delhi: Tata McGraw Hill, 2005.
- Clampitt, P.G. *Communicating for Managerial Effectiveness*. 2nd Ed. New Delhi: Sage, 2010.
- Hawamdeh, Suliman, Al. *Knowledge Management : Cultivating Knowledge Professionals*. England : Chandos, 2005.
- Marting, Elizabeth. *Effective Communication on the Job : A Guide for Supervisors and Executives*. 3rd Ed. Bombay: Tarapnerala, 2007.
- Timm, P.R. and B.D. Peterson. *People at Work : Human Relations in Organization*. 2nd Ed. St. Paul: West, 2006.
- Pace, R.W. and R.R. Boren. *The Human Transaction : Facets, Functions and Forms of Interpersonal Communication*. England: Scott, Foresman, 2008.

JOURNALS

Monika Bogdal, Communication Management in Public Sectors

Public Relations in the Corporate Sector

Alison Theaker, The Public Relations Handbook

Barbara Ryan, How can the Corporate Sector concepts of 'reputation' and 'trust' be used

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (Answer all the questions)

Section B – $3 \times 8 = 24$ marks (Answer any Three questions out of Five)

Section C – $1 \times 20 = 20$ marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (Answer all the Questions)

Section B – $5 \times 8 = 40$ marks (Five out of Eight to be answered)

Section C – $2 \times 20 = 40$ marks (One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE: PUBLIC RELATIONS

SYLLABUS

(Effective from the academic year 2015 - 2016)

CUSTOMER RELATIONS

CODE: 15PR/PC/CU24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the importance of customers
- To comprehend all aspects of reaching out to customers

Unit 1

The Customer is Always Right (15 hrs.)

- 1.1 Conversion of Materials, Money, Manpower and Other Resources to a Product / Service for Customers in the Market Places
- 1.2 Healthy Balance of Input and Output in Organisations and Importance of the Customer Public
- 1.3 Customer and Consumer, Needs and Requirements
- 1.4 Customer Expectations, Satisfaction and Delight
- 1.5 Concept of Consumerism in India

Unit 2

The Customer is the King (10 hrs.)

- 2.1 Changing Environment: Legislations, Growing Awareness of Public, Consumer Courts and Complaints
- 2.2 Mass Media: Public Education, Information Dissemination, Debate and Discussion
- 2.3 Consumer Protection Act, Rights and Responsibilities of Consumers
- 2.4 Grievances, Handling Complaints, Return – Refund Policies in Organization

Unit 3

Customer Relations Procedures and Communication: (15 hrs.)

- 3.1 Customer Relations Policies and Procedures in Large, Medium and Small Industries
- 3.2 The Growing Need of Customer Relationship Management in the Global Market
- 3.3 Types of Customers and Handling Communications
- 3.4 Effective Communication with Customers – E Mails, SMS, Phone Calls, Face to Face Interaction; Barriers to Communication and Breaking Down the Barriers
- 3.5 Building Loyalty: Types of Customer Loyalty, Service, Quality and Incentives

Unit 4

Practical Customer Relations: Case Studies from Organisations (15 hrs.)

- 4.1 Health Sector
- 4.2 Hospitality Sector
- 4.3 Airlines
- 4.4 Online Portals
- 4.5 Tourism

Unit 5

The Public Relations' Professional and Customer Relations (10 hrs.)

5.1 Knowledge, Attitude and Skills Required in a Public Relations Professional

5.1.1 Surveys to Gauge Customer "Delight"

5.1.2 Campaigns for Customer Outreach

5.1.3 Obtaining Feedback from Customers

5.1.4 Organizing Customer Meet

5.2 Customer Care and Customer Outreach Efforts in Organizations

BOOKS FOR STUDY

Darrow, R.W., D.J. Forrester and A.D. Cookman. *The Dartnell Public Relations – Handbook*. Chicago and London: The Dartnell, 2007.

Lesly, P. *Handbook of Public Relations and Communications*. Mumbai: Jaico, 2008.

McKee, Kathy .B and L.F. Lamb. *Applied Public Relations: Cases in Stakeholder Management*. New York and London: Routledge, 2009.

Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

Anderson, Knistin and Carol Kerr. *Customer Relationship Management*. New Delhi: Tata McGraw, 2005.

Balachandran, S. *Customer Driven Services Management*. New Delhi: Response Books, 2006.

Batra, Promod. *Service Customers : Service Management Ideas*. New Delhi: Think, 2009.

Cook, Sarah. *Customer Care Excellence : How to Create An Effective Customer Focus*. Indian Ed. New Delhi: Kogan Page, 2006.

Duchessi, P. *Crafting Customer Value: The Art and Science*. Mumbai: Jaico, 2006.

De Vrye, Catherine. *The Customer Service Zoo : Create Customers for Life and a Life for Yourself*. India Ed. Chennai: Allen and Unwin 2009.

Hasouneh, Abdel. B. *Consumer Behaviour. 2nd Ed.* Jaipur: Subline, 2012.

Jain, P.C. and Monica Bhatt. *Consumer Behaviour in Indian Context*. New Delhi: S.Chand, 2005.

Nair, Suja. *Consumer Behaviour : Texts and Cases. 2nd Ed.* Mumbai: Himalaya, 2009.

Naik, C.N. K. and L.V.Reddy. *Consumer Behaviour. 3rd Ed.* New Delhi: Discovery, 2009.

Nargundkar, R and T.K. Panda (Eds.). *Managing Customer Relationship in Service Industries*. New Delhi: Excel Books, 2005.

Pankar, P.K. *Consumer Behaviour and Consumption Patterns*. 2nd Ed. New Delhi: Deep and Deep, 2008.

Sheth, J.N. and B. Mittal. *Customer Behaviour : A Managerial Perspective*. 4th Ed. U.K.: Thomson South – Western, 2006.

Solomon, M.R. *Consumer Behaviour : Buying, Having and Being*. 6th Ed. New Delhi: Prentice Hall of India, 2005.

JOURNALS

International Journal of Customer Relationship Marketing and Management – IGI Global

Understanding Customer Relationship Management: People, Process and Technology:
Emerald Insight

Ivey Business Journal Online: Improving the Practice of management

International Journal of Business and Social science

Public Relations Journal – Public Relations Society of America

Public Relations Review, Elsevier, United Kingdom

Asia Pacific PR Journal, Deakin University, Australia

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three out of five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Assignments / Quiz

Presentations

Customer Surveys in Organizations and outside and reporting

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the Questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS
(Effective from the academic year 2015 - 2016)**

MASS COMMUNICATION

CODE: 15PR/PC/MC24

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To comprehend the nature and workings of the mass media
- To understand how to maximize the potential of mass media in serving the needs of PR practices.

Unit 1

Introduction to Mass Media

(13 hrs.)

- 1.1 Definitions and Classifications of Mass Media
- 1.2 Mass Media as an Industry:
 - 1.2.1 Major Players in the Mass Media Industry
 - 1.2.2 Economics of Mass Media
- 1.3 Functions of Mass Media – News or Information, Education, Entertainment, Commerce, Integration, Development
- 1.4 Models of Mass Media – Maletzke’s Model of Mass Communication Process, Comstock’s Psychological Model of Television Effects in Individual Behavior, Ball-Rokeach’s Dependency Model of Mass Communication Effects, Comparative Media Systems: The Free Market Model

Unit 2

Print Media

(13 hrs.)

- 2.1 Origin and Development of Print media- World and India-an Overview
- 2.2 Media Ownership and Popular players in Newspaper And Magazine Industry
- 2.3 Printing Techniques and Technologies
- 2.4 Ethics in Journalism / Responsibilities of Journalists

Unit 3

Electronic Media

(13 hrs.)

- 3.1 Origin and Development of Radio and TV - World and India-An Overview
- 3.2 Cable TV Revolution and Satellite Communication Technologies
- 3.3 Media Ownership Patterns and its Impact
- 3.4 Digitization and Recent Trends

Unit 4

New Media

(13 hrs.)

- 4.1 Evolution of New Media – World and India- an Overview
- 4.2 ICT and Development- Case Studies in India
- 4.3 Application of Interactive Communication such as Video Conferencing, Streaming Media: Internet TV, Internet Radio
- 4.4 Social Media and Social Networking Sites

Unit 5

Cinema

(13 hrs.)

- 5.1 Evolution of World Cinema- An Overview
- 5.2 Evolution of Indian Cinema – An Overview
- 5.3 Cinema as a Communicating Medium- Mainstream Vs. Parallel Cinema and its Genres
- 5.4 Components of a Cinema and Process of Making a Cinema.

BOOKS FOR STUDY

Kumar, Keval .J. *Mass Communication in India*, Jaico, 2006.

Roggers, Everret. *Communication Revolution, From Bullock Carts to Cyber Marts*, Sage, 2005

Cutlip, S.M., A.H Center and G.M. Broom. *Effective Public Relations. 2nd Ed.* New Jersey: Pearson Education, 2005.

Darrow, R.W., D.J. Forrestal and A.D.Cookman. *The Dartnell Public Relations – Handbook*. Chicago and London : Dartnell, 2007.

Lesly, P. *Handbook of Public Relations & Communications*. Mumbai: Jaico, 2008.

McQuail, D and S. Windahl. *Communication Models for the Study of Mass Communications*. U.K: Longman, 2007.

Stephenson, H. *Handbook of Public Relations : The Standard Guide to Public Affairs and Communications. 2nd Ed.* New Jersey: McGraw Hill, 2007.

BOOKS FOR REFERENCES

Astbury, A.K. *Freelance Journalism. 2nd Ed.* London: Bell, 2006.

Batchelder, Margaret. *The Puppet Theatre Handbook. 3rd Ed.* London: Herbert Jenkins, 2010.

Butcher, Melissa. *Transnational Television, Cultural Identity and Change*. London: Sage, 2005.

Crisell, A. *Understanding Radio*. London: Methuen, 2006.

Crisell, A. *A Study of Modern Television: Thinking inside the box*. London: Palgrave Macmillan, 2006.

Desai, A. *Journalism and Mass Communication*. New Delhi: Reference Press, 2009.

Glover, S. (Ed.) *The Penguin Book of Journalism..* London: Penguin Book, 2010.

Joshi, Uma (Ed.). *Media Research: Cross-Sectional Analysis*. New Delhi: Authors, 2009

- Kohli – Khandekar, Vanita. *The Indian Media Business..* London: Sage, 2012.
- Kumar, A. *Trends in Modern Journalism.* New Delhi: Sarup and Sons, 2005.
- Kumar, A. *Information Technology and Social Change.* New Delhi: Sarup and Sons, 2006.
- McQuail, D. *Mass Communication Theory.* New Delhi: Vistaar, 2005.
- Meschke, M and Margareta Sorenson. *In search of Aesthetics for the Puppet Theatre.* New Delhi: Sterling, 2007.
- Morley, D. *Media, Modernity and Technology.* London and New York: Routledge, Taylor and Francis Group, 2007.
- Potter. W. J. *Media Literacy.* London: Sage, 2005.
- Rantanen, T. *The Media and Globalization.* London: Sage, 2005.
- Roy, S. *Globalization, ICT and Developing Nations.* New Delhi: Sage, 2005.
- Schmurl, R. (Ed.). *The Responsibilities of Journalism. 2nd Ed.* New Delhi: Affiliated East West, 2008.
- Webster, F. *Theories of the Information Society. 4th Ed.* London: Routledge, Taylor and Francis Group, 2005.
- Wilson, J. *Understanding Journalism. 2nd Ed.* London and New York: Routledge, 2006.

JOURNALS

Mass communication and society: Taylor and Francis

Media watch: Sony Jalarajan Raj

Journalism & Mass Communication Quarterly: Louisa Ha

International journal of communication: Larry Gross

New media and mass communication: IISTE

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Assignments

Seminars

Case Studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the Questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE: PUBLIC RELATIONS

SYLLABUS

(Effective from the academic year 2015 - 2016)

SOFT SKILLS

CODE: 15PR/PK/SS22

CREDITS : 2

L T P :200

TOTAL TEACHING HOURS:26

OBJECTIVES OF THE COURSE

- To empower and create opportunities for self-development
- To instil confidence and face challenges

Unit 1

Behavioural Traits for Self-Awareness (6hrs.)

- 1.1 Communication Skills – Verbal and Non Verbal
- 1.2 Leadership Qualities
- 1.3 Etiquette and Mannerisms
- 1.4 Experiential Learning – Based on Activities

Unit 2

Team Work (5hrs.)

- 2.1 Interpersonal Skills
- 2.2 People Management
- 2.3 Creative Thinking
- 2.4 Critical Thinking
- 2.5 Experiential Learning – Based on Activities

Unit 3

Time Management (5hrs.)

- 3.1 Importance of Time Management
- 3.2 Planning and Prioritising
- 3.3 Organizing Skills
- 3.4 Action Plan
- 3.5 Experiential learning – based on activities

Unit 4

Conflict Resolutions (5hrs.)

- 4.1 Reason for Conflict
- 4.2 Consequences of Conflicts
- 4.3 Managing Emotions
- 4.4 Methods of Resolving Conflicts
- 4.5 Experiential Learning – Based on Activities

Unit 5

Career Mapping (5hrs.)

- 5.1 Goal Setting
- 5.2 Career Planning
- 5.3 Resume Writing
- 5.4 Handling Interviews
- 5.5 Experiential Learning – Based on Activities

BOOKS FOR REFERENCE

Khera, Shiv, *You Can Win*, MacMillan India Ltd., Delhi. 2006.

Mishra, Rajiv. K., *Personality Development: Transform Yourself. 2nd Ed.*Rupa, New Delhi. 2005

Newstron, John. W. Scannel, Edward E., *Games Trainers Play: Experiential Learning*. New Delhi: Tata McGraw Hill,2008

PATTERN OF EVALUATION

Continuous Assessment:

List of evaluation modes:

Seminars / Group discussion

Quiz

Assignments / Case studies

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

PUBLIC RELATIONS IN THE SERVICE SECTOR

CODE: 15PR/PC/SS34

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To comprehend the complexity of Public Relations in the service sector.
- To develop understanding of the skills of Public Relations in the service sector.

Unit 1

Service Sector and the Four Step Public Relations Process (15 hrs.)

- 1.1 Some Outstanding Features of the Service Sector: People-Intensive, Service-Delivery, and Customer-Satisfaction
- 1.2 Soft Skills for People Working in Service Sector: Grooming, Courtesy, Patience, Friendliness, Service Mentality
- 1.3 First Step of Public Relations Process: Fact-Finding and Feedback
- 1.4 Second Step of Public Relations Process: Planning and Programming
- 1.5 Third Step of Public Relations Process: Action and Communication
- 1.6 Fourth Step of Public Relations Process: Evaluation

Unit 2

**Public Relations for Utilities: (12 hrs.)
Electricity, Gas, Water, Telephone and Communication**

- 2.1 The Unique Nature Of Utilities
- 2.2 Relations with Publics: Customers, Regulatory Agencies, Financial Community, Trade Allies and Employees
- 2.3 Special Concerns: Consumerism, Environment, Privatization and Community

Unit 3

Public Relations for Travel, Tourism and Hospitality (13 hrs.)

- 3.1 Travel and Tourism and Hospitality Stakes in Today's World
- 3.2 Budgeting and Themes to Attract Tourists: Product, Pricing, Place, Publicity and P.R
- 3.3 Scheduling and Working with Travel Organisations
- 3.4 Advertising, Marketing- the Four P's and Media Relations for this Sector
- 3.5 Employee and Customer Relations

Unit 4

Public Relations in Health Care Institutions and Hospitals (12 hrs.)

- 4.1 Changing Environment in Society and Health Care Institutions' Responses
- 4.2 Public Relations Two-Way Communication in Health Care Institutions: Health Care Employees, Volunteer Groups, Medical Staff and Patients

Unit 5

Public Relations in Education

(13 hrs.)

- 5.1 Publics: Students, Parents, Alumni, Faculty, Staff and Community
- 5.2 Changing Scenario in Education Worldwide
- 5.3 Media Relations for Educational Institutions

BOOKS FOR STUDY

Cutlip, S.M. and Center, A.H and G.M. Broom. *Effective Public Relations*, New Jersey: Pearson Education, 2005.

Darrow, R.W., D.J. Forrestal and A.D. Cookman. *The Dartnell Public Relations – Handbook*. Chicago and London: The Dartnell, 2007.

Deuschl, D.E. *Travel and Tourism Public Relations: An Introductory Guide for Hospitality Managers*. Oxford, U.K: Elsevier. 2006.

Lesly, P. *Handbook of Public Relations & Communications*. Mumbai: Jaico, 2009.

BOOKS FOR REFERENCE

Baker, K. and J. Huyton. *Hospitality Management*. Melbourne: Hospitality Press, 2006.

Bezbaruah, M.P. *Indian Tourism: Beyond the Millenium*. New Delhi: Gyan, 2005.

Dhar, P.N. *International Toruism*. New Delhi: Kanishka, 2011.

Foley, M, J.J.Lennon and G.A.Maxwell. *Hospitality, Tourism and Leisure Management*. London: Cassell, 2007.

Goel, S.L. *Health Care Organization and Structure*. New Delhi: Deep and Deep, 2006.

Goel, S.L. *Health Care System and Management: Administration in the 21st Century* (In Four Volumes). New Delhi: Deep and Deep, 2006.

Madhukar, M. *Human Resource Management in Tourism*. New Delhi: Rajat Publications, 2008.

Medlik, S. *Dictionary of Travel and Tourism and Hospitality*. Oxford: Butterworth Heinemann, 2006.

Medlik, S. (Ed.). *Managing Tourism*. Oxford: Butterworth Heinemann, 2005.

Middleton, V.T.C. *Marketing in Travel and Tourism*. Oxford: Butterworth Heinemann, 2009.

Morgan, N. M. and Annete Pritchard. *Advertising in Tourism and Leisure*. Oxford: Butterworth Heinemann, 2008.

Teare, R. et al (Ed.). *Global Directions, New Strategies for Hospitality and Tourism*. Cassell. 2007.

Walker, N. *Introduction to Hospitality*. New Jersey: Prentice Hall, 2005

Wearne, N. *Hospitality Marketing*. New Delhi: Global Books, 2006.

JOURNALS

The Service Industries Journal, Volume 35: Taylor & Francis

Significance and Specifics of Communication in the Service Sector: Helmut Schneider,
Bilgen Coskun

Features of Public Relations in Service Sector: Rohit Patil

Public Relations in the Service Sector: Tony Langham

PATTERN OF EVALUATION

Total Marks: 50

Duration: 90 mins

Section A – $3 \times 2 = 6$ marks (Answer all the questions)

Section B – $3 \times 8 = 24$ marks (Answer any Three questions out of Five)

Section C – $1 \times 20 = 20$ marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (Answer all the questions)

Section B – $5 \times 8 = 40$ marks (Five out of Eight two to be answered)

Section C – $2 \times 20 = 40$ marks (Two out of four to be answered)

STELLAMARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086
M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS
(Effective from the academic year 2015 - 2016)

EMPLOYEE RELATIONS

CODE:15PR/PC/ER34

CREDITS: 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To comprehend the role of employees – an important stakeholder in an organization
- To understand the different channels of employee communication

Unit 1

Employee Public (15 hrs.)

- 1.1 Industrial Relations and Employee Relations – Concepts and Definitions
- 1.2 Need for Effective Employee Relations: Employee Involvement and Participation
- 1.3 Expectations of the Employers and the Employees
- 1.4 Aligning Corporate and Individual Goals
- 1.5 Challenges in Employer – Employee Relationship

Unit 2

Labor Relations (15 hrs.)

- 2.1 Trade Unions and Employee Associations
- 2.2 The Restless Employee
- 2.3 Timing and Negotiations
- 2.4 Handling Strikes and Lockouts
- 2.5 Skills for Effective Grievance Handling

Unit 3

Public Relations – Employers and Employees Working Relationship (15 hrs.)

- 3.1 Public Relations Start with Administrators, Staff and Line Roles and Functions
- 3.2 Structure and Function of Public Relations – Enabling the Functioning in an Organisation
- 3.3 Collaborative and Cooperative Functions of the Public Relations Department
- 3.4 Functions of the Public Relations Practitioner, Hierarchy of Public Relations Department; Role of Public Relations Consultant in an Organisation
- 3.5 Establishing Effective Leadership
- 3.6 Organizing a Job and Reporting Results

Unit 4

Employee Communication – Internal Public Relations (10 hrs.)

- 4.1 Upward, Downward, Lateral and Informal Communication
- 4.2 In-Plant Systems for Employees – Exhibits, Films, Radio, Plant Newspaper, Weekly Publications, In-house publications, Mail
- 4.3 Evaluation and Listening Process

Unit 5

Increasing Challenges

(10 hrs.)

5.1 Facilitate Societal Issues – Employee Community Development

5.1.1 Involvement in Clubs and Societies

5.1.2 Involvement in Festivals and Fairs

5.1.3 Engaging in Service Activities

5.2 Assisting in Family Issues

5.2.1 Issues of Spouses / Children ; Health And Stress

5.2.2 Emergency, Accident and Death

5.2.3 Drug-abuse and Alcoholism

BOOKS FOR STUDY

Cutlip, S. and A.H. Center. *Effective Public Relations*. New Jersey: Englewood Cliffs, 2005.

Darrow, R. W., D.J. Forrestal and A.D. Cookman. *The Dartnell Public Relations -- Handbook*. Chicago and London: Dartnell, 2007.

Elizabeth Aylott. *Employee Relations (HR Fundamentals)*: United Kingdom, Kogan Page, 2014

Lesly, P. *Handbook of Public Relations and Communications*. Mumbai: Jaico, 2008.

McKee, Kathy .B and L.F. Lamb. *Applied Public Relations: Cases in Stakeholder Management*. New York and London: Routledge, 2009.

Stephenson, H. *Handbook of Public Relations: The Standard Guide to Public Affairs and Communications*. New Jersey: McGraw Hill, 2007.

Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

Aswathappa, K. *Human Resources and Personnel Management*. 7th Ed. New Delhi : Tata McGraw Hill, 2006.

Bhargava, P.P. *Issues in Personnel Management*. Jaipur: Printwell ,2010.

Chand, Tara. *Management of Organizational Behavior*. New Delhi: Mohit, 2008.

Davar, R.S. *The Human Side of Management*. New Delhi: Universal, 2011.

Dayal, R. et.al. (Ed.). *Personnel Management and Industrial Relations*. New Delhi: Mittal, 2006.

Jacob, K.K. and S. Mohanan. *Industrial Relations in Public Sector*. Delhi: New Century, 2005.

Kumar, Prem and A.K. Ghosh. (Ed.). *Personnel Management and Industrial Relations*. New Delhi: Anmol, 2006.

Kumar, N. and R. Mittal. *Personnel Management and Industrial Relations*. 3rd Ed. New Delhi: Anmol, 2010.

Pareek, Udai. *Personnel Management*. Bombay: Himalaya, 2010.

Ramrakhiani, B.J. *Human Aspects of Work and Productivity*. Bombay: Allied, 2006.

Rao, M.G. et al (Ed.). *Industrial Labor: Emerging Trends*. New Delhi: Kanishka, 2007.

Rastogi, T.N. *Personnel Management – Perspectives and Techniques*. New Delhi: Anmol, 2013.

Sloane, A. A. and F. Whitney. *Labor Relations*. New Jersey: Prentice Hall, 2009.

JOURNALS:

The International Journal of Human Resource Management – Taylor and Francis Online

Human Resource Management on Wiley Online Library

SA Journal of Human Resource Management – Aosis Open Journals

Human Resource Management International Digest – Emerald Insight

Public Relations Journal – Public Relations Society of America

Public Relations Review, Elsevier, United Kingdom

Asia Pacific PR Journal, Deakin University, Australia

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 Mins

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Assignments

Seminars

Case Studies

End Semester Examination

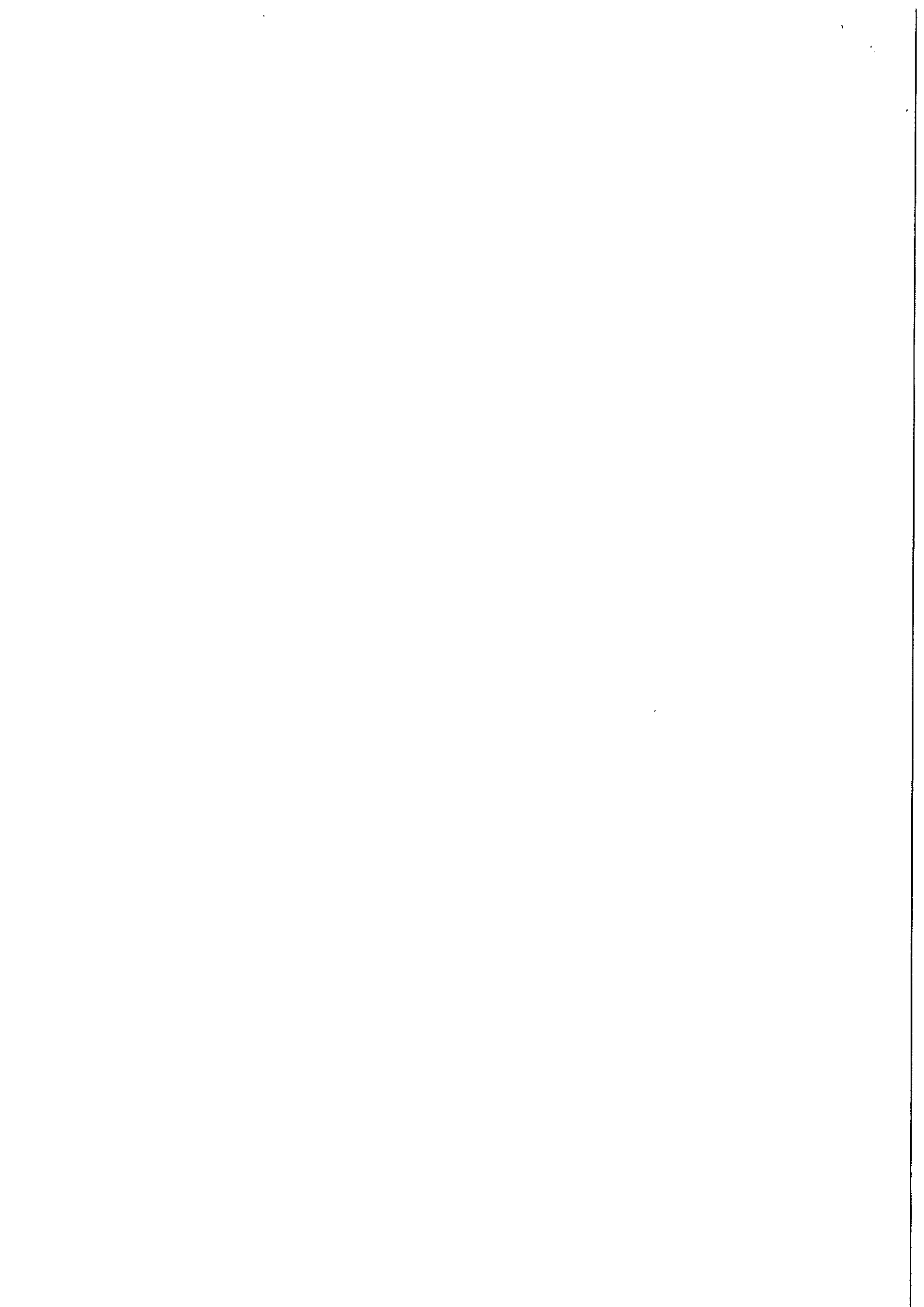
Total Marks: 100

Duration: 3 Hours

Section A – 10x2=20 marks (Answer all the Questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)



STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

WRITING FOR MEDIA

CODE: 15PR/PC/WM34

CREDITS : 4

L T P: 4 0 1

TOTAL TEACHING HOURS: 65

OBJECTIVES OF THE COURSE

- To understand the components of writing for media
- To give an insight about writing for media in today's business scenario

Unit 1

Print Media (13 hrs.)

- 1.1 News stories, Articles, Features, Infographics, Editorials
- 1.2 Inverted Pyramid Structure,
- 1.3 Importance and Types of Headlines, Caption
- 1.4 Reporting for Political News, Sports News, Business Coverage, Parliamentary/Legislature, Social – Trends, Happenings, Gossip, Leisure – Movies, Art and Craft

Unit 2

Electronic Media – Radio and Television (13 hrs.)

- 2.1 Features and Importance of Audio, Audio-Visual Communication
- 2.2 Genres of Radio Programs
- 2.3 Radio Programmes - Conceptualizing, Script Writing, Capsuling
- 2.4 Video Formats and Genres of Video Programme, Pre Production
- 2.5 Television Programing - Conceptualising, Script Writing, Screen Play, Story Board

Unit 3

New Media (13 hrs.)

- 3.1 Introduction to New Media – Types of Social Media
- 3.2 Task based Writing for Social Media – Facebook, Twitter, Google Plus
- 3.3 Understanding Creative Blog Writing, Online Newsletter, Website Pages

Unit 4

Writing for Advertising (13 hrs.)

- 4.1 Copywriting – Headlines, Sub Headlines and Types, Body Copy, Captions, Taglines, Slogans, Coupons
- 4.2 Text Elements of Advertising – Clichés words, Action Words, Emotive Words, Alliteration, Colloquialisms, punctuation and Grammar
- 4.3 Visualization Process – Ideation, Conceptualization, Preparation, Dummy, Rough Sketch, Thumbnail, Comprehensive Copy, Index Print, Copy Final
- 4.4 Visual Elements of Advertising – Cartoons, Caricatures, Drawings, Sketches, Illustrations, Photographs, Charts, Maps and Graphs

Unit 5

Public Relations

(13 hrs.)

- 5.1 Press Releases and Types, Speeches and Types
- 5.2 Drafting Memos, Circulars, Preparation of Bulletins for Noticeboards
- 5.3 Media Alerts and Pictures, Backgrounds and Features
- 5.4 Writing for Journals – In-house and External

BOOKS FOR STUDY

Twelow, J. *Newspapers And Media Convergence*. Editor and Publisher, 2009.

Ituli, B. and Anderson, D. *News Writing and Reporting for Today's Media*.
McGraw-Hill, 2007.

Berger, Asa Arthur. *Essentials of Mass Communication*, Sage Publications, 2005.

Chowla, N L. *Listening and Viewing*. Sage

Joanne ZorianLymn. *Presenting for TV and Video*. London: A and C Black

Newson, E. *Public Relations Writing: Form and Writing Styles*.
Thomson Learning, 2008.

Michael Rabiger, *Directing the Documentary*. London: Focal Press, 2007..

JOURNALS

The News Manual– A Professional Resource for Journalists: David Ingram

Assessing Writing: Elsevier

Public Relations Writing: Donalde Treadwell and Jill Treadwell

Writing for Television, Radio, and New Media: Robert L. Hilliard

Content and Usability: Writing for the Web:Philip Webb

PATTERN OF EVALUATION

Total Marks: 50

Duration: 90 mins

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Project Proposal

Assignments

Case studies

End Semester Examination

Total Marks: 100

Duration: 3 Hours

Section A –10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight two to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

**SUMMER INTERNSHIP: CORPORATE SECTOR /NON-GOVERNMENTAL
ORGANISATION**

CODE: 15PR/PN/SI22

**CREDITS: 2
TOTAL HOURS : 104**

OBJECTIVES OF THE INTERNSHIP

- To work in a Corporate/NGO for 30 working days in summer between First year and Second year
- To understand the structure of the Corporate/NGO
- To document observations, perceptions and work experiences into a report
- To present the internship report in a Viva Voce and face questioning

PLAN OF ACTION FOR FACULTY:

- This internship is usually in April-May after the student has completed
 - a) a semester of theory in: Public Relations in the Corporate sector, Customer Relations, Communication Skills II and Electives.
 - b) papers in Community Relations, Basics of Public Relations, Interpersonal Communication have already been covered in the first semester and hence will be useful for an internship in the NGO
 - c) case studies through guest lectures by professionals from different organisations
 - d) workshops in communications which include practicals and demonstrations
 - e) attended seminars/conferences/workshops
 - f) analyzed data and made presentations during practical work in theory papers

Hence the internship should provide facilities for the student to transform all the above learning experiences into practical applications and provide a platform for experiential learning.

- The faculty should contact different corporate/service organisations- small, medium and large in both the private and government sector.
- The Students should be given a Corporate organisation/ NGO according to her academic performance and participation in departmental, collegiate and inter- collegiate activities.
- The attendance and assessment sheet should be prepared and collected at the end of the internship and internship assessment is to be entered as C.A marks. Report and Viva Voce marks (End semester exam marks) are to be also entered and consolidated
- When the Corporate /service organisation sends an acceptance letter agreeing to the internship of the students one photocopy is to be given to the student and the original filed in the department.
- When the student submits internship reports Viva Voce examination is to be conducted with one internal and external examiner and the consolidated mark sheet to be handed over to the Controller of Examination office

FOR STUDENTS:

- Obtain good theoretical knowledge in all subjects through lectures and reading in the library
- Listen to all case studies and attempt to understand the practical applications in the concerned sector.
- Participate actively in all practical sessions and acquire skills in communication and PR
- Acquire the proper knowledge, attitude and skills in any field study or visit
- Cultivate good listening, speaking, reading, writing and interpersonal communication skills
- SMS supervising faculty daily on work done
- During the 30 days (4 weeks) of internship plan and use the time effectively as follows:
 - a) For the first five working days (one week) learn: the mission, vision, objectives, structure and programs of the Corporate sector / NGO
 - b) For the next ten working days (two weeks) obtain information from the personnel in the Corporate /service organisation the PR tools used for (i) employees (ii) customers (iii) community (iv) government (v) stockholders (vi) financial institutions (vii) press and other media and (viii) all communication and PR media used to communicate with all the publics of the organisation.
 - c) For the last five working days (one week) document all the work done and show it to the supervisor at the organisation and obtain the necessary documentation
- Prepare three copies of the internship report and a soft copy (DVD) and submit to the department. One report is for the department, one for the organisation which has to be handed over with a thank you letter from the department and one is for the student
- Make a good presentation at the Viva Voce and answer questions; obtain one copy of the report.

SUGGESTED READING

Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge. 2010.

PATTERN OF EVALUATION:

Continuous Assessment:

Total Marks: 50

The organisation is required to assess every student based on Knowledge, attitude to learn, attendance and skills- acquired and developed during internship and this assessment marks is taken as Continuous Assessment Marks

Viva- Voce Examination:

Total Marks: 100 Internal Examiner: 50 marks External Examiner: 50 marks

- The entire learning from the internship along with highlights to be presented
- A copy of the report to be handed over to organisation on request.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

PUBLIC RELATIONS IN THE GOVERNMENT SECTOR

CODE: 15PR/PC/PG44

CREDITS: 4

L T P: 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To understand the vastness and complexities of the government
- To perceive the need for the government to explain, interpret and clarify to the citizen
- To comprehend the Public Relations practices in government

Unit 1

Government and its role today (13 hrs.)

- 1.1 Increasing Complexity of Government
- 1.2 Public Relations' Role in Government
- 1.3 Public Grievances and their Redressal by Government
- 1.4 Building-up Credibility to Governmental Public Relations
- 1.5 Challenges in Governmental Public Relations

Unit 2

Public Relations: Central Government (13 hrs.)

- 2.1 Information and Public Relations Department at the Center
- 2.2 Diplomatic Missions Abroad
- 2.3 Ministry of Tele-Communication, Defense, Agriculture and Energy
- 2.4 Outreach Programs

Unit 3

Public Relations: State Government (13 hrs.)

- 3.1 Information and Publicity Department at the State and Public Relations Officers
- 3.2 State Departments of Education, Health, Social Welfare, Textiles and Police
- 3.3 Outreach Programs with People

Unit 4

Public Relations: Local Government, Corporation and Municipality (13 hrs.)

- 4.1 Information, Publicity and Municipality Public Relations Officers
- 4.2 Outreach Programs for People
- 4.3 Feedback Mechanisms from the Community

Unit 5

Media Relations in Government (13 hrs.)

- 5.1 Exhibitions and Trade Fairs
- 5.2 Festivals and Fairs
- 5.3 Print and Publicity Media
- 5.4 Electronic Media

BOOKS FOR STUDY

Black, Sam. *Practical Public Relations*. New Delhi: Universal, 2005.

Cutlip, S.M. and A.H Center and G.M. Broom. *Effective Public Relations*. New Jersey: Pearson Education, 2007.

Darrow, R.W., D.J. Forrestal, and A.D. Cookman. *The Dartnell Public Relations – Handbook..* Chicago and London: The Dartnell, 2005.

Lesly, P. *Handbook of Public Relations & Communications. 3rd Ed.* Mumbai: Jaico, 2008.

McKee, Kathy .B and L.F. Lamb. *Applied Public Relations: Cases in Stakeholder Management. 2nd Ed.* New York and London: Routledge, 2009.

Stephenson, H. *Handbook of Public Relations: The Standard Guide to Public Affairs and Communications.* New Jersey: McGraw Hill, 2011.

Swann, Patricia. *Cases in Public Relations Management.* New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

Appadora, A. *The Substance of Politics.* London: OUP, 2007.

Barker, E. et al. *Parliamentary Government in the Commonwealth.* London: Hansard, 2011.

Chhabra, H.S (Ed.). *Opposition in the Parliament.* Delhi: New Publishers, 2007.

Gover, V. (Ed.). *Indian Political System: Trends and Challenges.* New Delhi: Deep and Deep, 2008.

Ghatate, N. M (Ed.). *Atal Bihari Vajpayee, Four Decades in Parliament (in 4 Vols).* New Delhi: Shipra, 2012.

Hale, H. W. *Political Trouble in India.* Allahabad: Chugh, 2009.

Johnson, P.E. *American Government: People, Institutions and Policies.* Geneva: Houghton Mifflin, 2007.

Johari, J.C. *Indian Political System.* New Delhi: Amnol, 2006.

Morris – Jones, W. H. *Parliament in India.* London: Longmans, Green, 2007.

Morgan, R.E and J. E .Connor. (Ed.). *The American Political System.* New York: Harcourt Brace Jovanovich, 2007.

Wheare. K. C. *Federal Government.* London: OUP, 2006.

Zaidi, A.M. (Ed.). *The Annual Register of Indian Political Parties (in 2 Vols.)* New Delhi: IIAPR, 2005.

JOURNALS

Journal of Public Administration Research and Theory: Oxford Journals

Public Relations Inquiry (online): SAGE Publications

PRism online PR Journal: Praxis

Asia Pacific Public Relations Journal: Public Relations Institute of Australia

Public Relations Journal – Public Relations Society of America

Public Relations Review, Elsevier, United Kingdom

Journal of Public Administration and Policy Research: Academic Journal Online

Wiley Online Library: Scholarly articles published on Public Administration

PATTERN OF EVALUATION:

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Group discussion

Assignments / Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

DISSERTATION ON A PUBLIC RELATIONS TOPIC AND VIVA VOCE

CODE: 15PR/PC/DI45

CREDITS : 5

OBJECTIVES OF THE COURSE

- To understand the basics of conducting, analyzing and evaluating research in Public Relations practice.
- To comprehend the use research findings to improve the PR efforts.

Unit 1

Introduction to Research

- 1.1 Definition of Research, Social Research and PR Research
- 1.2 Scope of Research in PR Activity and its Consequent Advantages to PR as a Discipline
- 1.3 Corporate Use of Research in Public Relations and Advertising
- 1.4 Case Studies of PR Research Across Multinational, International, National and Local Companies

Unit 2

Steps in Research for PR

- 2.1 Identifying the Need for Research
- 2.2 Defining the Problem Areas and Need Gaps
- 2.3 Studying the Background and Previous Researches in the Area, if any
- 2.4 Setting Goals for the Research
- 2.5 Establishing Criteria for Demarcating the Groups to be Researched

Unit 3

Methodologies and Tools used in Research for PR

- 3.1 Data Collection - Primary and Secondary
- 3.2 Basics of Sampling Techniques
- 3.3 Surveys, Questionnaires, Interviews
- 3.4 Test groups, Blind Testing, Public Opinion Polling
- 3.5 Ethnographic Studies

Unit 4

Evaluating and Using Research Findings

- 4.1 Setting Standards for the Research Findings
- 4.2 Data Compilation
- 4.3 Application of Statistical Methods
- 4.4 Data Analysis
- 4.5 Tabulation and Presentation of Findings

Unit 5

Research Report and Documentation

5.1 Documenting Research Planning, Execution and Analysis

5.2 Drawing Conclusions and Highlighting the Learning from the Research

5.3 Bibliography and Indexing

5.4 Relevant Documents attached as part of Appendix

BOOKS FOR REFERENCE

Austin, Erica. W., B.E. Pinkleton. *Strategic Public Relations Management: Planning and Managing Effective Communication Programs*; Lawrence Erlbaum, 2006.

Heath, R.L (Ed). *Encyclopedia of Public Relations. (in two Vols.)*. Thousand Oaks: Sage, 2005.

W. Timothy Coombs on 'Formative Research' in Vol. 1 and 2 of *Encyclopedia of Public Relations*

Newsom, D, J.W.Turk and D. Kruckerberg. *This is PR: The Realities of Public Relations*. Australia: Thomson Wordsworth, 2007.

Ruler, Betteke Van, Ana T. Vercic and Dejan Vercic. *Public Relations Metrics: Research and Evaluation*. New York and London: Routledge, 2008.

Swann, Patricia. *Cases in Public Relations Management*, New York and London: Routledge, 2010.

PATTERN OF EVALUATION:

Continuous Assessment:

Total Marks: 50

Proposal Presentation

Topic Selection

Review of Literature

End semester Examination:

Viva- Voce Examination:

Total Marks: 100 Internal Examiner: 50marks

External Examiner: 50 marks

- The Topic, Methodology used and Findings to be presented
- Knowledge about the chosen area of study and skill in handling questions would be tested during viva-voce.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

PUBLIC RELATIONS CAMPAIGN MANAGEMENT

CODE: 15PR/PC/CM44

CREDITS : 4

L T P : 1 0 7

TOTAL CAMPAIGN HOURS: 104

OBJECTIVES OF THE CAMPAIGN

- To plan and execute a PR campaign through series of events based on a theme
- To apply techniques in tailoring communication across all media, for purposes of promoting a social cause
- To work in a group to use PR to address societal issues which need to be brought to public consciousness

CAMPAIGN GUIDELINES:

Choice of Topic:

The student is required:

- To adopt a social cause that is relevant to society
- To identify and work with an organisation that is working in the area of the social cause, so that there is continuity and sustainability even after the campaign is over
- To define which facet of the social cause can be most effectively used as a focus of PR activity
- To plan a PR campaign around this facet of the social cause

PR Campaign Aims

The PR campaign should accomplish the following:

- Increase awareness about the case/organisation
- Urge more people to involve themselves with the activities of the social cause/organisation
- Urge donations of cash and kind from the society for the social cause/organisation

PR Campaign planning

The campaign plan must include the following:

- PR Brief
- Media Planning
- Proposed partnerships/sponsors with special emphasis on budget planning, fund raising and fund utilization including accounting
- Evaluation format

The Media Covered may include:

- Press: Newspaper and magazine coverage
- Out Of Home: Posters, Leaflets
- Radio: Interviews, ideas for interactive shows to involve people
- TV: Expert interview/News Bulletin/News Feature Spots
- Internet: Website design and execution, Blog forum discussions
- Indigenous Media: Folk and other media

Advertising may be planned across all the above media

Below the line PR Activities:

Events, Interactive and Demonstrative Camps, Road Shows, Seminars etc. must be planned and executed.

Documentation:

The document must contain the following:

- Background of the social cause and organisation
- PR brief
- PR plan
- Media Plan
- Explanation of the execution of the above, in detail
- Photographs
- Articles, if any that have been published
- Details of individual contributions

BOOKS FOR REFERENCE

Austin, Erica W, B.E. Pinkleton. *Strategic Public Relations Management: Planning and Managing Effective Communication Programs*. New Jersey: Lawrence Erlbaum, 2006.

Heath, R.L (Ed). *Encyclopedia of Public Relations*. Thousand Oaks: Sage Publications. 2005.

W. Timothy Coombs on 'Goals' in Vol. 1 of *Encyclopedia of Public Relations*

W. Timothy Coombs on 'Objectives' in Vol. 2 of *Encyclopedia of Public Relations*

Don. W. Stacks on 'Benchmarking' in Vol. 1 of *Encyclopedia of Public Relations*

O'Connor, Amy on 'Reputation Management' in Vol. 2 of *Encyclopedia of Public Relations*

Smith, R.D. *Strategic Planning for Public Relations*. New York and London: Routledge. 2009.

PATTERN OF EVALUATION:

Continuous Assessment:

Total Marks: 50

Accomplishment/ Execution of the assigned task

Ability to work in a team

Active participation throughout the campaign

Viva- Voce Examination:

Total Marks: 100 Internal Examiner: 50marks

External Examiner: 50 marks

- The entire PR campaign along with highlights to be presented
- Individual and group contribution to be assessed
- A copy of the report to be handed over to Sponsor(s) on request.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

GOVERNMENT RELATIONS

CODE: 15PR/PC/GR 44

CREDITS : 4

L T P : 4 1 0

TOTAL TEACHING HOURS : 65

OBJECTIVES OF THE COURSE

- To comprehend the communication tools and channels of the different wings of the Government
- To understand the methods by which citizens can communicate with Government Organizations

Unit 1

Power of Government

(13 hrs.)

- 1.1 Government is Big Business
- 1.2 The Increasing Power of all Arms of the Government
- 1.3 Public Relations' Role in Politics and Public Relations' Role in Government
Especially with reference to Policy Making
- 1.4 Winning Acceptance to the PR Function

Unit 2

Lobbying

(13 hrs.)

- 2.1 Individual / Traditional Lobbyist
- 2.2 Professional / Specialist Lobbyist
- 2.3 Public Interest Groups or Issue Lobbyist
- 2.4 Consultants and other Lobbyists

Unit 3

Public Affairs

(13 hrs.)

- 3.1 Business's Involvement with Government on Societal Issues
- 3.2 The Publics of Government and Freedom of Information
- 3.3 Working with Legislators and Legislative Bodies
- 3.4 Working with Government Departments, Directorates, Corporations, Bureaus and Agencies
- 3.5 Hearings and Meetings: A Focal Point of Public Opinion

Unit 4

Interest Groups

(13 hrs.)

- 4.1 Women's Groups and Government
- 4.2 Groups for the Elderly, Children and Governmental Agencies
- 4.3 Civic Groups
- 4.4 Protests, Marches and Demonstrations and Other Methods of Communication

Unit 5

Citizens' Awareness of Facets of Government

(13 hrs.)

5.1 Learning about Administration

5.2 Becoming Aware of Legislations, Ordinances and Executive Orders

5.3 Equipping Oneself with Knowledge of Taxation

5.4 Law Enforcement, Social Welfare and Prison Authorities.

BOOKS FOR STUDY

Black, Sam. *Practical Public Relations*. New Delhi: Universal Book Stall, 2005.

Cutlip, S.M., A.H Center and G.M. Broom. *Effective Public Relations*. New Jersey: Pearson Education, 2010.

Darrow, R.W., D.J.Forrestal and A.D. Cookman. *The Dartnell Public Relations – Handbook*. Chicago and London: The Dartnell Corporation, 2007.

Lesly, P. *Handbook of Public Relations & Communications*. 3rd Ed. Mumbai: Jaico Publishing Company, 2008.

Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

Barker, R. *Education and Politics*. Oxford: Clarendon Press, 2007.

Beetham, D. and K.Boyle. *Democracy: 80 Questions and Answers*. Bombay: National Book Trust, 2005.

Desai, M. *Divided by Democracy*. Delhi: Lotus Collection, 2005.

De, R.K. *Socio Political Movements in India*. New Delhi: Mittal, 2008.

Ghosh, S. K. *Indian Democracy Derailed*. New Delhi: APH Pub. Corp., 2007.

Held, D. and M.A. Malden. *Models of Democracy: Polity* 2006.

Horwitz, R (Ed.). *The Moral Foundation of the American Republic*. Charlottesville: United Press of Virginia, 20089.

Huntington, S. P. *American Politics: The Promise of Disharmony*. Cambridge, MA: The Belknap, 2009.

McKeon, R (Ed). *Democracy in a World of Tensions..* Paris: UNESCO, 2006.

Vayunandan, E and Dolly Mathew (Ed.). *Good Governance: Initiatives in India*. New Delhi: Prentice Hall of India, 2005.

Weiner, M. *The Indian Paradox*. New Delhi: Sage, 2009.

Yasin, Madhvi. *Indian Administration*. New Delhi: Light and Life, 2006.

JOURNALS

Corporate Journal: The International Journal of Business and Society: Emerald Insight

Public Relations Inquiry (online): SAGE Publications

PRism online PR Journal: Praxis

Asia Pacific Public Relations Journal: Public Relations Institute of Australia

Public Relations Journal – Public Relations Society of America

Public Relations Review, Elsevier, United Kingdom

PATTERN OF EVALUATION:

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Group discussion

Assignments / Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A –10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

INTERNSHIP: SERVICE SECTOR / GOVERNMENT ORGANISATION

CODE: 15PR/PC/IN44

**CREDITS : 4
TOTAL HOURS : 104**

OBJECTIVES OF THE INTERNSHIP

- To work in a Service Sector /Government organisation for 30 days
- To understand the structure of the Service Sector / Government organisation
- To document observations, perceptions and work experiences into a report
- To present the internship report in a Viva Voce examination

PLAN OF ACTION

FOR FACULTY:

- This internship is usually in February - March when the student learns through the semester, the theory in:
 - a) Public Relations in the Government Sector and Government Relations, along with practical campaign and dissertation and hence will be useful for an internship in the Government sector.
 - b) papers in Community Relations, Basics of Public Relations, Marketing Management & Interpersonal Communication have already been covered in the first semester and hence will be useful for an internship in the Service sector
 - c) case studies through guest lectures by professionals from different organisations
 - d) conducting a PR campaign on a social cause/problem after designing all the materials for the media used
 - e) attended seminars/conferences/workshops
 - f) conducting research on a topic of the student's choice
 - g) analyzed data and made presentations

Hence the internship should provide facilities for the student to transform all the above learning experiences into practical applications and provide a platform for experiential learning.

- The faculty should contact different service organisations- small, medium and large in both the private and government sector / Government organisations- small, medium and large in the municipal, state and central government organisations
- The Students should be given a service organisation/ Government organisation according to her academic performance and participation in departmental, collegiate and inter- collegiate activities.
- The attendance and assessment sheet should be prepared and collected at the end of the internship and internship assessment marks is to be entered as C.A marks. Report and Viva Voce marks (End semester exam marks) are to be also entered and consolidated

- When the student submits internship reports Viva Voce examination is to be conducted with one internal and external examiner and the consolidated mark sheet to be handed over to the Controller of Examination office

FOR STUDENTS:

- Obtain good theoretical knowledge in all subjects through lectures and reading in the library
- Listen to all case studies and attempt to understand the practical applications in the concerned sector.
- Participate actively in all practical sessions and acquire skills in communication and PR
- Acquire the proper knowledge, attitude and skills in any field study or visit
- Cultivate good listening, speaking, reading, writing and interpersonal communication skills
- SMS supervising faculty daily on work done
- During the 30 days (4 weeks) of internship plan and use the time effectively as follows:
 - a) For the first five working days (one week) learn: the mission, vision, objectives, structure and programs of the Government /service organisations
 - b) For the next ten working days (two weeks) obtain information from the personnel in the Corporate /service organisation the PR tools used for (i) employees (ii) customers (iii) community (iv) government (v) stockholders (vi) financial institutions (vii) press and other media and (viii) all communication and PR media used to communicate with all the publics of the organisation.
 - c) For the last five working days (one week) document all the work done and show it to the supervisor at the organisation and obtain the necessary documentation
- Prepare three copies of the internship report and a soft copy (DVD) and submit to the department. One report is for the department, one for the organisation which has to be handed over with a thank you letter from the department and one is for the student
- Make a good presentation at the Viva Voce and answer questions; obtain one copy of the report.

SUGGESTED READING

Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge. 2010.

PATTERN OF EVALUATION:

Continuous Assessment:

Total Marks: 50

The organization is required to assess every student based on Knowledge, attitude to learn, attendance and skills- acquired and developed during internship and this assessment marks is taken as Continuous Assessment Marks

Viva- Voce Examination:

Total Marks: 100 Internal Examiner: 50marks
External Examiner: 50 marks

- The entire learning from the internship along with highlights to be presented
- A copy of the report to be handed over to organisation on request.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

COMMUNICATION TOOLS FOR PUBLIC RELATIONS

CODE: 15PR/PE/CT14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To understand the different types of public relations tools
- To understand the effective use of the communication tools

Unit 1

Public Speaking (11 hrs.)

- 1.1 Overcoming Stage Fright : Reason for Nervousness, How to Control Fear, Values of Fear
- 1.2 Self-Confidence through Presentation: Basic Skills – Listening Skills, Giving Expressions to Thoughts, Observations and Feelings
- 1.3 Topic Selection, Organization & Research, Techniques of Delivery (Gestures, Facial Expressions, Eye Contact, and Methods to Overcome Audience Rejection)

Unit 2

Presentation Skills (10 hrs.)

- 2.1 Different Modes of Speaking: Voice Modulation and Supportive Aids
- 2.2 Implementing Creativity in Speech (Getting Positive Impression)
- 2.3 Making an Effective Presentation with Various Aids – Projector, Games, Probes

Unit 3

Photography (11 hrs.)

- 3.1 SLR and Digital Cameras – Differences, Advantages and Disadvantages
- 3.2 Controls – Shutter Speed, Aperture and Camera Settings
- 3.3 Compositions – Subject, Rule of Third, Line, Frame
- 3.4 Lighting: Exposure, Flash and Fixing Common Problems

Unit 4

Creativity Implementation (10 hrs.)

- 4.1 Pre – Production – Conceptualizing and Budgeting
- 4.2 Production – Shooting Techniques
- 4.3 Post – Production – Editing Techniques
- 4.4 Practical Workshop: Production of a Short Film

Unit 5**Indigenous Communication Tools****(10 hrs.)**

5.1 Street Theater

- 5.1.1 Evolution of Mime and Indian Theater
- 5.1.2 Important Forms of Street Theater in India used as a Medium of Communication: Tamasha of Maharashtra, Jatra of West Bengal and Therukoothu of Tamilnadu.
- 5.1.3 Supportive Elements: Costumes, Make Up, Accessories, Lighting, Folk Music
- 5.1.4 Social Activism and Street Theater: Case Studies from Different Parts of India

5.2 Puppetry

- 5.2.1 Forms of Puppets – Shadow, String, Rod and Glove
- 5.2.2 Traditional Forms of Puppetry used as a Medium of Communication in India. Kathuthli (Rajasthan), Bommalattam (Tamil Nadu), Tholu Bommalatta (Andhra Pradesh), Yampui (Bihar), Pavakoothu (Kerala)
- 5.2.3 Practical Workshop on Street Theater and Puppetry

BOOKS FOR STUDY

Oberg, Brent C. *An Introduction to Public Speaking*. Ahmedabad. Jaico Publishing house, 2011.

Lessel, William M. *Creating Graphics that Communicate*. 2nd Ed. Chicago. Moody Press, 2007

Ocvirk, Otto G, Stinson, Robert E, Wigg, Philip R, Bone, Robert O, Clayton, David L. *Art Fundamentals, Theory and Practice*. 2nd Ed. Boston. Mcgraw Hill, 2008.

Unit 3 & 4: Freeman, John. *Practical Photography – How to get the best picture everytime*. 3rd Ed. NewYork. Anness Publishing Limited, 2011.

Long, Ben. *Complete Digital Photography*. 3rd Ed. Massachusetts. Charles River Media Inc., 2009.

Lal, Anans (Ed). *Theatres of India (A Concise Companion)*. New Delhi. Oxford University Press, 2009.

Richmond, Farley P, Swann, Darius L, Zarrilli, Philip B (Ed). *Indian Theatre (Traditions of Performance)*. New Delhi. Motilal Banarasidas Publishers, 2007.

BOOKS FOR REFERENCE

Bhatiya, Nandi (Ed). *Modern Indian Theatre*. New Delhi. Oxford University Press, 2009.

Sircar, Badal. *On Theatre. Kolkata*. Seagull Press, 2009.

Varadapande M L. *History of Indian theatre Loka Ranga Panorama of Indian Folk Theatre*. 2nd Ed. New Delhi. Abhinav Publications, 2005.

Carnege, Dale. *How to develop self-confidence and influence people by public speaking*. London. Simon & Schuster, 2011.

Mckey, Matthew. *Communication Skills*. New Delhi. B Jain Publishers Ltd, 2010.

Busch, David D. *Mastering Digital SLR Photography*. Boston. Thomas Course Technology PTR, 2005.

JOURNALS

Journal of Communication Management: MCB UP

Journal of Media and Communication: Luke Heemsbergen, Suneel Jethani

Journal of Communication: Silvio Waisbord

Corporate Communications: An International Journal: Pertti Hurme

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – $3 \times 2 = 6$ marks (Answer all the questions)

Section B – $3 \times 8 = 24$ marks (Answer any Three questions out of Five)

Section C – $1 \times 20 = 20$ marks (Answer any one question out of Two)

Third Component:

List of evaluation modes:

Seminars

Group discussion

Assignments / Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – $10 \times 2 = 20$ marks (Answer all the questions)

Section B – $5 \times 8 = 40$ marks (Five out of Eight to be answered)

Section C – $2 \times 20 = 40$ marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

M.A. DEGREE: PUBLIC RELATIONS

SYLLABUS

(Effective from the academic year 2015 - 2016)

**PERSPECTIVES OF HUMAN RESOURCE MANAGEMENT
IN PUBLIC RELATIONS**

CODE: 15PR/PE/HM14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the importance of Human Resource Management in any organisation
- To comprehend the use of public relations tools in Human Resource Management

Unit 1

Induction

(11 hrs.)

- 1.1 Describing Organisation Culture and Environment
- 1.2 Job Design Recruitment and Selection
- 1.3 Policy, Rules and Regulations
- 1.4 Case Studies from PR Organisations

Unit 2

Incentives and Training

(11 hrs.)

- 2.1 Appraising the Employee Performance- Performance Incentives
- 2.2 Context of Training – Understanding The Importance of Training Applications
- 2.3 Training Process and Methods
- 2.4 Evolution and Post Training Support

Unit 3

Development and Communication

(11 hrs.)

- 3.1 Development Strategies for Individual Employees – Talent Management, Motivation, Perspectives, Career Management, Stress Management, Job Satisfaction, Attitude and Values
- 3.2 Retraining and Re-deployment
- 3.3 Communication with Employees
- 3.4 Managing Ethical Issues in HRM

Unit 4

Contemporary Issues

(10 hrs.)

- 4.1 Contemporary Issues in Human Resource Management
- 4.2 International Human Resource Management – Maintaining Relationship
- 4.3 The E-HR
- 4.4 The Safe and Healthy Environment

Unit 5

External Human Resource Management

(10 hrs.)

- 5.1 Minorities in Organization
- 5.2 Human Resource Management Outside the Organisation
- 5.3 Co-Curricular and Extra-Curricular Activities for Employees within the Organisation

5.4 Case Studies

BOOKS FOR STUDY

Black, Sam. *Practical Public Relations*. 2nd Ed. New Delhi: Universal Book Stall, 2005.

Cutlip, S.M., A.H. Center and G.M. Broom. *Effective Public Relations*. 2nd Ed. New Jersey: Pearson Education, 2006.

Darrow, R.W., D.J. Forrestal and A.D. Cookman. *The Dartnell Public Relations – Handbook*. 3rd Ed. Chicago and London: The Dartnell Corporation, 2007.

Lesly, P. *Handbook of Public Relations & Communications*. 3rd Ed. Mumbai: Jaico Publishing Company, 2008.

Stephenson, H. *Handbook of Public Relations: The Standard Guide to Public Affairs and Communications*. 4th Ed. New Jersey: McGraw Hill Book Co., 2011.

BOOKS FOR REFERENCE

Agochiya, D. *Every Trainer's Handbook*. 2nd Ed. New Delhi: Sage Publications Pvt. Ltd., 2005.

Beardwell, I and L. Holden. *Human Resource Management: A Contemporary Perspectives*. 3rd Ed. New Delhi: Macmillan India Ltd., 2006.

Goss, D. *Principles of Human Resource Management*. 2nd Ed. London and New York: Routledge, 2010.

Khanka, S.S. *Organizational Behavior*. 2nd Ed. New Delhi: S. Chand and Co., 2006.

Kheiman S L. *Human Resources Management: A Managerial tool for Competitive Advantage*. 3rd Ed. New Delhi: Biztantra Publication, 2005.

Lynton P. R. and U. Pareek. *Training for Development*. 2nd Ed. New Delhi: Vistaar Publications., 2005.

Mathis. L. R. and J. Jackson. *Personnel Human Resource Management*. 5th Ed. New Delhi: Tata MacGraw- Hill Publications Ltd., 2008.

Mathur B. L. *Human Resource Management*. 2nd Ed. New Delhi: Mohit Publications, 2007.

Mello. A. J. *Strategic Human Resource Management*. Australia: Thomson South Western, 2005.

Michael V.P. *Human Resources Management and Human Resources*. 2nd Ed. New Delhi: Himalaya Publishing House, 2006.

Rao, Subba P. Dr. *Essentials of Human Resources Management: Changing Perceptions and Practice*. 3rd Ed. Hyderabad: Institute of Chartered Financial Analysts of India, 2008.

Rao, S P. *Human Resources Management in the new Millennium*. 4th Ed. New Delhi: Himalaya Publishing House, 2009.

Sharma, N, Jai. *Human Resource Management. 2nd Ed.* New Delhi: Mittal Publications, 2005.

Tyson, S. *Strategic Prospects for HRM. 4th Ed.* London: Institute of Personnel and Development and Mumbai: Jaico Publications, 2011.

JOURNALS

The International Journal of Business Management: Theijbm

Human Resource Management Journal: Human Resource Management Journal

The International Journal of Human Resource Management: Taylor & Francis

The Journal of Human Resources: Sandra E. Black

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component:

Case Studies

Seminars

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A –10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: PUBLIC RELATIONS

SYLLABUS

(Effective from the academic year 2015 - 2016)

INTRODUCTION TO PUBLIC RELATIONS

CODE: 15PR/PE/IP24

CREDITS : 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To understand the fundamental concepts in Public Relations
- To apprehend the use of communication tools to reach the Public

Unit 1

Introduction to Public Relations

(11 hrs.)

1.1 Meaning and Definition of Public Relations

1.2 Publics: Internal and External

1.3 Publicity, Propaganda, Advertising and Marketing

1.4 Definitions and Difference between Publicity, Propaganda, Advertising and Marketing and Public Relations

Unit 2

Community and Government

(11 hrs.)

2.1 Meaning and Importance of Community Relations

2.2 Community Expectations: Employment, Education, Housing, Health and Medical Care, Safety and Security, Municipality and Environment

2.3 Tools of Community Relations: Open House, Special Events, Local Advertising, External House Publications, Fundraising, Volunteerism and Media

2.4 Government: Right to Information and Citizen Initiatives

Unit 3

Employees and Customers

(11 hrs.)

3.1 Meaning and Definition: Employee Relations and Customer Relations

3.2 Employee Expectations

3.3 Characteristics of Good Employee Communication

3.4 Customer Relations Programme and Maintaining Good Customer Relations

3.5 Public Relations and Customer Satisfaction

Unit 4

Communication Tools

(10 hrs.)

4.1 Public Speaking and Presentational Skills

4.2 Press Relations and Media Relations

4.3 Photography and Films as an Aid to Public Relations

4.4 Internet and its Use in Public Relations

4.5 Exhibitions and Trade Fairs

Unit 5

Event Management

(10 hrs.)

- 5.1 Events – A Powerful Communication Tool
- 5.2 Objectives of Special Events
- 5.3 Types of Events
- 5.4 Steps in Organising an Event

BOOKS FOR REFERENCE

Black, Sam. *Practical Public Relations*. 2nd Ed. New Delhi: Universal, 2005.

Lesly, P. *Handbook of Public Relations & Communications* . Mumbai: Jaico, 2008.

Sachdeva, I. *Public Relations Principles and Practices*. New Delhi: Oxford, 2009.

JOURNALS

Introduction: Image and Public Relations Practice: Horst Avenarius

Introduction to Public Relations - A comprehensive insight into the key elements of PR: Jenny Ashmore

Interactive Public Relations: Kelleher

Journal of Public Relations Research: Taylor & Francis

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Presentations

Assignments / Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A –10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086

M.A. DEGREE: PUBLIC RELATIONS

SYLLABUS

(Effective from the academic year 2015 - 2016)

PUBLIC RELATION SKILLS

CODE: 15PR/PE/PS34

CREDITS: 4

L T P : 4 0 0

TOTAL TEACHING HOURS : 52

OBJECTIVES OF THE COURSE

- To understand the importance of presenting oneself
- To apprehend the significance of Etiquettes during various situations

Unit 1	Importance of Grooming and Posture	(11 hrs.)
	1.1 Dress and Accessories	
	1.2 Face Hands and Feet	
	1.3 Hair Styling	
	1.4 Standing, Sitting and Walking	
	1.5 Gestures	
Unit 2	Listening and Speech	(10 hrs.)
	2.1 Types of Listening: Active, Passive and Retention	
	2.2 Listening for Communicating	
	2.3 Voice: Tone, Pitch and Modulation	
	2.4 Telephone Techniques	
	2.5 Mike Techniques	
Unit 3	Preparation of Bio-data and Job Application	(11 hrs.)
	3.1 Searching for Job Opportunities	
	3.2 Basics of Bio-Data: Demographics, Personal and Professional Data	
	3.3 Preparation of Job Application	
	3.4 Post Interview	
Unit 4	Interview and Group Discussion	(10 hrs.)
	4.1 Interview: How to Prepare for an Interview	
	4.2 How to Behave and Face an Interview	
	4.3 Group Discussion: Meaning and Elements	
	4.4 How to Start and Participate in a Group Discussion	
Unit 5	Communication	(11 hrs.)
	5.1 Written: Writing a Statement of Purpose	
	5.2 Oral: Speaking with Confidence	
	5.3 Electronic Media: Preparing a Web Page	

BOOKS FOR REFERENCE

Post, Emily. *Etiquette*. New York : Funk and Wagnalls, 2005.

Sara Dorothy. *The Collier Quick and Easy guide to Etiquette*. New York: Collier Books, 2010

Robinson, D. *Business Etiquette : Your Complete Guide to Correct Behaviour in Business*. New Delhi: Kogan Page, 2006.

Beatty, H. Richard. *The Interview Kit*. New York: John Wiley, 2006.

Beatty, H. Richard. *175High – Impact Cover Letters*. New York: John Wiley, 2005

Fry, Ron. *Your First Resume*. New Jersey: Career, 2009.

JOURNALS

Public Relations Ethics and Professionalism: The Shadow of Excellence: Johanna Fawkes

Public Relations Review - A Global Journal of Research and Comment: Ray Hiebert

Improving Educational and Professional Standards of Public Relations Professionalism: Zulhamri Abdullah

Journal of Communication Management: Emerald Group Publishing Limited

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component

List of evaluation modes:

Seminars

Presentations

Assignments/ Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (Two out of four to be answered)

STELLA MARISCOLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS
(Effective from the academic year 2015 - 2016)**

CREATIVE PUBLIC RELATIONS

CODE: 15PR/PE/CP14

CREDITS: 4

L T P : 103

TOTAL TEACHING HOURS:52

OBJECTIVES OF THE COURSE

- To comprehend the variety of communication theories and practices
- To develop skills in utilizing communication tools in inter and group communication
- To gain software knowledge on designing using various software

Unit 1
Introduction (10hrs.)
1.1 Theory of Colours
1.2 Elements and Principles of Design

Unit 2
Software (10hrs.)
2.1 Introduction to Photoshop and Corel Draw- Tools&Menu of the Software

Unit 3
Corporate Identity Manual (11hrs.)
3.1 Abstract Logo, Embargo, Trademark
3.2 Emblem, Symbol, Monogram

Unit 4
Application of Software -1 (11hrs.)
4.1 Making of Visiting Cards, Letterheads, Brochures

Unit 5
Application of Software - 2 (10hrs.)
5.1 Making of Newsletters, Package Designing and Merchandising

BOOKS FOR REFERENCE

Philip Andrews ;*Adobe Photoshop CS3 A-Z: Tools and features illustrated ready reference* – (N.D)

Barbara Obermeier; *Photoshop CS3 All-in-One Desk Reference For Dummies*; (N.D)

Joshua Philip; *Graphic Design With CorelDRAW Graphics Suite X4*

JOURNALS

International Journal of Event and Festival Management - Emerald Group Publishing

Journal of Advertising and, Public Relations and Marketing:

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

- Designing logos and creating layouts for visiting card and letterheads using software
- Designing newsletters, brochures, and packages

Third Component

List of evaluation modes:

Logo Designing

Brand Promotions

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

To produce a project report with various logos, templates visiting cards, letterheads, brochures, and do merchandising for a brand.

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

DIGITAL PUBLIC RELATIONS

CODE: 15PR/PE/DP14

CREDITS: 4

L T P: 400

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the basic premises and fundamental concepts of Digital Public Relations
- To maximise the opportunities of online Public Relations and minimise the risks of social media

Unit 1

Introduction to Digital PR (11 hrs.)

- 1.1 Definition and Significance of Digital PR
- 1.2 Strategies and Tactics of Digital PR
- 1.3 Penetration of Social Media in India
- 1.4 Demographic and Psychographic Profile of Users
- 1.5 Use of Social Media by Business Enterprises: Government, NGO, Corporate and Service Sectors.

Unit 2

Online PR Drives and Modern Media Relations (10 hrs.)

- 2.1 PR Skills for a Modern Practitioner
- 2.2 Digital Marketing Collaterals
- 2.3 B2B and B2C Marketing with Social Media Campaigns
- 2.4 Pitching Online Media and Blogs, Media Contacts
- 2.5 Social Media News Release and News Rooms

Unit 3

Tools of Digital PR (10 hrs.)

- 3.1 Trends and Campaigns on Facebook, Twitter, LinkedIn, YouTube
- 3.2 Blogs, Podcasting, Book Marking
- 3.3 Photo Sharing and Social Sharing
- 3.4 Live Video Streaming

Unit 4

Online Communication Strategy (11hrs.)

- 4.1 Setting Objectives, Identifying Audiences, Influencers and Stakeholders
- 4.2 Use of Appropriate Social Media Tools and Platforms
- 4.3 Developing Messages in the Right Tone and Style
- 4.4 Developing Strategies for Multiple Countries and Brands

Unit 5

Research and Evaluation Process

(10hrs.)

5.1 Introduction to Internet Search with Key Words, Search Engine Optimization

5.2 Google Analytics and Google Trends

5.3 Navigation: Connectivity of Links to Sub Links

5.4 Reach of Tools: Hits/ Like/ Tweets/ Comments

5.5 Page Composition with Logo, Text, Placement, Positioning, Prominence and Size of the Copy.

BOOKS FOR REFERENCE

Hutchisan, Sawyer, *Using Information Technology: A Practical Introduction to Computer and Communication*, TataMccraw-Hill Publications, 2005.

Tweow, J., *Newspapers And Media Convergence* 2nd Ed, 2005.

Heath, Steven, *Multimedia and Communication Technology*, Focal Press Publication, 2006.

Straubhaar, J. and LaRose, R.; *Communication Media in the Information Society*, Wadsworth Publication, 2006

JOURNALS

Stuart Bruce, Online PR, Digital Public Affairs and Online Corporate Communications, (n.d.)

Elsevier, Call for paper on the Special Issue, New Digital Publics, (n.d.)

Rhian Morgans, What Is Digital PR

A Review of the Impact of New Media on Public Relations: Melanie James

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component:

List of evaluation modes:

Seminars

Group discussion

Assignments / Case studies

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

EVENT MANAGEMENT

CODE: 15PR/PE/EM14

CREDITS: 4

L T P: 4 0 0

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To understand the components of Event Management
- To give an insight about Event Marketing in today's business scenario

Unit 1

Introduction to Event Management (10 hrs.)

- 1.1 Introduction: Events, Event Management, Event Designing, Event Reach, 5C's of Event Management
- 1.2 Event Types, Elements of Events, Event as a Tool for Marketing
- 1.3 Event Target Audience, Clients, Event Organizers, Venue, Media and Exhibits

Unit 2

Event Marketing (11 hrs.)

- 2.1 Introduction to Event Marketing, Understanding Clients and Customers, Trends in Event Marketing
- 2.2 Marketing Events: Association Meetings, Conferences, Events, Expositions, Corporate Meetings, Products, Services, Festivals, Fairs

Unit 3

Event Promotion and Planning (11 hrs.)

- 3.1 Promotion in Events – Print, Radio, Television, New Medium, Outdoor, Direct Marketing, PR, Sales Promotion, Merchandising, Sponsorship, Other means of Publicity
- 3.2 Planning an Event: Pre-Event, Event, Post-Event Management
- 3.3 Practical: Planning an Online Event

Unit 4

Special Event Administration (10hrs.)

- 4.1 Definition and Introduction to Special Events – Key Elements, Budgeting Strategy, Identifying the Market,
- 4.2 Special Event Planning and Administration
- 4.3 Special Events – Case Study

Unit 5

Evaluation (10 hrs.)

- 5.1 Evaluation of Event Performance – Basic Evaluation Process, Objective Evaluation
- 5.2 Event Evaluation: Event Organisers View Point, Client's Point of View, Correcting Deviations and Innovations

BOOKS FOR STUDY

Sachdeva, I. *Public Relations Principles and Practices*. New Delhi: Oxford University Press, 2009.

Hoyle, Leonard. *Event Marketing*. 2nd Ed. USA: John Wiley & Sons, Inc, 2005.

Wendroff, Alan. *Special Events-Proven Strategies for Non Profit Fundraising*. 2nd Ed. USA: John Wiley & Sons, Inc, 2006.

JOURNAL:

International Journal of Event and Festival Management - Emerald Group Publishing, (n.d.)

Event Management - Cognizant Communication Corporation, (n.d.)

International Journal of Hospitality and Event Management - Inderscience Publishers, (n.d.)

Festival Management and Event Tourism - Cognizant Communication Corporation, (n.d.)

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component:

Project proposal

Seminars

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A –10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS**

(Effective from the academic year 2015 - 2016)

MEDIA MANAGEMENT

CODE: 15PR/PE/MM14

CREDITS : 4

L T P: 400

TOTAL TEACHING HOURS: 52

OBJECTIVES OF THE COURSE

- To gain knowledge on managing media organization
- To enable students in handling media organization and its strategic situations

Unit 1

Introduction to Media Management (10hrs.)

- 1.1 Media as an Organisation
- 1.2 Media Managers Roles and Responsibilities
- 1.3 Theories of Management and Management Skills

Unit 2

Media Economics (11hrs.)

- 2.1 Types of Economics
- 2.2 Understanding the Markets, Types of Market Structures- Monopoly, Oligopoly, Perfect Competition
- 2.3 Cross Media Ownership

Unit 3

Newspaper and Magazine Organisation and Management (11hrs.)

- 3.1 Organisation Structure, Economic and Financial Aspects
- 3.2 Sales, Subscription, Circulation – Figures and Distribution
- 3.3 Advertisements and Promotions
- 3.4 Ownership Pattern and its Impact

Unit 4

Electronic Media Management (10hrs.)

- 4.1 Organisation Structure
- 4.2 Economics and Financial Aspects
- 4.3 Demands for Advertising, Selling Time, Key Operators
- 4.4 TRP, Marketing Vs. Funding Programmes

Unit 5

Online Media Management (10hrs.)

- 5.1 Converging Technologies, Techniques of Information Management
- 5.2 Digital Economic Tools
- 5.3 Rating of Blogs, Cost Per Impression, Click Throughs

BOOKS FOR REFERENCES

Peter.K.Pringle, Michael F.Stair& William E.Mc.Cacitt, *Electronic media management*

John R.Rossiter & Larry Percy. *Advertising and promotion management*,Mc Graw Hill, Newyork

Sachdeva, I. *Public Relations Principles and Practices*. New Delhi: Oxford University Press, 2009.

Wendroff, Alan. *Special Events-Proven Strategies for Non Profit Fundraising*. 2nd Ed. USA: John Wiley & Sons, Inc, 2006.

Hoyle, Leonard. *Event Marketing*.2nd Ed. USA: John Wiley & Sons, Inc, 2005.

Barry G.Sherman, *Telecommunication and management– The broadcast and cable industries*, Mc Graw Hill, (n.d.)

Richard gates, *production management for film and video focal Press*, London, (n.d.)

JOURNAL

Media Management and Economics Research in a Transmedia Environment: Alan B. Albarran

Journal of Media Management: Daryn Moody

The International Journal on Media Management: Dan Shaver

The Journal of Media Innovations: Charles Melvin

MediaManagement in Theory and Practice: Bozena I. Mierzejewska

PATTERN OF EVALUATION

Continuous Assessment:

Total Marks: 50

Duration: 90 mins.

Section A – 3x2 =6 marks (Answer all the questions)

Section B – 3x8=24 marks (Answer any Three questions out of Five)

Section C – 1x20=20 marks (Answer any one question out of Two)

Third Component:

Project Proposal

Case Studies

Assignments

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A –10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks(One out of Two to be answered)

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI - 600 086

**M.A. DEGREE: PUBLIC RELATIONS
SYLLABUS
(Effective from the academic year 2015 - 2016)**

GLOBAL PUBLIC RELATIONS

CODE: 15PR/PI/GP24

CREDITS : 4

OBJECTIVES OF THE COURSE

- To understand the basic premises and fundamental concepts of Public Relations
- To understand the Public Relations scenario worldwide

Unit 1

Global Public Relations: Conceptual Framework

- 1.1 Theoretical Framework for Global Public Relations
- 1.2 Political Economy and Public Relations
- 1.3 Relationship Between Culture and Public Relations

Unit 2

Media and Public Relations: Global Scenario

- 2.1 Traditional Media and Public Relations
- 2.2 Mass Media and Public Relations
- 2.3 Digital Medium and Public Relations

Unit 3

Public Relations in the American Countries

- 3.1 Public Relations in the United States Of America
- 3.2 Public Relations in Canada
- 3.3 Public Relations in Mexico

Unit 4

Public Relations in Europe

- 4.1 Public Relations in UK
- 4.2 Public Relations in France
- 4.3 Public Relations in Germany

Unit 5

Public Relations in Asia – Pacific Region

- 5.1 Public Relations in China, Japan and Australia
- 5.2 Public relations in India
- 5.3 Public Relations in Thailand, Singapore

BOOKS FOR STUDY

- Bardhan, Nilanjana and C. Kay Weaver (Eds). *Public Relations in Global Cultural Contexts: Multi-Paradigmatic Perspectives*. New York and London: Routledge, 2011.
- Black, Sam. *Practical Public Relations*. New Delhi: Universal, 2005.
- Cutlip, S.M., A.H. Center and G.M. Broom. *Effective Public Relations*. New Jersey : Pearson Education, 2006.
- Darrow, R.W., D.J. Forrestal and A.D. Cookman. *The Dartnell Public Relations – Handbook* Chicago and London: Dartnell, 2007.
- McKee, Kathy .B and L.F. Lamb. *Applied Public Relations: Cases in Stakeholder Management*. New York and London: Routledge, 2009.
- Sriramesh K. *Public Relations in Asia-An Anthology*. USA: Thomson, 2006.
- Sriramesh K. and Dejan Vercic. *The Global Public Relations Handbook. Revised Ed.* New York and London: Routledge, 2009.
- Stephenson, H. *Handbook of Public Relations: The Standard Guide to Public Affairs and Communications*. New Jersey: McGraw Hill, 2011.
- Swann, Patricia. *Cases in Public Relations Management*. New York and London: Routledge, 2010.

BOOKS FOR REFERENCE

- Harrison, Shirley. *Public Relations: An Introduction*. U.K.: Thomson Learning, 2008.
- Black, Sam. *Practical Public Relations*. New Delhi: Universal, 2005.
- Moss, D and Santo De Barbara (Eds). *Public Relations Cases: International Perspectives*. London and New York: Routledge Taylor and Francis Group, 2009.
- Marconi, J. *Public Relations: The Complete Guide*. U.K.: Thomson and Racom Communications, 2006.
- Wilcox, D.L, P.H. Ault, and W.K.Agree. *Public Relations*. New York: Longman, 2007.
- Lesly, P. *Handbook of Public Relations & Communications*. Mumbai: Jaico, 2008.

JOURNALS

Key messages in public relations campaigns: Melanie James

Exploring the Concept of Mindfulness in Public Relations Practice: Douglas J. Swanson,
Ed. D

Asia Pacific Public Relations Journal: Public Relations Institute of Australia

Public Relations Journal – Public Relations Society of America

Public Relations Inquiry (online): SAGE Publications

PATTERN OF EVALUATION

End Semester Examination

Total Marks: 100

Duration: 3 hours

Section A – 10x2=20 marks (Answer all the questions)

Section B – 5x8=40 marks (Five out of Eight to be answered)

Section C – 2x20=40 marks (One out of Two to be answered)