Course Code	Title		
22U3FSE604	Discipline Specific Elective -II (A) - Fundamentals of research		
Semester: VI	Credits: 4	CIA : 50 Marks	ESE : 50 Marks
Course Objective	1. Understand the research terminology and research ethics. 2. Identify the components of a literature review process		
Course Category	Skill development		
Development Needs	Global		
Course Description	It helps to acquire knowledge about research development in food sector		

Course Outcomes		Teaching Methods	Assessment Methods
CO 1	Understand the basic knowledge of research process.	Lecture-based instruction	Seminar
CO 2	Classify ethical dilemmas faced by international and domestic researchers and the importance of scientific integrity in research.	Activity based Teaching	Group activity
CO 3	Apply Quantitative and Qualitative Research	Survey techniques	Seminar
CO 4	Examine the fundamental of sampling method	E-modules	Assignment
CO 5	Create the best practices of study design and proposal development	Experiment based teaching	Project

Offered by	Food Science and Nutrition
Course Content	Instructional Hours / Week: 4

Unit	Description	Text Book	Chapters
I	**Foundations of Research:** Introduction to Research- Empiricism, deductive and inductive theory. Basic characteristics of scientific method - Research Process- Research Ethics and Integrity- Critical appraisal. Finding the right journal-Open access and fees-Predatory publishing-Manuscript writing-Review of literature.	1	3
	Instructional Hours		12
Suggested Learning Methods: Group activity, Research poster			
II	Fundamental concepts of identification & formulation of research problem– Research Question – Hypothesis. Fundamentals of Sampling: Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, Non Response. Probability Sample – Simple Random Sample, Systematic Sample, Stratified Random Sample	1,2	2
	Instructional Hours		12
Suggested Learning Methods: Group discussion, Peer learning			
III	**Quantitative Research :** Introduction to Quantitative Research, Study Designs and Methods-Analysis and Interpretation of Quantitative Data- Critical Appraisal of Quantitative Research. **Qualitative Research:** Introduction to Qualitative Research, Study Designs and Methods-Analysis and Interpretation of Qualitative Data-Critical Appraisal of Qualitative Research.	1,2	2 & 5
	Instructional Hours		12
Suggested Learning Methods: Experimental learning, case studies			

IV	Basic data analysis: Data Preparation – Univariate analysis (frequency tables, bar charts, pie charts, percentages) –Mean, Median , Mode, Standard deviation, ANOVA. Mixed Methods Research Introduction to Mixed Methods Research, Study Designs and Methods- Analysis and Interpretation of Mixed Methods Data - Critical Appraisal of Mixed Methods Research	2	6
		Instructional Hours	**12**
Suggested Learning Methods: Assignment, Model preparation			
V	**Patent**–definition, requirements, patent laws India, administrator, need for patent system, advantages, patent procedures **Related practical** Data analysis and presentation using Ms.Excel, SPSS and RSM Conducting Research Responsibly: Ethical issues related to publishing - IRB-Human subjects-Plagiarism	3	4
		Instructional Hours	**12**
Suggested Learning Methods: Experimental learning, Research proposals			
		Total Hours	**60**

Text Books	1. Creswell, J. W. Research design: Qualitative, quantitative and mixed methods approaches. 5th Ed. Thousand Oaks, CA: Sage, 2018. 2. Kothari,C.R.Research Methodology: Methods and Techniques, New age International Publications,4thEdition,2018 3. Turabian, K.L. 2007. A Manual for Writers of Research Papers, Theses, and Dissertations. University of Chicago Press. 7th ed
Reference Books	1. Shanthi Sophia Bharathi, Computer Oriented Statistical Methods/ Probability and Statistics, Chanilatha Publications, Second Edition, 2000. 2. Donald,H.Mc.Burney, Research Methods, Fifth Edition, Thomson and Wads worth Publications,2002
Journals	1. Journal of research statistics in social science 2. The journal of fundamentals and comparative research.

Tools for Assessment (50 Marks)

CIAI	CIAII	CIA III	Seminar	Case studies	Mini Project	Total
8	8	10	8	8	8	50

Mapping

CO \PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M		M			M		M	M	M	L	H	H
CO2	M			H	M				M	L	L	H	M
CO3	M	M		H	M	M	M		L	M	M	M	H
CO4	L	H	M	M			H	M	L	H	H	H	H
CO5	M	M			M	M			M	L	L	H	L

H-High; M-Medium; L-Low

Course designed by	Verified by
A.DHEEBA	Dr. A. Sivagnanaththy

Course Code	Title		
22PGSWC308 / 21PGSWC308	Paper VIII- Research Methodology for Social Work		
Semester: III	Credits: 4	CIA: 50 Marks	ESE: 50 Marks

Course Objective	To introduce the concept of research and to analyze the statistical data.
Course Category	Skill Development / Employability
Development Needs	National
Course Description	Provides an introduction to research methodologies in education, both Qualitative and Quantitative.

Course Outcomes		Teaching Methods	Assessment Methods
CO 1	Knowing the basic elements of Social Work Research.	Lecture	Seminar
CO 2	Knowing about the different steps of Social Work Research	Case Study	Data Analysis
CO 3	Enriching them to undertake a Scientific Research Study	Role Play	Assignment
CO 4	Understanding the method of Research Analysis.	Case Study	Data Analysis
CO 5	Knowing about the different statistical applications in Social Work Research	Lecture	Assignment

Offered by	Social Work

Course Content	Instructional Hours / Week : 4

Unit	Description	Text Book	Chapters
I	Social work research - Concept, definitions, objective, functions. Steps in research. Hypothesis: Scope, Meaning and importance of hypothesis source formulation, attributes of hypothesis and types.	1	1
		Instructional Hours	**12**
Suggested Learning Methods : Seminar			
II	Research Design- concept, Type, Exploratory, Formulative, Descriptive, Diagnostic, Experimental, Evaluative, Case Study, Characteristics of Research , Difference between Quantitative and Qualitative research	1	2
		Instructional Hours	12
Suggested Learning Methods : Assignment			
III	Sources and methods of data collection: Primary and secondary. Observation and survey method, interview schedule, questionnaire: construction of questionnaire, content, types of questions, personal interview and mailed questionnaire. Sampling: definition, principles. Types and procedures, Population and Universe. Scaling Techniques, concepts and types .Validity and Reliability.	1	3
		Instructional Hours	12
Suggested Learning Methods : Data Analysis			

IV	Statistical application: Measures of central tendency - Mean, median, mode. Measures of dispersion - Standard Deviation. Testing of hypothesis - Chi-square test, T-test, Association and correlation.	1	4
		Instructional Hours	12
Suggested Learning Methods : Data Analysis			
V	Method of Analysis: Quantitative Analysis and Qualitative Analysis, Content Analysis and case analysis. Statistical Analysis. Uses of computer for SWR, SPSS. Reporting: Format and references, Mixed Methods.	1	5
		Instructional Hours	12
Suggested Learning Methods : Data Analysis			
		Total Hours	60 Hrs

Text Books	1.Dr. A Sajeevan Rao and Dr. Deepak Tyag, **Research Methodology with SPSS,** SreeNiwan Publication,2009. 2.B N Ghosh, **Scientific Method and Social Research,** Sterling Publishers,1982. **3.**Allen Rubin, Earl Babbie, **Research Methods for Social Work.** Brooks/Cole Publishing Company,1993.
Reference Books	1.Margaret Alston, Wend Bowles, **Research for Social Workers**. Rawat Publications,2003. 2.Dr. D. K. Laldas, **Doing Social Research**, Published by Gyan Books, Delhi,2008. 3.C R Kothari. **Research Methodology (Methods and Techniques),** New Age International Publishers,2004
Web. URLs	https://ecu.au.libguides.com

Tools for Assessment (50 Marks)

CIA I	CIA II	CIA III	Assignment	Data Analysis	Seminar	Total
8	8	10	8	8	8	50

Mapping

CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	L	M	M	M	H	L	M	M	H	L	M
CO2	M	H	M	L	M	M	H	M	L	M	H	M	L
CO3	H	M	M	L	M	H	H	M	L	H	H	M	L
CO4	M	H	M	L	M	M	H	M	L	M	H	M	L
CO5	M	H	M	L	M	M	H	M	L	H	H	M	L

H-High; M-Medium; L-Low

Course designed by	Verified by
(Dr. P. Nathiya)	(Dr. P. Nathiya)

Course Code	Title		
22PGBTE103	Elective Paper – I (C) Research Methodology		
Semester : I	Credits : 4	CIA : 50 Marks	ESE : 50 Marks
Course Objective	The primary objective is to develop a research orientation among the students and to acquaint them with fundamentals of research methods. Specifically, introducing them to the basic concepts used in research and to scientific social research methods and their approach		
Course Category	Skill development and Employability		
Development Needs	Global		
Course Description	The goals of this course is to help and encourage students completely understand basic concepts and methods of quantitative empirical research and to stimulate their interests to learn more about the research. At the end of the course, students will be equipped with basic and applied research methodology.		

	Course Outcomes	Teaching Methods	Assessment Methods
CO1	Basic framework of research process	Video lessons	Assignment
CO2	Various research designs and technique	Review Article based lessons	Assignment
CO3	Various sources of information for literature review and data collection	Research articles based lessons	Seminar
CO4	Ethical dimensions of conducting applied research Appreciate the components of scholarly writing and evaluate its quality	Lectures / Hands on training	Writing skill test
CO5	Procedure for writing research proposal and grant	Lectures / Online based teaching	Online searching test

Course Offered by Biotechnology

Course Content — **Instruction Hours /Week : 4**

Unit	Description	Text Book	Chapter
I	**Objective and Steps in Research process**: Definition, objectives of research. Types and its significance. Steps in research process. Criteria for good research. Defining and formulating a research problem. Literature survey, Development of working hypothesis.	1	1, 2
		Instructional Hours	12
Suggested Learning Methods: Presentation and Video lectures of basic research process.			
II	Research design: Definition and related concepts, Basic principles of experimental designs- Informal and formal experimental designs Sampling design: Steps in sample design, Non-probability sampling and Probability sampling -random sampling; Measurement and scaling techniques- Methods of data collection.	1	3, 4,5
		Instructional Hours	12
Suggested Learning Methods: Practice in field study, sample collection and preservation methods.			

III	Sources of Data: Primary Data, Secondary Data; Procedure Questionnaire: Sampling Merits and Demerits - Experiments - Kinds - Procedure; Procedure Schedules: Sampling Merits and Demerits - Experiments - Kinds - Procedure; Control Observation: Merits - Demerits - Kinds - Procedure - Sampling Errors: Type-I Error, Type-II Error	1	6, 9
		Instructional Hours	**12**
Suggested Learning Methods: Data processing techniques by statistical tools and data interpretation methods through computer software.			
IV	Research report writing: steps in report writing layout of the Research Report, Types of Reports, Styles of reporting. Editing and evaluation of final draft, evaluating the final draft; Editing and evaluation of final draft, evaluating the final draft	1 & 2	14, 10, 20
		Instructional Hours	**12**
Suggested Learning Methods: Hand-on training on writing skills such as, report and article writing.			
V	**Research proposal/Grant**: Presentation of data - preparation of master's thesis for oral presentation; Presenting the research findings in open defense. Research proposal/Grant- definition, structure, budget allocation, specific aims, background and significance. Hierarchy of funding agencies in India and their operations.	2	20
		Instructional Hours	**12**
Suggested Learning Methods: Awareness on funding agencies and training to write the proposals.			
		Total Hours	**60**

Text Books	1. Kothari, C.R., Research Methodology: Methods and Techniques, New Age International Publishers, 2nd Edition, 2010. 2. Chawla Deepak &SondhiNeena., Research Methodology: Concepts and Cases, Vikas Publishing House Pvt. Ltd. Delhi, 2011
Reference Books	1. Gurumani, N., Research Methodology for Biological Science, MJP Publishers, Chennai, 2006. 2. Rt. Kumar, Research Methodology: A Step-by-Step Guide for Beginners, SAGE pub., 2010. 3. C. R. Kothari, Research Methodology: Methods and Techniques, New Age Intl., 1985
Web. URLs	1. https://onlinelibrary.wiley.com/doi/book/10.1002/97811187630252. 2. https://mtechlib.files.wordpress.com/

Tools for Assignment (50 Marks)						
CIA I	CIA II	CIA III	Seminar	Viva voce	Case study	Total
8	8	10	8	8	8	50

Mapping

CO\ PO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	L	L	H	M	L	M	M	L	H	L	L	M	H
CO2	M	L	L	M	M	L	L	L	H	M	M	M	H
CO3	L	L	M	M	L	L	L	M	L	M	M	M	L
CO4	L	L	M	M	L	L	M	H	L	L	M	M	H
CO5	M	M	L	L	L	M	M	M	H	M	H	M	L

H-High; M-Medium; L-Low

Course designed by	Verified by
P. Thiru	N. Ramya
Dr. P. Thiruvenkatasamy	Dr. N. SARANYA

Course Code	Title		
22PGENC315	Paper XV Research Methodology		
Semester: III	Credits: 4	CIA: 50 Marks	ESE:50 Marks

Course Objective	To enable the students to understand the various methods involved in writing a research paper.
Course Category	Employability
Development Needs	Global
Course Description	EMP: Gains knowledge in language and documentation

Course Outcomes		Teaching Methods	Assessment Methods
CO 1	To know about the fundamentals of Research Methodology.	Lecture Method	**Assignments**
CO 2	Understand various strategies in thesis writing.	CLL Method	**Assignments**
CO 3	Demonstrate the format of thesis writing.	Audio-Lingual Method	**Seminars**
CO 4	Analyze critical perspectives of research.	Structural Method	**Seminars**
CO 5	Evaluate the research projects.	Demonstration Method	**Reviews**

Offered by Department of English

Course Content **Instructional Hours / Week : 5**

Unit	Description	Text Book	Chapters
I	**Principles of MLA Style** From Introduction to Title of Sources	1	1-29
		Instructional Hours	15
Suggested Learning Methods: Linguistic Method			
II	Principles of MLA Style From Title of Container to In- text Citations	1	30 – 58
		Instructional Hours	15
Suggested Learning Methods :CLL Method			
III	**Details of MLA Style** From Mechanics of Scholarly Prose to Translations of Quotations	1	61-91
		Instructional Hours	15
Suggested Learning Methods : Audio-lingual Method			

IV	**Details of MLA Style** From Numbers to Translation of Titles	1	92-106
		Instructional Hours	15
Suggested Learning Methods : Structural Method			
V	From Versions to Citations in forms other than Print	1	107 - 128
		Instructional Hours	15
Suggested Learning Methods : Grammar Translation Method			
		Total Hours	75 Hrs

Text Books	1.MLA Handbook for Writers of Research Papers, 8th edition, Modern Language Association of America, 2009.
Reference Books	1. J.Anderson, B.H.Durston and M.Poole, Thesis and Assignment Writing, Wiley Eastern Ltd, New Delhi, 1970.
Web. URLs	

Tools for Assessment (50 Marks)

CIA I	CIA II	CIA III	Journal Publicaation	Presentation	Seminar	Total
8	8	10	8	8	8	50

Mapping

CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	M	H	L	M	M	H	L	M	L	M	M	M	M
CO2	M	M	L	M	M	M	L	M	L	M	M	M	M
CO3	H	H	M	M	M	H	L	M	L	M	M	M	M
CO4	H	M	M	M	M	H	L	M	L	M	M	M	M
CO5	M	M	M	M	M	M	L	M	L	M	M	M	M

H-High; M-Medium; L-Low

Course designed by	Verified by
Mr. D. PRADEEK.	

Course Code	Title		
22PGFNC310/ 21PGFNC310	Core Paper X - Research Methodology and Statistics		
Semester: III	Credits: 4	CIA : 50 Marks	ESE : 50 Marks
Course Objective	To Understand the principles and methods of research. To Apply statistical procedure analyzes numerical data and draw inferences.		
Course Category	Skill Development		
Development Needs	Global		
Course Description	It helps to acquire knowledge about research development in food sector		

Course Outcomes		Teaching Methods	Assessment Methods
CO 1	Distinguish between research objectives and sampling methods	Lecture-based instruction	Seminar
CO 2	Identify different data collection methods	Survey Techniques	Case studies
CO 3	Critically evaluate the research designs and apply appropriate statistical analysis	Survey Techniques	Seminar
CO 4	Critically evaluate the research designs and apply appropriate statistical analysis	Activity based Teaching	Assignment
CO 5	Analyse data statistically using ICT tools	Experiment based teaching	Project

Offered by Department of Food Science and Nutrition

Course Content **Instructional Hours / Week: 5**

Unit	Description	Text Book	Chapters
I	**Research types and sampling methods:** Meaning of research, objectives of research, types of research and their application, selection and formulation of research problems, hypothesis, designing a research—different types, census and sample method, theoretical basis of sampling, sampling methods — random sampling methods and non-random sampling methods, sizeof sample, sampling and non sampling errors.	1	3
	Instructional Hours		**15**
Suggested Learning Methods: Group activity, Research poster			
II	**Methods of Collecting Data:** Questionnaire, preparation of schedules, interview method, case study method, experimentation method, sources of secondary data, precautions while using secondary data. **Editing and Coding the Data Organization of Data** – Classification – meaning and objectives, types of classification, formation of discrete and continuous frequency distribution, tabulation – role, part of a table, general rules of tabulation, types of tables	1,2	5
	Instructional Hours		**15**
Suggested Learning Methods: Group discussion, Peer learning			
III	Representation of Data: Diagrammatic and graphical representation – significance of diagrams and graphs – general rules for constructing diagrams – types of diagrams, graphs of time series, graphs of frequency distribution. Interpretation and Report Writing–Meaning of interpretation, technique, precautions, format of research report, types, steps and stages, mechanism and style, precautions and essentials for good report, foot notes and bibliographical citations.	1,2	2 & 5

		Instructional Hours	**15**
Suggested Learning Methods: Experimental learning, case studies			
IV	Measures of Central Tendency: Mean, median, mode, the irrelative advantages and disadvantages. Measures of dispersion — mean deviation, standard deviation, quartile deviation. Co-efficient of variation, percentile and percentile ranks. Association of attributes, contingency tables, correlation, coefficient of correlation and its interpretation, rank correlation, regression equations and predictions.	2	6
		Instructional Hours	**15**
Suggested Learning Methods: Assignment, Model preparation			
V	Probability – Rules of probability and its applications. Distribution –normal, binomial, their properties, importance of these distributions in statistical studies. Tests of significance– large and small samples, _t'chi- square test. Analysis of variance– one-way and two-way classification. **Related practical** Data analysis and presentation using Ms.Excel, SPSS and RSM	1,2	6 & 5
		Instructional Hours	**15**
Suggested Learning Methods: Mini project, class presentation			
		Total Hours	**75**

Text Books	1. Kothari,C.R.Research Methodology: Methods and Techniques, New age International Publications,4th Edition,2018. 2. Gupta,S.F.,Statistical Methods, Sultana Chand and Sons,3lRevises Edition,2002
Reference Books	1. Shanthi Sophia Bharathi, Computer Oriented Statistical Methods/ Probability and Statistics, Chanilatha Publications, Second Edition, 2000. 2. Donald,H.Mc.Burney, Research Methods, Fifth Edition, Thomson and Wads worth Publications,2002
Journals	1. Journal of research statistics in social science 2. The journal of fundamentals and comparative research

Tools for Assessment (50 Marks)

CIA I	CIA II	CIA III	Seminar	Performance in practical	Mini Project	Total
8	8	10	8	8	8	50

CO \PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	L	L	L			L			M	H	L	L	
CO2	M	M	L	L					H	H	M	L	L
CO3	H	H	H		M				H	H	L	L	L
CO4	H	H	H		H	H			H	H	L	L	H
CO5	H	H	H	L	H				H	H	M	M	H

H-High; M-Medium; L-Low

Course designed by
Dr. A. Swaminathan

Verified by
Dr. A. Swaminathan

Course Code	Title		
22PGMBC311	Paper XI – Biostatistics and Research Methodology		
Semester : III	Credits : 4	CIA : 50 Marks	ESE: 50 Marks

Course Objective	This course gives knowledge about designing the research project and various statistical applications in Research
Course Category	Skill Development
Development Needs	Global
Course Description	It provides a overview of Statistical methods for analyzing corrected data produced by longitudinal measures take over time

	Course Outcomes	Teaching Methods	Assessment Methods
CO 1	Describing the method of data collection, presentation and memorizing different Measures of Central Tendency and Measures of Dispersion	Group learning/ Lectures.	Seminar
CO 2	Identify the applications of Correlation and Regression co efficient.	Peer Teaching/ Lectures	Unit Test
CO 3	Distinguishing different Statistical situations using Sampling Techniques	Lectures/ Tutorial	Seminar
CO 4	Executing one way and two-way analysis using analysis of Variance and Experimental Design.	Video Lectures / Lectures	Assignment
CO 5	Critically Evaluate the Research Designs.	Group learning / Lectures	Quiz

Offered by ~~Department of~~ Mathematics

Course Content	Instructional Hours / Week :5

Unit	Description	Text Book	Chapters
I	Basic Concepts of Biostatistics: Scope of Biostatistics - Collection, Classification and Tabulation of Data. Graphical and diagrammatical representation – Scale diagram - Histogram- frequency curve.	1	1-3, 5-6
	Measures of Central Tendency: Arithmetic mean, Median, Mode. Measure of Dispersion: Range, Quartile Deviation, Standard Deviation and Co efficient of Variation.	1	7-8
		Instructional Hours	15
Suggested Learning Methods : Seminar			
II	Correlation: Definition – Scatter diagram-Karl Pearson's correlation co-efficient-Rank correlation co-efficient – Properties. Regression: Introduction – Construction of regression equations – Properties of regression.	1	10,11
		Instructional Hours	15
Suggested Learning Methods : Problem Solving Practise			
III	**Sampling Techniques:** Introduction- Methods of Sampling-Sampling and Non-Sampling errors.	2	4
	Testing of Hypothesis: Test of significance for large sample-Single mean & Difference between two means- Test of	1	Vol-II 3-

	significance for Small sample- Single mean & Difference between two means- Chi Square test- Goodness of fit- F-test.		5
		Instructional Hours	**15**
Suggested Learning Methods : Group Learning method			
IV	**Analysis of Variance:** One way and Two way Classifications.	1	Vol-II - 5
	Experimental Design – Introduction – Basic Concepts and Principles - Completely Randomized Design (CRD) - Randomized Complete Block Design(RCBD)	1	Vol-II - 6
		Instructional Hours	**15**
Suggested Learning Methods : https://youtu.be/0NwA9xxxtHw			
V	**Research Methodology** – Types of Research- Significance of Research. Research Problem - Selection of Research Problem – Formulation of Research Objectives - Project Design - Review of Literature Writing	2	1-3
		Instructional Hours	**15**
Suggested Learning Methods : Problem Solving Practice			
		Total Hours	**75**

Text Books	1. Gupta.S.P. **Statistical Methods**. Sulthan Chand and Sons. 2012. 2. Kothari. **Research Methodology: Methods and Techniques**. New Age International Pubishers. New Delhi. 2004.
Reference Books	1. S.C. Guptha and V. K. Kapoor. **Fundamentals of Mathematical Statistics**. Sulthan Chand and Sons. 11th Edition. 2002. 2. Sokal, R.R. and Rohlf, F.J. An **Introduction to Biostatistics**. W.H. Freeman and Company.1987. 3. Dr. P.N. Arora and Dr. P.K. Malhan, **Bio Statistics**, Himalaya Publishing House, Revised Edition, 2006 4. Irfan Ali Khan and Atiya Khanum, **Fundamentals of Biostatistics, Ukaaz publications**, Second Revised Edition, 2004
Web. URLs	1. https://nptel.ac.in/courses/102106051 2. https://youtu.be/xDWdJI_XT3k

Tools for Assessment (50 Marks)

CIA I	CIA II	CIA-III	Seminar	Class Participation	Periodical Quizzes	Total
8	8	10	8	8	8	50

Mapping

CO \ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	H	H	L	M	M	M	L	H	L	M	L	L	H
CO2	M	H	M	L	H	H	M	H	L	L	L	L	H
CO3	M	H	H	L	H	H	M	H	L	L	L	L	H
CO4	H	L	H	M	M	M	M	M	L	L	L	L	H
CO5	H	H	M	L	H	H	L	H	L	H	L	L	H

H-High; M-Medium; L-Low

Course designed by	Verified by
Dhana lakshmi. M	T. CHANDRAPRAKASH