



**KALASALINGAM**  
Academy of Research and Education  
**DEEMED TO BE UNIVERSITY**



Estd.U/S 3 of UGC Act 1956. Accredited by NAAC with "A" Grade

Anand Nagar, Krishnankoil - 626126. Srivilliputtur (Via), Virudhunagar (Dt), Tamil Nadu | info@kalasalingam.ac.in | www.kalasalingam.ac.in

# **M.B.A**

## **INSURANCE AND RISK MANAGEMENT**

### **(REGULATIONS 2018)**

## **CURRICULUM & SYLLABUS**

### **(CHOICE BASED CREDIT SYSTEM)**



**KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION**

**ANAND NAGAR, KRISHNANKOIL-626 126**

Phone No.04563-289042

Fax No.04563-289322

Website: [www.kalasalingam.ac.in](http://www.kalasalingam.ac.in)

# **PROGRAMME: MBA-INSURANCE AND RISK MANAGEMENT**

## **VISION**

To be a world class business school providing value based professional excellence

## **MISSION**

To create an excellent teaching and learning environment to impart quality education by focusing on nurturing innovation, entrepreneurship, research and ethics by enhancing their self-confidence, creative skills and professional expertise thereby developing leaders of competence, conscience, and compassion

## **PROGRAMME EDUCATIONAL OBJECTIVES**

<b>PEO1</b>	Graduates will have adequate skill for keen analysis with specialized risk management, project management and modeling focus.
<b>PEO2</b>	To develop professional competency among graduates to do research and lifelong learning for continuous growth and development.
<b>PEO3</b>	To transform graduates into responsible citizens and leaders to create positive impact on business through ethical, value based and environment friendly business solutions.

## **PROGRAM SPECIFIC OUTCOMES**

<b>PSO1</b>	Graduates should exhibit their knowledge of actuarial principles.
<b>PSO2</b>	Graduates should demonstrate their critical-thinking, analytical and problem solving skills.
<b>PSO3</b>	Graduates should manifest their leadership qualities.
<b>PSO4</b>	Graduates should be able to work in multidisciplinary teams.

## PROGRAMME OUTCOMES

<b>PO1</b>	<p><b>Business Knowledge:</b> An understanding of management and analytical skills using statistical tools and data mining techniques in fields of Finance, Insurance with special focus on risk management and therefore enabling enriched global business impact.</p>
<b>PO2</b>	<p><b>Critical Thinking and Problem Analysis:</b> Ability to Identify, Formulate and Analyze the contemporary issues in the business process by critical thinking to identify the best strategic alternatives.</p>
<b>PO3</b>	<p><b>Conduct investigations of complex Problems:</b> Conduct investigation using appropriate research design and analyze the qualitative and quantitative data by suitable research tools and techniques to solve the complex problem with detailed interpretation.</p>
<b>PO4</b>	<p><b>Strategic Decision Making and solutions:</b> Apply technology and Brain Storm the innovative ideas to enhance organizational efficiency and choose the optimal strategic decision for obtaining effective solutions</p>
<b>PO5</b>	<p><b>Modern tool usage:</b> Ability to utilize the advanced contemporary tools and techniques for predictive analysis and modeling of the complex business issues to sustain and flourish in the dynamic business environment.</p>
<b>PO6</b>	<p><b>Entrepreneurial Skills</b> Ability to business ideas, develop business plans, understand regulatory requirements, and locate sources of finance to start, manage and sustain new business ventures</p>
<b>PO7</b>	<p><b>Environment and sustainability:</b> Ability to understand the business environment and develop legal and ethical strategic plan that align with societal and environmental context for the purpose of sustainable development in the business.</p>
<b>PO8</b>	<p><b>Professional Integrity:</b> Ability to address the social, legal, cultural diversity issues through ethical and value based.</p>
<b>PO9</b>	<p><b>Team work:</b> Ability to function effectively on multi-disciplinary teams with extensive participation</p>
<b>PO10</b>	<p><b>Communication:</b> Ability to communicate effectively and clearly, to comprehend, write, prepare and make effective presentations.</p>
<b>PO11</b>	<p><b>Global Business Opportunities:</b> Ability to demonstrate the management principles and understand the diverse opportunities in the management functions and apply those as an Entrepreneur, Projects, field Work, Consultancy, and work in the Multidisciplinary business environment.</p>
<b>PO12</b>	<p><b>Life-long learning:</b> Ability to empathize the impact of changing management concepts and thoughts on society and create awareness of contemporary issues through independent and lifelong learning.</p>



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## MASTER OF BUSINESS ADMINISTRATION-IRM (REGULATIONS 2018) SCHEME OF INSTRUCTIONS

Course Code	Course Title	L	T	P	C
MBA18R5101	Accounting for Management	3	1	0	4
MBA18R5102	Economic Analysis for Business	4	0	0	4
MBA18R5104	Organizational Behavior	3	0	0	3
MBA18R5105	Principles of Management	3	0	0	3
MAS18R5101	Actuarial Probability and Statistics	3	1	0	4
MAS18R5102	Actuarial Financial Mathematics	3	1	0	4
MAS18R5103	Financial Engineering and Loss Reserving	3	1	0	4
MAS18R5104	Principles of Banking & Insurance	3	0	0	3
MBA18R5109	Applied Operation Research	3	1	0	4
MBA18R5110	Business Research Methods	3	0	0	3
MBA18R5111	Financial Management	3	0	0	3
MBA18R5112	Human Resource Management	3	0	0	3
MAS18R5105	Actuarial Financial Reporting	3	0	0	3
MAS18R5106	Life and Health contingencies	3	0	0	3
MAS18R5107	Survival Model Analysis	3	0	0	3
MAS18R5108	Risk Model Analysis	3	0	0	3
MBA18R5181	Data Analysis and Business modeling	0	0	4	2
MBA18R5201	Business Ethics-Corporate Governance-Corporate Social Responsibility	3	0	0	3
MBA18R5202	Strategic Management	3	0	0	3
MAS18R5201	Actuarial Risk Management Practice	3	0	0	3
MAS18R5202	Modelling and Communication Practice	3	0	0	3
MAS18R52xx	Elective - I	4	0	0	4
MAS18R52xx	Elective - II	4	0	0	4
MAS18R52xx	Elective - III	4	0	0	4
MAS18R52xx	Elective - IV	4	0	0	4
MBA18R5299	Project Work	0	0	20	10
<b>Practical Laboratory</b>					
MBA18R5282	Professional Skill Development	0	0	4	2
MBA18R5298	Industrial Training	0	0	12	6

**TOTAL NUMBER OF CREDITS = 102**

## Industrial Training

Industrial Training–The training report along with the company certificate should be submitted within the two weeks of their opening date of 3<sup>rd</sup>. The training report should be around 40 pages containing the details of training undergone, the departments wherein he was trained with duration (chronological diary), along with the type of managerial skills developed during training. The training report should be sent to the Controller of Examinations by the HOD through the Program Coordinator, before the last working day of the 3<sup>rd</sup>.

### LIST OF ELECTIVES

Course Code	Course Title	L	T	P	C
<b>GROUP I (INSURANCE SERVICES)</b>					
MAS18R5204	Pension and Other Employee Benefits	4	0	0	4
MAS18R5205	Business awareness module	4	0	0	4
MAS18R5206	FOREX management	4	0	0	4
MAS18R5207	Financial Economics	4	0	0	4
MAS18R5208	Asset and Liability Management	4	0	0	4
MAS18R5209	Insurance Product Design & Futures	4	0	0	4
<b>GROUP II (FINANCE &amp; BANKING SERVICES)</b>					
MBA18R5214	Financial Derivatives	4	0	0	4
MBA18R5215	Financial Institution and Services	4	0	0	4
MBA18R5218	Micro Finance	4	0	0	4
MBA18R5220	Security Analysis and Portfolio Management	4	0	0	4
MBA18R5266	Financial Inclusion	4	0	0	4
MBA18R5269	International Banking : Legal and Regulatory Aspects	4	0	0	4

## CATEGORY OF COURSES WITH NON-CGPA CREDIT

Sl. No.	Group	Sub. Code	Category	Non-CGPA Credit	Minimum Credit Requirements
1	Group-I	NCG18R501	Paper Presentation in Conferences	1	03
2		NCG18R502	Participation in Entrepreneurship Programs	1	
3		NCG18R503	Participation in any event in Management Meet	1	
4		NCG18R504	Certification Courses	1	
5	Group-II	NCG18R601	Industrial Lectures	1	
6		NCG18R602	Preparation of Business Plan	1	
7		NCG18R603	Research Based Projects	1	
8		NCG18R604	Publications in Journal	1	
9	Group-III	NCG18R701	Sports	1	
10		NCG18R702	Voluntary Services	1	
11		NCG18R703	Extra Curricular Activities	1	
12		NCG18R704	International Languages (French / German / Japanese etc.)	1	
Total				12	

\*Note: Students have to take at least one course from each of the groups 1-3.

# I

<b>MBA18R5101</b>	<b>ACCOUNTING FOR MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

## Course Objective(s):

The objective of the course is to acquaint the students with the language of Accounting and to develop in them the ability to evaluate and use accounting data as an aid to decision making. The main purpose is to assist the students in developing skills in Problem solving and decision making in the financial area. Emphasis is laid on analysis and utilization of financial and accounting data for planning and control.

## Course Outcome(s):

After completing this course, the student will be able to:

**CO1:** Understand the role of different branches of accounting i.e. Financial Accounting, Cost Accounting and Management Accounting and able to generate final account statements by applying GAAP.

**CO2:** Analyse and interpretation of income statement and Balance sheet.

**CO3:** Analyze the Financial Statements through various tools like ratio analysis, fund flow and cash flow etc

**CO4:** Prepare the cost statement; Apply budgetary control and Cost Volume Profit analysis tools as a controlling technique

**CO5:** Evaluate the overheads and other costs across various products.

## Mapping of Course Outcome(s):

CO / PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	S	S	M									
CO2			M									
CO3		M					L					
CO4		S	L									
CO5				L								

## Unit 1: Introduction and Basics of Accounting

**12 Hours**

Introduction - Generally Accepted Accounting Principles- Concepts and Conventions of Accounting - Types of Accounting – Book keeping - An Overview of Journal, Ledger, Trial Balance.

## Unit II: Financial Accounting

**12 Hours**

Preparation of Trading Account, Profit and Loss Account and Balance Sheet - Depreciation - Straight line and Diminishing Balance Method

## Unit III: Financial Statements

**12 Hours**

Financial Statements analysis - Objectives - Techniques of Financial Statement Analysis: Ratio analysis - Profitability Ratios, Solvency Ratios, Liquidity Ratios, and Turnover Ratios - Fund Flow statement - Cash Flow Statement (Basic problems)

**Unit IV: Budget and Budgetary Control**

**12 Hours**

Budget and Budgetary Control – Types of Budget: Cash Budget, Functional Budgets and Flexible Budget – Zero based budgeting

**Unit V Cost Accounting**

**12 Hours**

Cost Accounting: Meaning - objectives- Classification and Elements of Costs, Cost Concepts Preparation of Cost Sheet - Marginal Costing - Application of Marginal Costing Techniques in Managerial Decision Making: Cost Volume Profit Analysis, Break Even Analysis and Margin of safety.

**Text Book(s):**

1. Narayanaswamy.R, Financial Accounting: A Managerial Perspective, 5th Edition, Prentice Hall India Pvt., Ltd., New Delhi. 2016.
2. N.Ramachandran, Ram Kumar Kakani, “Financial Accounting for Management”, 4th Edition, New Delhi: Tata McGraw Hill, 2015
3. Karen W. Braun, Wendy M. Tietz, Managerial Accounting, 4th Edition, Pearson Publications, 2014

**Reference(s):**

1. Khan.M.Y and P.K.Jain, Management Accounting, 7<sup>th</sup> edition, Tata McGraw Hill publishing company Ltd., New Delhi, 2016.
2. Pillai.R.S.N and Bagavathi, Management Accounting, Revised edition, S.Chand and Co. Ltd., New Delhi, 2010.
3. Don Hansen, Maryanne Mowen, Management Accounting, 8<sup>th</sup> Edition, Cengage Learning, Delhi, 2007.



<b>MBA18R5102</b>	<b>ECONOMIC ANALYSIS FOR BUSINESS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

This course is designed to impart knowledge of the concepts and principles of Economics, which govern the functioning of a firm/organisation under different market conditions. It further aims at enhancing the understanding capabilities of students about macro-economic principles and decision making by business and government.

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1:** Examine basic economic problems facing society and apply theory to practical problems in a business context in order to obtain optimum solution.
- CO2:** Explore the business cycle implications and determine the interaction of demand and supply in the marketplace
- CO3:** Analyze the interrelationships between economic variables and evaluate the major economic aggregates and how they are measured
- CO4:** Design competition strategies, including costing, pricing, product differentiation, and market environment according to the natures of products and the structures of the markets.
- CO5:** Intends the understanding of various economics, social, legal and other factors that influence business in India.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>			S	L				M				
<b>CO2</b>	M					S		S				
<b>CO3</b>		L						S				
<b>CO4</b>			L			M						
<b>CO5</b>							M					

**Unit 1: Introduction to Economics and Demand Analysis**

**12 Hours**

Introduction to Economics Concepts in Decision-Making – Distinction Between Micro And Macroeconomics - Scope of Managerial Economics and Other Disciplines – Factors Influencing Managerial Decisions - Demand analysis: Types, Determinants, Elasticity And Its Applications, Demand Function, Law Of Demand And Demand Forecasting.

**Unit II: Cost and Price Analysis**

**12 Hours**

Cost Analysis: Various Cost Concepts and Its Types - Cost Functions - Economies of Scale - Cost Output Relationship in Short and Long Period, Supply Analysis - Pricing Analysis: Market Structures, Price Determination Under Different Market Situations, Price Discrimination, Various Pricing Methods And Break Even Analysis.

**Unit III: Macro Economic Issues****12 Hours**

Circular Flow Of Income - National Income – Business Cycle – Inflation - Economic Systems - Industrial Policy- Fiscal Policy - Unemployment – Indian Economic Planning - Current National Economic Trends

**Unit IV: Financial Markets****12 Hours**

Capital Market – Money Market – Debt Market – Derivatives Market- Credit Market - Foreign Exchange Market – Overview Of Instrument And Players – Central Bank, World Bank And Commercial Banks And Their Functions, Stock Exchange And Role Of SEBI - Monetary Policy.

**Unit V: International Business Environment****12 Hours**

Globalization- Forces, Meaning, Dimensions and Stages - Introduction to International Trade Theories - Balance of Payment - The Role of Trade Policy - General Agreement on Trade and Tariffs (GATT) and World Trade Organization(WTO) – Trade Blocks – Tariff and Non- Tariff Barriers – EXIM Policy – Performance of Indian Economy in external sector. Economic Integration (FTA, PTA, EU, Custom Union, EEC), Macro economic Variable, Foreign Exchange market and Exchange rate.

**Text Book(s):**

1. K.Aswathappa, Essentials of Business Environment, 12th, Revised Edition, Himalaya Publishing House, Mumbai, 2015.
2. Francis Cherunilam, Business Environment – Text and cases (Business Environment), Revised Edition, Himalaya Publishing House, Mumbai, 2015.

**Reference(s):**

1. Gupta, G.S. Macroeconomics, Theory and Applications, 4th edition, Tata McGraw-Hill publishing company Ltd., New Delhi, 2015.
2. Dwivedi D.N., Macroeconomics: Theory and Practice: Theory & Practice, 4th edition, Tata McGraw-Hill publishing company Ltd., New Delhi, 2015.
3. Gaurav Datt, Ashwani Mahajan, Indian Economy, 70th Edition, S Chand Publishers, 2015.

<b>MBA18R5104</b>	<b>ORGANIZATIONAL BEHAVIOUR</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
Course Category: <b>Program Core</b>			Course Type: <b>Theory</b>		

**Course Objective:**

The course aims at provide an overview of theories and practices in organizational behavior in individual, group and organizational level in the changing global scenario. It focuses on the basic roles, skills and functions of management, with special attention to managerial responsibility for effective and efficient achievement of goals.

**Course Outcome(s):**

After completing this course, the student will be able to:

CO1: Understand the historical backdrop and fundamentals of organizational behaviour

CO2: Understand the various behaviors and characteristics of an individual

CO3: Understand and learn the effective Group Behavior for better in organizational settings.

CO4: Understand and learn the effective interpersonal, team building, leadership skills in order to get familiarized to adjust better in organizational settings..

CO5: Develop understanding about emerging concepts in management thought and philosophy in order to successfully apply inside the organization.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	M	L				S		L			
<b>CO2</b>					S				M			L
<b>CO3</b>			S			L		M				
<b>CO4</b>		L					M					
<b>CO5</b>		M					L	M				

**UNIT I FOCUS AND PURPOSE**

**05 Hours**

Definition, need and importance of organizational behaviour – Nature and scope – Framework – Organizational behaviour models.

**UNIT II INDIVIDUAL BEHAVIOUR**

**12 Hours**

Personality – types – Factors influencing personality – Theories – Learning – Types of learners – The learning process – Learning theories – Organizational behaviour modification.

Misbehaviour – Types – Management Intervention. Emotions - Emotional Labour – Emotional Intelligence – Theories. Attitudes – Characteristics – Components – Formation – Measurement- Values. Perceptions – Importance – Factors influencing perception – Interpersonal perception- Impression Management. Motivation – Importance – Types – Effects on work behavior.

**UNIT III GROUP BEHAVIOUR****09 Hours**

Organization structure – Formation – Groups in organizations – Influence – Group dynamics – Emergence of informal leaders and working norms – Group decision making techniques – Team building – Interpersonal relations – Communication – Control.

**UNIT IV LEADERSHIP AND POWER****09 Hours**

Meaning – Importance – Leadership styles – Theories – Leaders Vs Managers – Sources of power – Power centers – Power and Politics.

**UNIT V DYNAMICS OF ORGANIZATIONAL BEHAVIOUR****10 Hours**

Organizational culture and climate – Factors affecting organizational climate – Importance. Job satisfaction – Determinants – Measurements – Influence on behavior. Organizational change – Importance – Stability Vs Change – Proactive Vs Reaction change – the change process – Resistance to change – Managing change. Stress – Work Stressors – Prevention and Management of stress – Balancing work and Life. Organizational development – Characteristics – objectives –. Organizational effectiveness  
Developing Gender sensitive workplace

**Text Books :**

1. Stephen P. Robins, Organisational Behavior, PHI Learning / Pearson Education, Edition 17, 2016 (Global edition)
2. Fred Luthans, Organisational Behavior, McGraw Hill, 12th Edition,

**REFERENCES:**

1. Nelson, Quick, Khandelwal. ORGB – An innovative approach to learning and teaching. Cengage, 2nd edition. 2012
2. Jerald Greenberg, Behaviour in Organization, PHI Learning. 10th edition. 2011
3. Mc Shane & Von Glinov, Organisational Behaviour, 4th Edition, Tata Mc Graw Hill, 2007.
4. Udai Pareek, Understanding Organisational Behaviour, 3rd Edition, Oxford Higher Education, 2011
5. Ivancevich, Konopaske & Maheson, Oranisational Behaviour & Management, 7th edition, Tata McGraw Hill, 2008.

<b>MBA18R5105</b>	<b>PRINCIPLES OF MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

### Course Objective(s):

The course aims at providing fundamental knowledge and exposure of the concepts, theories and practices in the field of management. It focuses on the basic roles, skills and functions of management, with special attention to managerial responsibility for effective and efficient achievement of goals. The course aims to provide an understanding of basic concepts, theories and techniques in the field of human behaviour at the individual, group and organizational levels in the changing global scenario.

### Course Outcome(s):

After completing this course, the student will be able to:

**CO1:** Describe and discuss the elements and evolution of effective management.

**CO2:** Discuss and apply the planning process and Decision Making process for improvement.

**CO3:** Describe various organizational structure and functions of Organizations.

**CO4:** Describe various theories related to the development of leadership skills, motivation techniques, team work and effective communication.

**CO5:** Describe various controlling techniques in the organizations

### Mapping of Course Outcome(s):

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	S	M						L		L	L
<b>CO2</b>			S	M				S				
<b>CO3</b>	L				S		M	L				
<b>CO4</b>	L				M		M					
<b>CO5</b>		M				L	S					

### UNIT I INTRODUCTION TO MANAGEMENT

**09 Hours**

Organization- Management- Role of managers- Evolution of management thought- Organization and the environmental factors- Managing globally- Strategies for International business.

### UNIT II PLANNING

**09 Hours**

Nature and purpose of planning- Planning process- Types of plans- Objectives- Managing by Objective (MBO) strategies- Types of strategies – Policies – Decision Making- Types of decision- Decision making process- Rational decision making process- Decision making under different conditions.

**UNIT III ORGANISING****09 Hours**

Nature and purpose of organizing- Organization structure- Formal and informal groups/ organization- Line and staff authority- Departmentation- Span of control- Centralization and decentralization- Delegation of authority- Staffing- Selection and Recruitment- Orientation- Career development- Career stages- Training- Performance appraisal

**UNIT IV DIRECTING****09 Hours**

Managing people- Communication- Hurdles to effective communication- Organization culture- Elements and types of culture- Managing cultural diversity.

**UNIT V CONTROLLING****09 Hours**

Process of controlling- Types of control- Budgetary and non-budgetary control techniques- Managing productivity- Cost control- Purchase control- Maintenance control- Quality control- Planning operations.

**TEXT BOOKS:**

1. Andrew J. Dubrin, Essentials of Management, Thomson Southwestern, 9th edition, 2012
2. Stephen P. Robbins, David A. De Cenzo and Mary Coulter, Fundamentals of management, 9<sup>th</sup> edition, Prentice Hall of India, 2016.
3. Harold Koontz and Heinz Weihrich, Essentials of management: An International & Leadership Perspective, 10th edition, Tata McGraw-Hill Education, 2015.

**REFERENCES:**

1. Don Hellriegel, Susan E. Jackson and John W. Slocum, Management- A competency-based approach, Thompson South Western, 11th edition, 2008.
2. Heinz Weihrich, Mark V Cannice and Harold Koontz, Management- A global entrepreneurial perspective, Tata McGraw Hill, 12th edition, 2008.
3. Stephen P. Robbins, David A. De Cenzo and Mary Coulter, Fundamentals of management, Prentice Hall of India, 2012.

<b>MAS18R5101</b>	<b>ACTUARIAL PROBABILITY AND STATISTICS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objectives:**

The aim of the Probability and Mathematical Statistics subject is to provide a grounding in the aspects of statistics and in particular statistical modeling that are of relevance to actuarial work.

**Course Outcome:**

CO1: To develop problem-solving techniques needed to accurately calculate probabilities.

CO2: To understand underlying assumptions for common probability distributions and their usage

CO3: To apply problem-solving techniques to solving real-world events in continuous distributions.

CO4: To apply selected probability distributions to solve problems.

CO5: To determine the central limit theorem which is hard to overstate; indeed it is the reason that many statistical procedures work.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	S	M						L		L	L
<b>CO2</b>			S	M				S				
<b>CO3</b>	L				S		M	L				
<b>CO4</b>	L				M		M					
<b>CO5</b>		M				L	S					

**Unit-I : Measures of Central Tendency and Probability:**

**12 Hours**

Grouped Frequency Distribution – Stem and Leaf Diagrams – Line Plots – Cumulative Frequency Tables – Measures of Location – The Mean – The Median – The Mode – Measures of Spread – The Standard Deviation – Moments – The Range – The Interquartile Range – Symmetry and Skewness (Bowley’s, Pearson’s & moments) – Box Plots – Probability – Definition – Basic properties – Addition rule for probability – Conditional probability definition – Sample Space and Events – Venn Diagrams and the Algebra of Events - Axioms of Probability Derivation of Bayes’ theorem for events – Probabilities for situations involving independence.

**UNIT-II : Random Variables:****12 Hours**

Random Variables: Discrete Random Variables – Random Variables – Probabilities – Probability Functions – Cumulative Distribution Functions – Continuous Random Variables – Definition – Probability Density Function – Cumulative Distribution Function – Expected Values – Mean – Variance and Standard Deviation – Linear Functions of X – Moments – Important Discrete Distributions – Uniform Distribution – Bernoulli Distribution – Binomial Distribution – Geometric Distribution – Negative Binomial Distribution – Hyper Geometric Distribution – Poisson Distribution – Important Continuous Distributions – Uniform Distribution– Exponential Distribution - Gamma Distribution – Beta Distribution – Normal Distribution – Functions of a Random Variables – Discrete Random Variables – Continuous Random Variables.

**Unit-III Generating Functions:****12 Hours**

Probability Generating Functions – General Formula– Important Examples – Evaluating Moments – Moment Generating Functions – General Formula – Finding Moments – Use of Moment Generating Functions – Important Examples – Cumulate Generating Functions – Linear Functions.

**UNIT-IV Joint Distributions:****12 Hours**

Joint Probability (Density) Functions – Discrete Case – Continuous Case – Marginal Probability (Density) Functions – Discrete Case – Continuous Case – Conditional Probability (Density) Functions – Continuous Case – Independence of Random Variables – Discrete Case – Continuous Case – Functions of Random Variables– Expectations of Functions of Two Variables – Expectations – Expectation of a Sum – Expectation of a Product – Covariance and Correlation Coefficient – Useful Results on Handling Covariance – Variance of a Sum – Using Generating Functions to Derive Distributions of Linear Combinations of Independent Random Variables - Probability Generating Functions – Using Probability Generating Functions to Derive Relationships among Variables – Moment Generating Functions – Using Moment Generating Functions to Derive Relationships Among Variables. 2 Unit V:

**UNIT-V Conditional Expectation:****12 Hours**

The Conditional Expectation  $E[Y|X]$  – The Random Variable  $E[Y|X]$  – The Random Variable  $V[Y|X]$  and the “ $E[V]+ V[E]$ ” Result – Moment Generating Functions – Compound Distributions – Moments of Compound Distributions – Generating Functions of Compound Distributions – The Central Limit Theorem and its applications – Definitions– Practical Uses – Normal Approximation for Binomial Distribution, Poisson Distribution, Gamma Distribution – The Continuity Correction – Examples.

**Text Book**

1. Study Material from Institute of Actuaries of India, Mumbai  
(The Professional body for Actuarial Studies in India) Subject Code: CT3 – Probability and Mathematical Statistics.

**Reference**



1. Freund E F John, Mathematical statistics, 6th edition, Prentice Hall International, 1999.
2. Probability Distributions – STPM Mathematics Book by KK LEE (2018)
3. Statistical Distributions with Applications and Parameter Estimates
4. Probability Theory Books by Y.A. Rozanov: 2013

<b>MBS18R5102</b>	<b>ACTUARIAL FINANCIAL MATHEMATICS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objectives:**

To Explore the fundamental concepts of Financial Mathematics and their relevance to the field of Actuarial Science

**Course Outcome:**

CO1: To handle the interest rates to find out the present and accumulated value with Actuarial tools and notations.

CO2: To provide knowledge on discounting and accumulation & sudden changes in interest rates; this might be used in actuarial calculations.

CO3: To enrich the students knowledge in annuities (examples in real life situation) where payments are increasing continuously.

CO4: To handle with more important transactions including loan schedules.

CO5: To evaluate the money value of financial instruments in different time period with fixed interest securities.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	S	M						L		L	L
<b>CO2</b>			S	M				S				
<b>CO3</b>	L				S		M	L				
<b>CO4</b>	L				M		M					
<b>CO5</b>		M				L	S					

**UNIT I: Cash flow Model: Cash Flow Process**

**12 Hours**

The Time Value of Money-Present Values, Simple Discount, and Investing Over a Period. Interest Rates: Nominal Rate of Interest – Accumulation Factors – Principles of Consistency, The Force of Interest – The Basic Compound Interest Functions – Interest Payable pthly. Real and money rates of interest: Definition of real and money interest rates Usefulness of real and money interest rates.

**UNIT II: Discounting and Accumulation:**

**12 Hours**

Present Values of Cash flows – Discrete Cash flows, Continuous Cash Flows – Valuing Cash Flows – Constant Interest Rates, Sudden Changes in Interest Rates – Interest Income.

**UNIT III :Level Annuities: Present Values**

**12 Hours**

Payments Made in Arrear, Payment Made in Advance – Accumulations – Perpetuities – Continuously Payable Annuities – Annuities Payable pthly: Perpetuities Deferred and Increasing Annuities – Annual Payments – Continuously Payable Annuities- Varying

Annuities – Annual Payments – Continuously Payable Annuities Relationship – Decreasing Annuities – Special Cases – Irregular Payments – Sudden Changes in Interest Rates.

**UNIT IV: Equation of Value:**

**12 Hours**

The Equation of Value and the Yield on the Transaction– Solving for an Unknown Quantity – Uncertain Payment or Receipt – Loan Schedules: Calculating the Capital Outstanding – Introduction, the Theory and the Retrospective Loan Calculation – Calculating the Interest and Capital Elements – The Loan Schedule – Installment Payable More Frequently than Annually.

**UNIT V: Investments: Introduction**

**12 Hours**

Fixed interest government borrowings – fixed interest government bonds, cash flows – government bills – fixed interest borrowings by other bodies – convertibles – property – derivatives – future, range of futures, clearing house, margin, bond futures, short interest futures, stock index futures – options, swaps – interest rate swaps, currency swaps.

**TEXT BOOKS:**

1. The Study Material from Institute of Actuaries of India, Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CT1 - Financial Mathematics.
2. Williams R.J. (2011) : Introduction to Mathematics of Finance

**REFERENCES:**

1. Financial Mathematics for comprehensive Treatment, by Giuseppe Campolieti Roman N. Markov - 2014
2. Stochastic Interest rates by Daragh McInerney (2015), Tomasz Zastawniak.
3. The theory of interest Stephen G. Kellison Mc Graw-Hill Irwin, 2014. 647 pages
4. McCutcheon, John J, Scott, William F, An introduction to the Mathematics of Finance, London, Heinemann, 1986.
5. M. V. Butcher, Cecil J. Nesbitt, Mathematics of compound interest, Ulrich's Books, 1971.
6. Jonathan.E Ingersoll, Theory of financial decision making, Rowman & Littlefield, 1987. 4. Kellison, Stephen G, The theory of interest, 2nd edition, Irwin, 1991.

<b>MAS18R5103</b>	<b>FINANCIAL ENGINEERING AND LOSS RESERVING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objectives:**

The aim of the Financial Engineering and Loss Reserving subject is to provide a grounding in the principles of modelling as applied to actuarial work – focusing particularly on stochastic asset liability models and the valuation of financial derivatives. These skills are also required to communicate with other financial professionals and to critically evaluate modern financial theories.

**Course Outcome:**

- CO1: To analyze the financial market and Behavioral Economics
- CO2: To provide knowledge on Measuring Investment Risk
- CO3: To enrich the student’s knowledge in Assets Management
- CO4: To handle with more important in Liability valuation.
- CO5: To provide knowledge about option Pricing

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	S	M						L		L	L
<b>CO2</b>			S	M				S				
<b>CO3</b>	L				S		M	L				
<b>CO4</b>	L				M		M					
<b>CO5</b>		M				L	S					

**Unit-I : Theories of financial market behavior and Behavioral Economics 12 Hours**

Rational expectations theory, rational choice theorem, Mathematical Representation of utility function: Non-satiation, Risk aversion, risk neutrality and risk seeking, declining or increasing absolute and relative risk aversion. Axioms for Utility theory and expected utility theorem, Utility theory-Economic properties, Wealth, Investment opportunities, Absolute dominance, First and Second-order dominance, Insurance problems.

**Behavioural economics-** Features of Kahneman and Tversky’s prospect theory critique of expected utility theory. Context of financial markets -Framing, heuristics, bias (herd instinct, anchoring and adjustment , self-serving bias, loss aversion, confirmation bias, availability bias, familiarity bias), Bernartzi and Thaler solution to the equity premium puzzle.

**Unit-II :Measures of investment risk 12 Hours**

Properties of risk measures, variance of return, Downside semi-variance of return, Shortfall probabilities, Value at Risk (VaR) / Tail VaR, Risk and insurance companies, moral hazard , adverse selection Stochastic interest rate of return models, Deterministic model, Derive algebraically annual rates of return, mean, variance for single premium, annual premium

**Unit-III: Asset valuations 12 Hours**

Mean-variance portfolio theory, Asset pricing models-Sharpe Lintner- Mossin Capital Asset Pricing Model (CAPM), Assumption, Benefits, limitation, Issues. Investment Return-Single Index Model, multifactor models and its types. Stochastic models for security prices-Properties of standard Brownian motion or Wiener process, stochastic differential equations and its solution - Ito integral, geometric Brownian motion ,Ornstein Uhlenbeck process. Models of the term structures of interest rates, Approaches of pricing of zero-coupon bonds and interest-rate derivatives (risk-neutral approach, state-price deflators) for a general one-factor diffusion model for the risk-free rate of interest, Awareness of Vasicek, Cox-Ingersoll-Ross ,Hull- White models. Simple models for credit risk, approaches to modeling credit risk: structural Models, reduced form models, intensity-based models. Merton model, two-state model for credit ratings with a constant transition intensity, Jarrow Lando- Turnbull model, stochastic transition intensity

**Unit-IV: Liability valuations**

**12 Hours**

Ruin theory- Calculate probabilities by Poisson process, simulation Run-off triangles- Assumption, chain ladder method, Estimating outstanding claim amounts- claim method, Bornhuetter-Ferguson method, Value basic benefit guarantees using simulation techniques.

**Unit-V: Option pricing**

**12 Hours**

Option pricing, valuations, factors affects option prices, arbitrage ,complete market .Upper and lower bounds for European and American call and put options, put-call parity. risk-neutral pricing approach, Black-Scholes derivative pricing model, derive the Black-Scholes partial differential equation both in its basic and Garman-Kohlhagen forms, Terminology for the first, and where appropriate second, partial derivatives (the Greeks) of an option price.

**TEXT BOOKS:**

1. The Study Material from Institute of Actuaries of India, Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CT8 - Financial Economics Or CM2- Financial Engineering and Loss Reserving

<b>MAS18R5104</b>	<b>PRINCIPLES OF BANKING AND INSURANCE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category: Program Core</b>			<b>course type: Theory</b>		

**Course Objective(s):**

This course is designed to impart knowledge of the concepts and principles of banking and insurance. It further aims at enhancing the understanding capabilities of students about Actuarial profession and banking systems

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1 To know the basics of insurance mechanism.
- CO2 The student will identify key elements of financial principles.
- CO3 To introduce to the learner the basic elements that are involved in actuarial profession.
- CO4 The student will discuss the concepts of banking systems.
- CO5 To develop information in mobile banking and electronic fund transfer system.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	M	S										
<b>CO2</b>				M			S					
<b>CO3</b>		S			M							
<b>CO4</b>			S					M				
<b>CO5</b>						M	S					

**UNIT I Introduction to Insurance**

**09 Hours**

Definitions of insurance –Origin and History-Significance of insurance –Tax benefits – Factors influencing on insurance products –Features of insurance company –Nature of insurance –Reforms in insurance sector –Recent developments–Fundamental principles of insurance –Comparison of reinsurance and double insurance –Classification of insurance –Coinsurance –Types of life insurance policies--Policy conditions-Difference between nomination and assignment –Policy conditions and Privileges –valuation –Life fund –Method of distributing surplus .

**UNIT II Financial principles**

**09 Hours**

premium income and outgo investments - reserves - Surplus - profit - valuation of surplus. Theory of rating - physical and Moral hazard – meaning of risk-types of risk-objective of –risk management-risk - under writing – reinsurance-- concepts and methods. –IRDA regulation

**Unit III Actuarial profession-Overview**

**09 Hours**

Introduction to profession and professionalism –Evolution of Actuarial profession – Characteristics of the ideal profession -Characteristics of the Actuarial profession-Actuary in Financial Services Industry: -Role of Actuaries:-Insurance Business-valuation of liabilities-profit distribution-product design and product pricing-profit testing-Assessment of solvency –General Insurance:-Premium rating –Reinsurance requirements –Health insurance -Role of an appointed Actuary –Role of an Actuary-other areas -skills required for the Actuary –Acquiring Knowledge about the Aspects of the Company where Actuary is employed

### **UNITIV Banking**

**09Hours**

Definition –Banking System –Role of Banks in Economic Development –Central Bank – Functions –Credit Control Measures –Role of RBI in Regulatory and Controlling Banks. E-Banking –meaning –E-Banking and Financial Services –Risk Management for E-Banking.

### **UNIT V Mobile Banking**

**09Hours**

meaning –Services –Security Issues –Telephone Banking –Mechanism –Telephone Banking System –Call Centers .ATM –Features –Mechanism –Benefits –Shared ATM Network in India –Digital Money –Mode of Issue and Implications –E-Money and Monetary Policy –Policy issues of RBI –Electronic Funds Transfer System

### **TEXTBOOKS**

Life Insurance Textbook Part A Learning material on Life insurance for the Institute of Actuaries of Australia Part III Course 2A Life Insurance. Edition v1, June 2016© Institute of Actuaries of Australia 2016.

1. Group Insurance, Skwire, Seventh Edition, 2016, ACTEX, (Group & Health Extension ONLY)
2. Value at Risk: The New Benchmark for Managing Financial Risk, Jorion, P., Third Edition, 2007, McGraw Hill
3. Financial Enterprise Risk Management, Sweeting, P., 2011, Cambridge Univ Press

### **REFERENCES**

1. Principles of ManagementK. Anbuvelan 2016
2. Principles and Practice of ManagementT. N. Chhabra 2016
3. S. Nataraj and R. Parameswaran, “Indian Banking”, S.Chand & Sons Publisher, New Delhi.
4. Principles of ManagementB. S. Moshal 1st edition 2009,reprint 2015
5. Risk Management - Principles and Techniquesby Uma Narang 1st Edition 2015

## II

<b>MBA18R5109</b>	<b>APPLIED OPERATIONS RESEARCH</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>1</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

### Course Objective(s):

This course is designed for individuals with a strong analytical background who seek a professional business degree that utilizes their quantitative skills. Operational Research (OR) uses mathematical techniques to tackle real-life decision problems. This field of study can be applied to almost any business or scientific field. It utilizes observation, modeling and diagnosis.

### Course Outcome(s):

After completing this course, the student will be able to:

**CO1:** Students will be able to gain basic knowledge in Operations and linear programming.

**CO2:** Students will be able to examine the issues in the scheduling problems and find the solution by using Optimization models.

**CO3:** The student would be able to examine the issues in the inventory planning and control using EOQ and EBQ models.

**CO4:** The student would be able to apply the Decision and Game Theory concepts for scientific study of strategic decision making.

**CO5:** The students will be able to gain the knowledge in Queuing theory and Reliability analysis

### Mapping of Course Outcome(s):

CO/ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PEO 1	PEO 2	PEO 3
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>	<b>M</b>	<b>M</b>	<b>M</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>	<b>M</b>	<b>M</b>	<b>M</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>	<b>M</b>	<b>M</b>	<b>M</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>	<b>M</b>	<b>M</b>	<b>M</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>	<b>M</b>	<b>M</b>	<b>M</b>

### UNIT I INTRODUCTION TO LINEAR PROGRAMMING (LP)

**12Hours**

Introduction to applications of operations research in functional areas of management. Linear Programming-formulation, solution by graphical and simplex methods (Primal - Penalty, Two Phase), Special cases. Dual simplex method. Principles of Duality. Sensitivity Analysis.

### UNIT II TRANSPORTATION MODELS

**12Hours**

Transportation Models (Minimising and Maximising Problems) – Balanced and unbalanced Problems – Initial Basic feasible solution by N-W Corner Rule, Least cost and Vogel’s approximation methods. Check for optimality. Solution by MODI / Stepping Stone method. Case of Degeneracy. Transshipment Models. Assignment Models (Minimising and Maximising Problems) – Balanced and Unbalanced Problems. Solution by Hungarian and Branch and Bound Algorithms. Travelling Salesman problem. Crew Assignment Models.



**UNIT III INTEGER PROGRAMMING AND INVENTORY MODELS****12Hours**

Solution to pure and mixed integer programming problem by Branch and Bound and cutting plane algorithms. Inventory Models – EOQ and EBQ Models (With and without shortages), Quantity Discount Models.

**UNIT IV GAME THEORY AND DECISION THEORY****12Hours**

Game Theory-Two person Zero sum games-Saddle point, Dominance Rule, Convex Linear Combination (Averages), methods of matrices, graphical and LP solutions. Decision making under risk – Decision trees – Decision making under uncertainty.

**UNIT V QUEUING THEORY AND REPLACEMENT MODELS****12Hours**

Queuing Theory - single and Multi-channel models – infinite number of customers and infinite calling source. Replacement Models-Individuals replacement Models (With and without time value of money) – Group Replacement Models.

**TEXT BOOKS**

1. Hamdy A Taha, Introduction to Operations Research, 5th edition, Prentice Hall India, New Delhi, 2014.
2. Paneerselvam R., Operations Research, Prentice Hall of India, Fourth Print, 2010.
3. N. D Vohra, Quantitative Techniques in Management, Tata Mcgraw Hill, 2010.
4. Pradeep Prabakar Pai, Operations Research - Principles and Practice, Oxford Higher Education.

**REFERENCES**

1. G. Srinivasan, Operations Research – Principles and Applications, PHI, 2007.
3. Gupta P.K, Hira D.S, Problem in Operations Research, S.Chand and Co, 2007.
4. Kalavathy S, Operations Research, Second Edition, Vikas Publishing House, 2004.
5. Frederick & Mark Hillier, Introduction to Management Science – A Modeling and case studies approach with spreadsheets, Tata Mcgraw Hill, 2005.

<b>MBA18R5110</b>	<b>BUSINESS RESEARCH METHODS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

To familiarize students with the types of business problems often faced by corporate entities and to help them develop insights about basic concepts of research designs and methodology aimed at solving business problems.

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1:** Comprehend the objectives of research and the steps involved in research process in a practical manner.
- CO2:** Use different data collection methods and sampling design techniques for most competent research work.
- CO3:** Analyze the collected and processed data with the help of statistical tools.
- CO4:** Applicability of suitable research methods and research tools would enable us to get optimum solutions to the problem.
- CO5:** Generalize and interpret the data and prepare a research report.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>		M	L								S	
<b>CO2</b>		S									L	
<b>CO3</b>			S					S				
<b>CO4</b>			M	M				L				
<b>CO5</b>					M							

**Unit 1:Introduction to Research**

**09 Hours**

Research: Meaning- Significance of Business Research –Research Process – Essentials of A Good Research - Types of Research- Problem Selection And Definition - The Need For Theoretical Frame Work— Ethics In Research -Problems Encountered By Researchers In India

**Unit 2:Research Design, Measurement and Scaling**

**09 Hours**

Research Design - Exploratory, Descriptive, causal research design. Fundamentals of Measurement and Scaling: Measurement of Variables – Types of Scales - Development of Scales – Reliability testing – Validity testing

**Unit 3:Data Collection Methods and Sample Design**

**09 Hours**

Data Collection Method: Primary Data Collection Methods - Guidelines For Questionnaire Design – Secondary Sources of Data Collection - Special Data collection Methods. Sampling Techniques: Probability and Non-Probability Sampling Methods, Determination of Sample Size, Development of Hypothesis and Testing- Data preparation

**Unit 4: Data Analysis****09 Hours**

Measures of Central Tendency – Measures of Dispersion - Parametric and Non parametric Techniques. Hypothesis Testing - Chi-Square – Correlation – Regression - Multiple Regression– Discriminate Analysis - Factor Analysis – Cluster Analysis And Conjoint Analysis- Application Of SPSS Package.

**Unit 5:Report Writing****09 Hours**

The Purpose Of Written Report – Basics Of Written Reports - The Integral Parts Of A Report – The Title Of A Report - Table Of Content, The Synopsis, The Introductory Section, Method Of Sections Of A Report, Result Section – Discussion Section – Recommendation And Implementation Section- Oral Presentation -Writing A Research Proposal And Research Articles.

**Text Book(s):**

1. Kothari C.R., Research Methodology, 3rd edition, New Age International Private, Ltd, New Delhi, 2017
2. Donald Cooper, Boca Rator and Pamela Schindler, Business Research Methods, 12<sup>th</sup> edition, Tata McGraw Hill, New Delhi, 2015.

**Reference(s):**

1. William G Zikmund, Business Research Methods, 8th Edition, Cengage Learning, Delhi, 2015.
2. Naresh K.Malhotra Marketing Research: An Applied Orientation, 7<sup>th</sup> edition, Prentice Hall, 2015.
3. Rajendra Nargundkar, “Marketing Research, Text and Cases”, 3<sup>rd</sup> edition New Delhi: Tata McGraw Hill Publishing Company Limited, 2015.

MBA18R5111	FINANCIAL MANAGEMENT	L	T	P	C
		3	0	0	3
<b>Prerequisite:</b> Basic knowledge in Accounting					
<b>Course Category :</b> Program Core			<b>Course Type</b> : Theory		

### Course Objective(s):

To familiarize students to understand the operational nuances of a Finance Manager and comprehend the technique of making decisions related to finance function

### Course Outcome

Upon completion of the course students are able to

CO1: Demonstrate the different financing decision and Estimate the value of different financial instruments

CO2: Formulate the optimum Capital Structure by choosing appropriate source of finance

CO3: Estimate cash flows and make capital budgeting decisions under both certainty and uncertainty

CO4: Construct dividend policy of a firm by analyzing the factors influencing the dividend decision

CO5: Assess working capital needs of the firm and arrange short-term financing

### CO and PO MAPPING

.S. No.	CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1.	CO1	H	M										
2.	CO2	H	H								M		M
3.	CO3	H	H		M	H		H			M		
4.	CO4	M	H				H	H					
5.	CO5	H						H					M

H - Strong Correlation, M - Moderate Correlation, L - Low Correlation

### UNIT 1: FOUNDATIONS OF FINANCE

**09 Hours**

Nature of financial management – scope of finance function, objectives of firm and goals of finance function - concepts of value of return, valuation of bonds and shares

### UNIT II: FINANCING DECISION

**09 Hours**

Sources of finance – short-term and long term - Cost of capital - Financial and Operating leverage, capital structure theories and policy

### UNIT III : INVESTMENT DECISION

**09 Hours**

Capital budgeting - Process, methods - Cash flow determination - Risk analysis in capital budgeting

### UNIT IV : DIVIDEND DECISION

**09 Hours**

Dividend Decision - dividend theories, dividend policies, and practices - financial planning and strategy .Financial Distress prediction model

### UNIT V: LIQUIDITY DECISION

**09 Hours**

Working capital management – Concepts, Determinants Accounts receivables management; - Inventory management - Cash management - Working capital finance: trade credit, bank finance, commercial papers

### **TEXT BOOKS**

1. Pandey, I.M., Financial Management, 11<sup>th</sup> edition, Vikas Publishing House Pvt. Ltd., New Delhi , 2015.
2. Khan M.Y. and Jain P.K, Financial Management, Text, Problems and Cases, 7<sup>th</sup> edition, Tata McGraw Hill publishing company Ltd., New Delhi, 2017.

### **REFERENCES**

1. AswathDamodaran, Applied Corporate Finance: A User's Manual. John Wiley and Sons, Inc., 2005.
2. James C. Vanhorne, Financial Management and Policy, 12<sup>th</sup> edition, Pearson Education Asia (low priced edition), 2012.
3. Brearly and Myers, Principles of Corporate Finance, 7th Edition, McGraw Hill, 2002.
4. William Megginson, Principles of Corporate Finance, 2nd Edition, Cengage Learning, Delhi, 2008.

<b>MBA18R5112</b>	<b>HUMAN RESOURCE MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

To acquaint students with different subsystems of Human Resource Management and their importance. The students would also be able to appreciate the importance and applications of industrial relations and different legislations related the same.

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1:** To provide knowledge about management issues related to staffing, training, performance, compensation, human factors consideration and compliance with human resource requirements.

**CO2:** Designing the appreciate role of HR specialist for implementing HRM policies.

**CO3:** Managing the manpower to motivate and attract them to retain in the organization.

**CO4:** Develop the responsibility of employer and legal system to manage the employment relation.

**CO5:** Develop the Employment Relations and Knowledge to resolve the issues.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S				M							
<b>CO2</b>				L			S					
<b>CO3</b>			M		S							
<b>CO4</b>		M					S					
<b>CO5</b>			S					M				

**Unit 1: Perspectives in Human Resource Management**

**09 Hours**

Evolution of human resource management – The importance of the human factor – Challenges – Inclusive growth and affirmative action -Role of human resource manager – Human resource policies – Computer applications in human resource management – Human resource accounting and audit.

**Unit 2: The Concept of Best Fit Employee**

**09 Hours**

Importance Of Human Resource Planning – Forecasting Human Resource Requirement – Matching Supply And Demand - Internal And External Sources. Recruitment - Selection – Induction – Socialization Benefits.

**Unit 3: Training and Executive Development**

**09 Hours**

Types of training methods –purpose- benefits- resistance. Executive development programmes – Common practices - Benefits – Self development – Knowledge management.

**Unit 4: Sustaining Employee Interest**

**09 Hours**

Compensation Plan – Reward – Motivation – Application of Theories of Motivation – Career Management – Counseling and Mentoring

**Unit 5: Performance Evaluation and Control Process**

**09 Hours**

Method of performance evaluation – Feedback – Industry practices. Promotion, Demotion, Transfer and Separation – Implication of job change. The control process – Importance – Methods – Requirement of effective control systems grievances – Causes – Implications – Redressal methods.

**Text Book(s):**

1. Dessler Human Resource Management, Pearson Education Limited, 15<sup>th</sup> Edition 2017
2. Decenzo and Robbins, Human Resource Management, Wiley, 12<sup>th</sup> Edition, 2016.

**Reference(s):**

1. Luis R.Gomez-Mejia, David B.Balkin, Robert L Cardy. Managing Human Resource, PHI Learning. 2012
2. Bernadin , Human Resource Management, Tata McGraw Hill, 8th edition 2012.
3. Ivancevich, Human Resource Management, McGraw Hill 2012.

<b>MAS18R5105</b>	<b>ACTUARIAL FINANCIAL REPORTING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Business Finance subject is to provide a basic understanding of corporate finance including a knowledge of the instruments used by companies to raise finance and manage financial risk and provide the ability to interpret the accounts and financial statements of companies and financial institutions.

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1:** Students will be able to gain basic knowledge about corporate governance and Source of Finance.

**CO2:** Students will be able to examine the Financial Instruments and Issue.

**CO3:** The students will be able to gain the knowledge about Taxation.

**CO4:** The students will be able to gain the knowledge about Financial institution

**CO5:** The students will be able to gain the knowledge about Interpretations of Accounts for Insurance

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

**Unit I: Corporate governance and Source of Finance**

**09 Hours**

Introduction To Finance –Finance And Real Resources Of An Organization –Finance And The Organizations Objectives –Responsibilities For Financial Decision- key principles of corporate governance and the regulation of companies- stakeholders (including lenders and investors). Role and effects of the capital markets -maximization of shareholder wealth- The Capital Markets. Company Ownership: Types Of Business Entity –Sole Trader –Partnership –Limited Companies – Limited Liability Partnerships –Private &Public Limited Companies –Pros & Cons Of Limited Companies –Medium Term Finance –Hire Purchase –Credit Sale –Leasing –Bank Loans –Short Term Finance –Bank Overdrafts –Trade Credit –Factoring –Bills Of Exchange –Commercial Paper. Raising Finance- shadow banking’, direct project financing, crowd-funding and micro-finance.

**Unit II: Financial Instruments and Issue**

**09 Hours**

Loan Capital –Introduction –Debenture Stock –Unsecured Loan Stock –Subordinate Debt –Eurobond Loan Capital –Floating Rate Notes –Share Capital –Ordinary Shares –Preference Capital –Convertibles –Warrants –Options Issued By Companies –Winding Up of a Company. Issue Of Shares: Obtaining Stock Exchange Quotation –Reasons For Quotation –Methods To Obtain Quotation –Offer For Sale At Fixed Price –Offer For Sale By Tender –Concessionary Methods – Offer For Subscription –Placing –Introduction –Role Of Underwriting –Issue Made By Companies Already Quoted –Right Issue –Purpose –Impact –Theoretical Price –Scrip Issue –Purpose –Impact – Scrip Dividend

**Unit III: Taxation**

**09 Hours**



Introduction –Personal Taxation –Considerations –Taxable Income –Tax Rates –Corporation Tax – Accounting Profits & Taxable Profits –Rates Of Tax –Uses Of Corporation Tax System –Capital Gain Tax –Chargeable Gains –Indexation Allowance–Taper Relief –Capital Losses –Rates Of Tax – Other Taxes –Stamp Duty –Inheritance Taxes –Property Taxes –Sales Tax –Custom And Excise Duties –Double Taxation Relief. Use Of Derivatives: Introduction –Financial Futures –Bond Futures –Short Interest Rate Future –Stock Index Futures –Options –Meaning –Margins & Premium –Types–Put Option –Call Option –Uses Of Option –Interest & Currency Swaps –Pricing–Risk –Uses Of Swaps.

**Unit IV: Financial institution**

**09 Hours**

Features and Factor Influencing Financial institution, Features of central banks, investment exchanges, investment banks. Role of Financial Institution in financial market-clearing banks, building societies, investment trusts, unit trusts, investment management companies, self-administered pension funds, life insurance companies, general insurance companies

**Unit V: Interpretations of Accounts for Insurance**

**09Hours**

Security Of Loan Capital –Introduction –Measuring Risk Associated With Loan Capital –Loan Capital –Income Cover And Income Priority Percentages –Asset Cover And Asset Priority Percentages –Asset Gearing –Income Gearing –Shareholder Analysis –Earnings Per Share –Basic And Diluted –Earnings And Dividend Ratios –Price Earnings Ratio –Dividend Yield –Dividend Cover –Payout Ratio –EBITDA –Net Asset Value Per Share –Structure and content of insurance company accounts-consolidated accounts-Depreciation And Reserves –Introduction – Purpose –Methods –Straight-Line Methods –Reducing Balance Method –Capital And Reserves –Share Capital And Share Premium –Revaluation Reserve –Profit And Loss Account

**TEXT BOOKS:**

1. The Study Material from Institute of Actuaries of India, Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CT2 - Finance and Financial Reporting Or CB1- Business Finance

<b>MAS18R5106</b>	<b>LIFE AND HEALTH CONTINGENCIES</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Contingencies subject is to provide a grounding in the mathematical techniques which can be used to model and value cashflows dependent on death, survival, or other uncertain risks.

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1:** Students will be able to gain basic knowledge about Life Table.

**CO2:** Students will be able to gain the basic knowledge about Life Assurance Contracts, Life Annuity Contracts and Its Evaluation

**CO3:** The students will be able to gain the knowledge about Net Premiums, Gross premiums and Reserves.

**CO4:** The students will be able to examine the Profit Testing

**CO5:** The students will be able to examine the selection standardization and mortality

Mapping of Course Outcome(s):

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

**UNIT I: Life Table**

**09 Hours**

Simple assurance and annuity contracts-whole life assurance, term assurance, pure endowment, endowment assurance, whole life level annuity, temporary level annuity, guaranteed level annuity, premium, benefit-Constructing A Life Table –Using The Life Table -The Pattern Of Human Mortality -Life Table Functions At Non-Integer Ages -Method 1 –Uniform Distribution Of Deaths (UDD) -Method 2 –Constant Force Of Mortality (CFM) -The General Pattern Of Mortality -Mortality Characteristics -The Shape Of Qx, Lx, Dx -Using The Life Table To Evaluate Means And Variances -Evaluating Means And Variances Without Use Of The Life Table -Select Mortality -Displaying Select Rates -Constructing Select And Ultimate Life Tables -Using Tabulated Select Life Table Functions -Evaluating Means And Variances Using Select Mortality.

**UNIT II: Life Assurance Contracts, Life Annuity Contracts and Its Evaluation**

**09 Hours**

Life Assurance Contracts: Pricing Of Life Insurance Contracts -Equations of Value – Allowance. For Investment Income -Present Value Random Variable -Expected Present Value -Variance of the Present Value Random Variable for Life Assurance Contracts –Life Assurance Benefits Payable Immediately On Death -Claim Acceleration Approximation.

Life Annuity Contracts: Immediate Annuity -Present Value Random Variable -Expected Present Value -Variance Of The Present Value Random Variable -Annuity-Due -Temporary Annuity -Temporary Annuity-Due -Deferred Annuities -Deferred Annuities-Due -Continuous Annuities. Evaluation of Assurance And Annuities: Introduction-Evaluating Assurance Benefits-Premium Conversion Equations-Expected Present Values of Annuities Payable M Times Each Year

### **UNIT III: Net Premiums, Gross premiums and Reserves**

**09 Hours**

Premiums -Frequency Of Payment -The Net Premium- Definition -Notation -Net random future loss under an insurance contract- principle of equivalence-Net premiums for the insurance contract-Benefits- Regular premiums, Annuity benefits, Death benefits-Evaluation and Definition-prospective and retrospective reserves- Relationships between net premium reserves- single policy or a portfolio of policies (Death strain at risk(DSAR), expected death strain(EDS), actual death strain(ADS), mortality profit)- Survival Benefits-Annuities -Thiele's Differential Equation-Types of expenses in life insurance Contract - Influence of inflation on the expenses-Gross future loss random variable for standard Contracts - Gross premiums and reserves-Gross premiums using the equivalence principle -Annual premium contracts -With-profit contracts -Premiums payable m times per year -Gross premium using simple criteria other than the equivalence principle - Gross premium prospective and retrospective provision -Equality of gross premium prospective and retrospective provisions -Recursive relationship between provisions for annual premium contracts

### **UNIT-IV: Profit testing**

**09 Hours**

Methods of valuing cash flows for multiple transition events and decrement events-Multiple-state Markov Model-Health insurance -health insurance premium and benefit structures- - Regular premiums and sickness benefits- construction and use of multiple decrement table- pension schemes- benefit and contribution structures- unit-linked contract- whole life, endowment and term assurances, annuities, unit-linked contracts, and unitized with-profits contracts, multiple decrement models-Profit vector, the profit signature, the net present value, and the profit margin- premium for a conventional (without profits) life insurance contract- Eliminate ("zeroise") future negative cash flows

### **UNIT-V: Mortality, Selection and standardization**

**09 Hours**

Mortality tables for different classes of lives and its Importance, Factors which contribute to the variation in mortality and morbidity (occupation, nutrition, housing, climate/geography, education, genetics)-Risk classification in life insurance- Forms of selection (temporary initial selection, class selection, time selection, spurious selection, adverse selection), mortality convergence, Selective Effect, Selection of life insurance and pension schemes, single figure index-Advantages and Disadvantages , crude mortality rate, mortality rate (Direct and Indirect Standardized)standardized mortality ratio.

### **TEXT BOOKS:**

1. The Study Material from Institute of Actuaries of India, Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CT5 - Finance and Financial Reporting Or CM1- Business Finance

### **References**

1. Bowers, Newton L, Actuarial Mathematics, 2nd edition, Society of Actuaries,1997.

2. Neill, Alistair, Life contingencies, Heinemann, 1977.
3. Gerber, Hans U, Life Insurance Mathematics, 3rd edition, Springer, Swiss Association of Actuaries, 1997.

<b>MAS18R5107</b>	<b>SURVIVAL MODEL ANALYSIS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Models subject is to provide a grounding in stochastic processes and survival models and their application

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1:** Students will be able to gain basic knowledge Actuarial Model.

**CO2:** Students will be able to gain the knowledge about Markov chain and Process.

**CO3:** The students will be able to gain the knowledge about Survival Model.

**CO4:** The students will be able to gain the knowledge Maximum Likelihood Estimator

**CO5:** The students will be able to examine the Exposed to Risk and Method of Graduation

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

**Unit-I: Actuarial Model**

**09 Hours**

Principles of actuarial modeling-Application, Benefits and Limitations-Stochastic and Deterministic model- Comparison, Benefits and Limitations- Short-run and long-run properties of a model- Process of sensitivity testing in Modeling-General principles of stochastic processes-Its types (continuous or discrete time, continuous or a discrete state space, mixed type), Markov property, Counting Process- Mixed processes-Application

**Unit-II Markov Chain and Markov process**

**09 Hours**

Markov Chains Model-Features - Chapman-Kolmogorov equations- stationary distribution for a Markov chain in simple cases- Time-inhomogeneous Markov chain model-Application

Markov process model-Features- Kolmogorov equations (time/age dependent, duration of stay in one or more states transition intensities)- Kolmogorov equations in simple cases- simple survival models, sickness models and marriage models, other simple applications. Markov jump processes-Uses and Simulation

**Unit-III Survival models and Estimation Procedure**

**09 Hours**

Survival models- Functions, lifetime or failure time, Probability Distribution and density functions, Force of mortality or hazard rate and its relationship, Integral formulae for  ${}_t p_x$  and  ${}_t q_x$ - Gompertz and Makeham laws of mortality- Complete and Curtate future lifetime- expected value, variance - two-state model- The Relationship Between  $T_x$  and  $E_x$ .

Lifetime distributions-Its Types- Empirical survival function -Censoring- Kaplan-Meier (or product limit) estimator- Nelson-Aalen estimator-cumulative hazard rate- Proportional

hazards-Estimation procedure Estimation of Covariance- Cox model for proportional hazards-Derivation for partial likelihood estimate in the absence of ties, and state the asymptotic distribution of the partial likelihood estimator.

**Unit-IV Maximum likelihood Estimators**

**09 Hours**

Maximum likelihood estimators - Transition intensities, constant transition intensities - Piecewise constant transition intensities-Observational Plan - Markov model of transfers between states- Asymptotic joint distribution- Poisson approximation -Binomial model of mortality- Estimating  $Q_x$  From The Data -Generalization Of The Model-Multiple state Markov model-Comparison with Binomial and Poisson models- study of human mortality.

**Unit-V: Exposed to Risk and Method of Graduation**

**09 Hours**

Calculating Exposed to Risk- homogeneous classes -The Principle of Correspondence - census approximation-Rate Interval- census formula-Data for Death and census-Consistency between Census Data and Death Data -Calendar Year Rate Intervals Crude estimates for consistency (chi-square test, standardized deviations test, sign test, cumulative deviation test, grouping of signs test, serial correlations test)- Graduating crude estimates of transition intensities-Process Reason-,Statistical Test, Test for smoothness, Advantages and Disadvantages of parametric formula, standard table, graphical Methods.

**TEXT BOOKS:**

1. The Study Material from Institute of Actuaries of India,Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CT4-Models Or CS2-.Risk Modeling and Survival Analysis

**References**

1. Bowers, Newton L, Gerber, Hans U, Hickman, James C, Jones, Donald A, Nesbitt, Cecil J, Actuarial Mathematics, 2nd edition, Society of Actuaries, 1997.
2. Haberman, Steven Pitacco, Ermanno, Actuarial models for disability Insurance, Hapman & Hall, 1999.
3. Neill, Alistair, Life contingencies, Heinemann, 1977

<b>MAS18R5108</b>	<b>RISK MODEL ANALYSIS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Models subject is to provide a grounding in stochastic processes and survival models and their application

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1:** Students will be able to gain basic knowledge Loss Distribution and reinsurance.

**CO2:** Students will be able to gain the knowledge about Risk Model and Ruin Theory.

**CO3:** The students will be able to gain the knowledge about Run-Off Triangles.

**CO4:** The students will be able to gain the knowledge Generalized Linear Models

**CO5:** The students will be able to examine the Exposed to Time series models

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO6</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO7</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO8</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO9</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO10</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

**Unit-I: Loss Distribution and Reinsurance**

**09 Hours**

Probabilities and moments of loss distributions-individual and aggregate losses-moments and moment generating functions (where defined) of loss distributions including the gamma, exponential, Pareto, generalized Pareto, normal, lognormal, Weibull and Burr distributions-sets of claims-excesses (deductibles), and retention limits

Reinsurance-proportional and Excess of loss- Insurer and reinsurer –Claim ,Distribution and Moments- Estimate the parameters of a failure time using maximum likelihood and the method of moments- Distribution And Example –Inflation –Estimation-Policy Excess

**Unit-II: Risk Model and Ruin Theory**

**09 Hours**

Construct risk models - short term insurance- assumptions- moment generating function, moments of aggregate claims of the sum of N independent random variables (binomial, Poisson, geometric or negative binomial distribution)- mean, variance and coefficient of skewness for compound binomial, compound Poisson and compound negative binomial random variables- proportional and excess of loss reinsurance for insurer and the reinsurer

Concept of ruin for a risk model- state Lundberg’s inequality- Risk-aggregate claim process-cash-flow process- Adjustment coefficient for a compound Poisson process-probability of ruin in infinite/finite and continuous/discrete time and state- relationships between the different probabilities of ruin- loss function -concepts of Bayesian statistics-Bayesian estimates of parameters- Bayesian approach to credibility theory

**Unit-III: Run-Off Triangles**

**09 Hours**

Introduction-The Origins Of Run-Off Triangles-Types Of Reserves-Presentation Of Claims Data –Estimating Feature Claims. Projections Using Development Factors: Run-Off Triangles –The Chain Ladder Method –Model Checking -Other Methods of Deriving Development Factors Assumptions Underlying the Method. Adjusting For Inflation- The Inflation Adjusted Chain Ladder Method. The Average Cost per Claim Method Description of Method Application of the Method-Assumptions Underlying in the Method. Loss Ratios the Bornhuetter Ferguson Method: Concept of Bornhuetter Ferguson Method – Description of the Method –Application of the Method –Assumptions Underlying the Method –Grossing Up Factors versus Development Factors.

#### **Unit-IV: Generalized Linear Models**

**09 Hours**

Introductions -Exponential Families: Normal Distribution-Poisson Distribution –Binomial Distribution –Gamma Distribution. Link Functions and Linear Predictor Link Functions-Linear Predictor. Deviance of Model Fitting Residuals Analysis and Assessment of Model Fit- Pearson’s Chi- square test and the Likelihood ratio test

#### **Unit V: Time series models**

**09 Hours**

Introduction-Properties of a Univariate Time Series-Stationary Random Series-Notation-backwards shift operator, backwards difference operator, roots of the characteristic equation -properties of autoregressive (AR), moving average (MA), autoregressive moving average (ARMA) and autoregressive integrated moving average (ARIMA) time series-concept and properties of discrete random walks and random walks(with and without drift)- Multivariate autoregressive model-cointegrated time series-Estimation and diagnosis of a time series-Markov property-non-stationary, non-linear time series models-Extrapolation , moving average models, applying smoothing techniques and seasonal adjustment -Monte Carlo simulation using a series of pseudo-random numbers.

#### **TEXT BOOKS :**

1. The Study Material from Institute of Actuaries of India, Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CT6-Statistical Methods Or CS2-.Risk Modeling and Survival Analysis

#### **References**

1. Dobson, Annette J, An Introduction to Statistical Modelling, Chapman & Hall, 1983.
2. Hossack, Ian B, PollardJohn H, Zehnwirth, Benjamin, Introductory statistics with applications in general insurance, 2nd edition, Cambridge University Press, 1999.
3. Klugman, Stuart A, Panjer, Harry H, Willmot,Gordon E, Venter, Gary G, Loss Models: from data to decisions, John Wiley & Sons, 1998.
4. Daykin, Chris D,Pentikainen, Teivo, Practical risk theory for actuaries, Chapman & Hall, 1994



<b>MBA18R5181</b>	<b>DATA ANALYSIS AND BUSINESS MODELING LAB</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Practical		

**Course Objective(s):**

The course aims at providing fundamental knowledge and exposure of the concepts, theories and hands-on experience on decision modelling.

**Course Outcome(s):**

Knowledge of spreadsheets and data analysis software for business modeling

<b>Experiment No</b>	<b>Name of the experiments</b>	<b>Duration</b>
1	Descriptive Statistics	3
2	Hypothesis – Parametric & Non parametric	4
3	Correlation & Regression	3
4	Portfolio Selection	3
5	Risk Analysis & Sensitivity Analysis	4
6	Revenue Management	3
7	Assignment and Transportation	4
8	Inventory Model	3
9	Network Model	3

\*Business models studied in theory to be practiced using Spreadsheet / Analysis Software

**TEXTBOOKS & REFERENCE BOOKS**

1. Robert H Carver, Doing Data Analysis with SPSS: Version 18.0, 5th Ed, Cengage Learning, Delhi, 2016.
2. David M. Levine et al, Statistics for Managers using MS Excel, 8th Edition, Pearson Publications, 2016
3. David R. Anderson, et al, An Introduction to Management Sciences: Quantitative approaches to Decision Making, 15th edition, Cengage Learning Inc, 2016.
4. Paneerselvam R., Operations Research, 2th edition, Prentice Hall of India, New Delhi, 2009.
5. Hamdy A Taha, Introduction to Operations Research, 9th edition, Prentice Hall India, New Delhi, 2014.

### III

<b>MBA18R5201</b>	<b>BUSINESS ETHICS, CORPORATE SOCIAL RESPONSIBILITY AND GOVERNANCE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite : Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Theory		

**Course Objective(s):**

Students will explore the challenges inherent in creating and leading organizations that perform well financially as well as environmentally and socially. The course will cover contemporary challenges in ethics, corporate social responsibility (CSR) and sustainability through the use of some or all of the following: case studies, readings, debates, guest speakers, multimedia, peer-to-peer learning, discussions, small group activities, games and on-line activities.

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1:** To understand the Characteristics, Ethical theories and Causes of unethical behavior;
- CO2:** Student will aware of the ethical theory.
- CO3:** Analyze major characteristics and their implications for business.
- CO4:** To know the Industrial policy and framework of government contract over Business
- CO5:** Student will understand the Governance practices and regulation, Structure and development of boards.

**Mapping of Course Outcome(s):**

CO / PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>CO1</b>	M	S	M						L		L	L
<b>CO2</b>			L	M				S				
<b>CO3</b>	L				M		M	L				
<b>CO4</b>	L				M		M					
<b>CO5</b>		M				L	M					

**UNIT I INTRODUCTION**

**09Hours**

Definition & nature Business ethics, Characteristics, Ethical theories; Causes of unethical behavior; Ethical abuses; Work ethics; Code of conduct; Public good.

**UNIT II ETHICS THEORY AND BEYOND**

**09Hours**

Ethical dilemma; Ethics in practice - ethics for managers; Role and function of ethical managers- Comparative ethical behaviour of managers- Gilligan’s theory and Kohlberg’s theory- moral autonomy.

**UNIT III LEGAL ASPECTS OF ETHICS**

**09Hours**

Political – legal environment; Provisions of the Indian constitution pertaining to Business; Political setup – major characteristics and their implications for business; prominent features of Competition Act & FEMA, Competition Act 2002. Social – cultural environment and their impact on business operations, Salient features of Indian culture and values.

**UNIT IV ENVIRONMENTAL ETHICS****09Hours**

Features of Economic Planning with respect to business; Industrial policy and framework of government contract over Business; Role of chamber of commerce and confederation of Indian

**UNIT V CORPORATE SOCIAL RESPONSIBILITY AND GOVERNANCE****09Hours**

Definition- Evolution- Need for CSR; Theoretical perspectives; Corporate citizenship; Business practices; Strategies for CSR; Challenges and implementation; Evolution of corporate governance; Governance practices and regulation; Structure and development of boards; Role of capital market and government; Governance ratings; Future of governance- innovative practices; Case studies with lessons learnt.

**Text Book(s):**

1. William B. Werther and David B. Chandler, Strategic corporate social responsibility, Sage Publications Inc., 2015
2. Robert A.G. Monks and Nell Minow, Corporate governance, John Wiley and Sons, 2014.

**Reference(s):**

1. Satheesh kumar, Corporate governance, Oxford University, Press, 2014. Bob Tricker, Corporate governance- Principles, policies and practices, Oxford University Press,

<b>MBA18R5202</b>	<b>STRATEGIC MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Practical		

**Course Objective(s):**

This Lecture provides an overview of strategic management. It introduces a practical, integrative model of the strategic-management process and defines basic activities and terms in strategic management and discusses the importance of business ethics. After reading this lecture you will be able to know that: What Is Strategic Management? Discuss the nature of strategy formulation, implementation, and evaluation activities

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1 To provide the better and up-to-date information about the organization's current position and to predict where can be the organization stand in future.
- CO2 To make managers and organizational members more alert about the opportunities and threatening development in their corresponding field.
- CO3 To analyze and choose the various strategies for develop the business
- CO4 To analyze the opted strategy for evaluation and make corrective action.
- CO5 To identify the various strategic issues in the business.

**Mapping of Course Outcome(s):**

CO / PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	S	M	L					L	M	M		L
CO2	S	M	L		L	L		L	M	M		L
CO3	S	M	L	L	L	L	M	L	M	M		L
CO4	S	M	L	L	L	L	M	L	M	M		L
CO5	S	M	L			L	M	L	M	M		L

**UNIT I STRATEGY AND PROCESS**

**09hours**

Conceptual framework for strategic management, the Concept of Strategy and the Strategy Formation Process – Stakeholders in business – Vision, Mission and Purpose – Business definition, Objectives and Goals - Corporate Governance and Social responsibility-case study.

**UNIT II COMPETITIVE ADVANTAGE**

**09hours**

External Environment - Porter's Five Forces Model-Strategic Groups Competitive Changes during Industry Evolution-Globalization and Industry Structure - National Context and Competitive advantage Resources- Capabilities and competencies–core competencies-Low cost and differentiation Generic Building Blocks of Competitive Advantage- Distinctive Competencies Resources and Capabilities durability of competitive Advantage- Avoiding failures and sustaining competitive advantage-Case study.

**UNIT III STRATEGIES****09hours**

The generic strategic alternatives – Stability, Expansion, Retrenchment and Combination strategies - Business level strategy- Strategy in the Global Environment-Corporate Strategy Vertical Integration-Diversification and Strategic Alliances- Building and Restructuring the corporation- Strategic analysis and choice - Environmental Threat and Opportunity Profile (ETOP) -Organizational Capability Profile - Strategic Advantage Profile - Corporate Portfolio Analysis -SWOT Analysis - GAP Analysis - Mc Kinsey's 7s Framework - GE 9 Cell Model – Distinctive competitiveness - Selection of matrix - Balance Score Card-case study.

**UNIT IV STRATEGY IMPLEMENTATION & EVALUATION****09Hours**

The implementation process, Resource allocation, Designing organizational structure- Designing Strategic Control Systems- Matching structure and control to strategy- Implementing Strategic change-Politics-Power and Conflict-Techniques of strategic evaluation & control-case study.

**UNIT V STRATEGIC ISSUES****09hours**

Managing Technology and Innovation-Strategic issues for Non-Profit organizations, New Business Models and strategies for Internet Economy-case study

**TEXTBOOKS**

1. Charles W Hill & Jones, An Integrated Approach to Strategic Management, 12<sup>th</sup> Indian edition, Cengage Learning, Delhi, 2017.
2. Gregory Dess, Strategic Management Text and Cases, 3rd edition, Tata McGraw Hill, New Delhi, 2015.
3. John A.Parnell. Strategic Management, Theory and practice Biztantra (2012).
4. Azhar Kazmi, Strategic Management and Business Policy, 3<sup>rd</sup> Edition, Tata McGraw Hill, 08

**REFERENCES**

1. Adriaan H Aberberg and Alison Rieple, Strategic Management Theory & Application, Oxford University Press, 2008.
2. Lawrence G. Hrebiniak, Making strategy work, Pearson, 2005.
3. Gupta, Gollakota and Srinivasan, Business Policy and Strategic Management – Concepts and Application, Prentice Hall of India, 2005.
4. Dr. Dharma Bir Singh, Strategic Management & Business Policy, KoGent Learning Solutions Inc., Wiley, 2012.
5. John Pearce, Richard Robinson and Amitha Mittal, Strategic Management, McGraw Hill, 12<sup>th</sup> Edition, 2012

<b>MAS18R5201</b>	<b>Actuarial Risk Management and Practice</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Practical		

**Course Objective(s):**

The aim of the Actuarial Risk Management subject is that upon successful completion, the candidate should understand strategic concepts in the management of the business activities of financial institutions and programmes, including the processes for management of the various types of risk faced, and be able to analyse the issues and formulate, justify and present plausible and appropriate solutions to business problems.

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1:** Students will be able to gain basic knowledge Actuarial advice and Stakeholders Needs.

**CO2:** Students will be able to gain the knowledge different Actuarial Environment

**CO3:** The students will be able to examine the Specifying Problem and Project planning

**CO4:** The students will be able to gain the knowledge and Producing the Solution

**CO5:** The students will be able to examine the Exposed to Living with the Solution and Monitoring

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

**Unit-I: Actuarial advice and Stakeholders Needs**

**09 Hours**

Role of Actuaries, Responsibility, Contribution towards Business Needs, statutory roles in pensions and insurance (public and private sectors), Clients- Stakeholders-Actuaries advise and its types - issues, Functions of the clients and potential clients-Attitude, Risk, - contingent events-Products, schemes, contracts, Benefits and Limitation- Actuarial Control Cycle-Risk Management -Institute and Faculty of Actuaries -Framework , Financial Reporting Council.

**Unit-II: Actuarial Environment**

**09 Hours**

**Risk environment-** Risk management- classification- process, products, schemes, contracts-contingent events- Difference between systematic and diversifiable risk- Risk appetite, Attainment of risk efficiency- credit risk- credit ratings- liquidity risk-market risk-operational risk-business risk- methods of risk acceptance, rejection, transfer and management for stakeholders- Portfolio approach of risk- principle of pooling risks-methods of transferring risks

**Regulatory environment**- principles and aims of prudential and market conduct regulatory regimes- information asymmetry- features of financial contracts

**External environment**- implications-benefits on contingent and its Components

**Investment environment**-Cash flows of simple financial arrangements- theoretical and historical relationships between the total returns and the components of total returns, on equities, bonds and cash, and price and earnings inflation

**Capital requirements**- Measures of capital needs- assessment of economic and regulatory capital requirements and its Models.

### **Unit-III: Specifying Problem**

**09 Hours**

**Contract design**- suitable design for financial structures (products, schemes, contracts or other arrangements)

**Project planning and management** -Process - Actuarial techniques for assessment of capital investment projects, Risk and cost-benefit analyses

**Data**- Data requirements for determining values for assets, future benefits and future funding requirements- Condition for optimal level of homogeneity

Risk management-Issues, tools, methods of measuring risk, Impact. Stress testing and stochastic modeling in the evaluation of risk

### **Unit IV: Producing the Solution**

**09 Hours**

Producing the solution- **Modeling**- use of actuarial models, objectives , requirements- pricing or setting future financing strategies- risk management- assessing the capital requirements- assessing the provisions- pricing and valuing options and guarantees-

**Assumption setting- Expenses- cost and the price- Investment management-**

**Provisioning**- principles of Fair valuation- methods of risk in cash-flows- - purpose of and uses for equalisation reserves Relationship between assets and liabilities- portfolio theory for investor's liabilities

### **Unit V: Living with the Solution and Monitoring**

**09 Hours**

Living with the solution- Maintaining profitability-Determining the expected results- Reporting actual results-Asset management-Capital management-Surplus management- Insolvency and closure-Options and guarantees

**Monitoring**- monitoring process in the Actuarial Control Cycle-Principle Terms in Financial services and Risk Management.

### **TEXT BOOKS**

1. The Study Material from Institute of Actuaries of India, Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CA1-Actuarial Risk Management Or CP1-Actuarial Practice

<b>MBA18R5202</b>	<b>Modelling and Communication Practice</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Practical		

**Course Objective(s):**

The aim of the Modelling Practice subject is to ensure that the successful candidate can model data, document the work (including maintaining an audit trail for a fellow student and senior actuary), analyse the methods used and outputs generated and communicate to a senior actuary the approach, results and conclusions.

This module introduces candidates to the skill of providing effective written communication of a technical nature to a non-technical audience. It builds on the idea that actuaries, while working in technical and specialist environments, will often have to provide written communications to non-specialists. These communications need to convey appropriate information, but without unnecessary complexity

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1:** Students will be able to gain basic knowledge Data Preparation and Model Development.

**CO2:** Students will be able to examine and interpret the Model

**CO3:** The students will be able to gain the knowledge about Written communication

**CO4:** The students will be able to gain the knowledge about Oral communication

**CO5:** The students will be able to examine gain the knowledge about Workplace communication

**Mapping of Course Outcome(s):**

CO / PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	S	M	L					L	M	M		L
CO2	S	M	L		L	L		L	M	M		L
CO3	S	M	L	L	L	L	M	L	M	M		L
CO4	S	M	L	L	L	L	M	L	M	M		L
CO5	S	M	L			L	M	L	M	M		L

**Unit-I: Preparation data and Development of Model**

**09 Hours**

Introduction to data -Appropriate tools for cleaning, restructuring, Summaries data, Assumptions, Transforming data, Repair corrupt or missing data, Appropriate Statistical tests.

Introduction to Model-Development of a model and Analysis - Documentation-Plan and Produce spreadsheet model- Justification of key assumptions- methodology, reasonableness checks, sensitivities and limitations, Audit trail for Model

**Unit-II: Analysis of a model and Interpretation of results**

**09 Hours**

Analysis of methods used and model outputs-Sensitivity and/or scenario tests, Test and comment for different scenarios- Application and interpretation of results-Analyze



Problem set, suggesting solutions-Design Appropriate charts and tables-Propose the Future Work.

**Unit-III: Written Communication**

**09 Hours**

Introduction to Written Communication-Identify relevant information- Appropriate Content-Order- Clarity-Hierarchy in Documentation

Clients with a degree of financial/business awareness (Reports or letters to pension scheme trustees, company finance directors)

Non-actuarial managers (Reports, letters or memoranda to a marketing manager, customer service director, human resources director, manager or a press team, investment manager)

Individuals in a business context (letters to a pension scheme member or insurance policyholder)

**Unit-IV: Oral Communication**

**09 Hours**

Introduction to Oral Communication-Clarity in Technical terms- Appropriate tone-Clarity in Pronunciation –Proper Explanation-language- Addressing key issues- Present the points in a response in an appropriate order- Use of visual aids or ICT tools[charts (bar charts, pie charts, graphs).diagrams ,pictures ,tables of numbers, slide presentations ,bullet points, flipchart pages]

**Unit-V: Work Place Communication**

**09 Hours**

E-mails, minutes, reports of different kinds – annual report, status report, survey report, proposals, memorandums, presentations, interviews, profile of institutions, speeches, responding to enquiries, complaints, resumes, applications, summarizing, strategies for writing-Features for publication-case studies-Techniques of writing -Translation

**TEXT BOOKS**

1. The Study Material from Institute of Actuaries of India,Mumbai (The Professional body for Actuarial Studies in India) Subject Code : CA2- Model Documentation Analysis and Reporting & CA3- Communications Or CP2–Modelling Practice and CP3–Communication Practice

<b>MBA18R5282</b>	<b>PROFESSIONAL SKILL DEVELOPMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>Pre-requisite : Nil</b>					
<b>Course Category:</b> Program Core			<b>Course Type:</b> Practical		

### Course Description

This personal development course is designed to help you to discover and achieve your goals through a focus on organizing and encouraging action to make a better world. You will learn techniques that will increase your abilities in key areas; including setting and achieving goals, communication skills, self-motivation and positive mental attitude. This course will help you to develop your skills so that, every day, you will be able to get the best performance from yourself and others

### Course Outcome(s):

After completing this course, the student will be able to:

**CO1:** understand the basics of Personal Communication

**CO2:** Intends to know the social communication

**CO3:** Intends to the Group and Mass communication

**CO4:** Integrate the speaking and presentations skills

**CO5:** Identify and analyze the skills required for fulfill the corporate demands

### Mapping of Course Outcome(s):

CO / PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
CO1	S	M	L					L	M	M		L
CO2	S	M	L		L	L		L	M	M		L
CO3	S	M	L	L	L	L	M	L	M	M		L
CO4	S	M	L	L	L	L	M	L	M	M		L
CO5	S	M	L			L	M	L	M	M		L

### Unit 1: Personal Communication

**09Hours**

Day-to-day conversation with family members, neighbors, relatives, friends on various topics, context specific –agreeing/disagreeing, wishing, consoling, advising, persuading, expressing opinions, arguing

### Unit 2: Social Communication

**09Hours**

Telephone calls (official), colleagues in the workspot, discussing issues (social, political, Cultural) clubs (any social gathering), answering questions, talking about films, books, news items, T.V. programmes, sharing jokes

### Unit 3: Group/Mass Communication

**09Hours**

Group discussion (brainstorming ), debate, panel discussion, anchoring/master of ceremony, welcome address, proposing vote of thanks, introducing speakers, conducting meetings, making announcements, Just – a - minute (JAM), Block and tackle, shipwreck, spoof, conducting quiz, negotiations, oral reports.

### Unit 4: Integrated Speaking and Presentation Skills

**09Hours**

Listening to speak (any radio programme/lecture), reading to speak, writing to speak, watching to speak, (any interesting programme on TV), Reading aloud any text/speech, lecturing, PowerPoint presentation, impromptu, Interviews of different kinds (one to one, many to one, stress interview, telephonic interview)

**Unit 5: Employability and Corporate Skills**

**09Hours**

Interview skills – Types of interview, preparation for interview, mock interview. Group Discussion – Communication skills in Group Discussion, Structure of GD, GD process, successful GD techniques, skills sought out in GD – leadership and co-ordination. Time management and effective planning – identifying barriers to effective time management, prudent time management techniques, relationship between time management and stress management. Stress management – causes and effect, coping strategies simple physical exercises, simple Yoga and Meditation techniques, Relaxation techniques, stress and faith healing, positive forces of nature, relaxation by silence and music. Decision making and Negotiation skills, People skills, Team work, development of leadership qualities

**Text Book**

1. Richard Denny, “Communication to Win; Kogan Page India Pvt. Ltd., New Delhi, **2015**.
2. “Value Education”, VISION for Wisdom, Vetha thiri Publications, Erode, **2016**

**Reference Books**

1. Shalini Varma, “Development of Life skills and Professional Practice”, Vikas Publishing, **2014**

<b>MBA18R5298</b>	<b>INDUSTRIAL TRAINING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>0</b>	<b>0</b>	<b>12</b>	<b>6</b>
<b>Pre-requisite: Nil</b>					
<b>Course Category: In Plant Training</b>			<b>Course Type: In Plant Training</b>		

**Course Objective(s):**

This course is designed in such a way Participants will be introduced to the principles of effective assessment of student learning both from a formative (i.e., assessment for learning) and summative (i.e., assessment of learning) perspectives. Participants will also be offered an opportunity to explore different ways of providing feedback throughout the learning process and think about possible uses of an ePortfolio to help students document their learning.

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1:** Able to provide high quality, comprehensive, effective professional developmental opportunities that meet the ever-increasing demands of professional.
- CO2:** Provide planned instructional activities and learning experiences that are likely to ensure the achievement of your identified learning outcomes.
- CO3:** Apply academic knowledge in practical and creative ways and Utilize critical thinking, reflective listening and effective reasoning skills.
- CO4:** Advance the students' intellectual curiosity, competency and skills and Develop critical thinking, creativity and effective communication.
- CO5:** It Allows every individuals to discover their own strengths and weaknesses as emerging professionals.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

Students should undergo Inplant Training for successful completion of the MBA programme. It aims at developing insight and capabilities in the students for in depth study, research, interpretation, and analysis on a particular chosen topic in any reputed institution or organization. In plant Training has to be selected with respect to the programme of study and area elected by the student. The report will contain the objectives and scope of the study. Research methodology, use, importance of the study, analysis of data collected, conclusions and recommendations. It should contain relevant charts, diagrams and bibliography. A certificate of the Supervisor and the Head of the MBA program certifying the authenticity of the report shall be attached therewith. The student will submit three copies of the report to the Project Coordinator. The Research Work is evaluated for 100 marks. Grade will be given accordingly. Two Inplant Training reviews will be conducted during this period of time frame and final evaluation is done with Viva Voce by the External Examiner.

## IV

<b>Subject Code</b>	<b>Subjects</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
MBA18R5299	Project Work	0	0	20	10
	<b>Total Credit</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>10</b>

## **GROUP I (INSURANCE SERVICES)**

<b>Paper No.</b>	<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
1.	MAS18R5204	Pension and Other Employee Benefits	4	0	0	4
2.	MAS18R5205	Business awareness module	4	0	0	4
3.	MAS18R5206	FOREX management	4	0	0	4
4.	MAS18R5207	Financial Economics	4	0	0	4
5.	MAS18R5208	Asset and Liability Management	4	0	0	4
6.	MAS18R5209	Insurance Product Design & Futures	4	0	0	4

<b>MAS18R5204</b>	<b>Pension and other Employee Benefits</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite :</b> MBA18R5104-Pimciples of Banking and Insurance					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Actuarial Risk Management subject is that upon successful completion, the candidate should understand strategic concepts in the management of the business activities of financial institutions and programmes, including the processes for management of the various types of risk faced, and be able to analyse the issues and formulate, justify and present plausible and appropriate solutions to business problems.

**Course Outcome(s):**

After completing this course, the student will be able to:

CO1: To understand the political, economic and social environment factors which provide the context for

pensions planning.

CO2: To understand to demonstrate knowledge and understanding of risk management and uncertainty

management.

CO3: To understand and critically discuss how firms make mergers and acquisitions and how they structure and finance them.

CO4: To analyze issues related to the objectives of financial reporting, policies and standards.

CO5: To explain how the Global Reinsurance market place operates and main market practice.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

UNIT-I

09 Hours

Provision of pensions and other benefits — provision of pension and other benefits – Rolls of the Pensions Regulator, employers or groups of employers, individuals or groups of individuals, trustees, actuaries, investment advisers, other advisers - alternative systems of social security — Mandatory individual accounts- Occupational pension scheme- personal pensions-Needs of parties- implications for the parties.

UNIT-II

09 Hours

Risks and uncertainties affecting - incidence of benefits - contributions - overall security of benefits - Financing the benefits — time contribution- characteristics of investment — payment dues — Sponsor covenant — Suitable design for benefits and contribution-risks and uncertainties.

UNIT-III

09 Hours

Problems in company purchase or merger - different interests and responsibilities - Pensions Clause of a Sale - Process of population projection — Socio-economic factors - Actuarial models for decision making purposes in non state pensions - Actuarial methods to financial management of social security scheme — Assumptions for valuing future benefits.

UNIT-IV

09 Hours

Value of assets, future benefits and contributions — application of actuarial methods to contribution of pension schemes : Viability, robustness— conversion of individual accounts — retirement income planning and pension grantees — future operating expenses.

UNIT-V

09 Hours

Principles behind the determination of discontinuance terms - rights of beneficiaries - method of provision of discontinuance- level of available assets - Asset-liability matching for pensions and related benefits — re-insurance, risk and uncertainties of pensions — Sources of surplus/deficit for a benefit provider- Actuarial control cycle - asset-liability matching requirements - trade-off - Produce coherent advice and recommendations.

Recommended Text

1. Jeery S Rosen bloom "The Handbook of Employee benefits" 6th edition ,Mc Graw Hill
2. Richard M Stienberg " Pension and other employee benefits" 4th Edition 2014, Wiley and sons

Reference Books

1. Robert Julius Myers “Indexation of pension and other benefits” Published for the Pension Research Council, Wharton School, University of Pennsylvania by R. D. Irwin, 2012
2. Marie Bechtel, Jon E. Heywood “Dividing Pensions and Other Employee Benefits in California Divorces” Continuing Education of the Bar--California, 2011



<b>MAS18R5205</b>	<b>Business Awareness Module</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite</b> : MAS18R107-Survival Model Analysis MAS18R108-Risk Model Analysis					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Actuarial Risk Management subject is that upon successful completion, the candidate should understand strategic concepts in the management of the business activities of financial institutions and programmes, including the processes for management of the various types of risk faced, and be able to analyse the issues and formulate, justify and present plausible and appropriate solutions to business problems.

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1 To demonstrate an understanding of the major functional areas of Business.
- CO2 To make an informed judgment about whether or to what extent a financial market satisfies the conditions of an efficient market.
- CO3 To identify the main factors that could detract from the that efficiency for primary and secondary market.
- CO4 To assess whether the regulatory environment for financial services is effective.
- CO5 To demonstrate knowledge of the range of financial and financial related risks facing organizations.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

UNIT-I

09 Hours

Financial System:-Financial environment:- Real Assets Vs Financial Assets – Role of Financial System – Market Structure – Recent Trends:-Globalisation - Securitisation – Financial Engineering – Computer Networks – Derivatives - ADRs and GDRs – GDRs:- Advantage for Issuers – Benefit for Investors -Securitisation – Jargons- Features of securitization – Current Securitisation activity in India.

UNIT-II

09 Hours

Financial Markets & Instruments – Financial Markets – Functions of Financial Markets- Organisation of Financial Markets – Types of Financial Markets: - Primary & Secondary Markets – Short Term (Money) and Long Term (Capital) Market:- Money Market

Instruments:- Call money - Repos- Collateralised Lending and Borrowing – Treasury Bills – Commercial paper – Certificate of Deposit – Commercial Bills – Capital Market Instruments :- Central Government Securities – State Government securities and Public Sector bonds – Corporate bonds and debentures – Equity Shares – Preference Shares – Warrants - Spot & Deferred Delivery Market – Derivative Products :- Forwards – Futures – Options - Regulation of Financial Markets.

#### UNIT-III

09 Hours

Primary & Secondary Markets : Introduction – Primary Markets: - Classifications of Issue :-On the basis of Price – On the basis of subscribers – A Preferential Issue – Issue to the existing shareholders - Pricing of an Issue- Book Building process – Auction of T-bills and GOI securities - Offer Document – Steps involved in Public & Rights Issue – Listing and Delisting - Secondary Market: - Trading on Stock Exchanges:- Screen Based Trading- Contract Note – Depository- Settlement – Custodian – Technology in trading and settlement - Trading on Over the Counter / Dealer Market – Stock Market Indices – Index Construction – Equity Indices – BSE Indices – NSE Indices – Debt Market Indices.

#### UNIT-IV

09 Hours

Macro Economy & Financial Services Industry: Aspects of Global Economy and Politics: - Economic Factors – National Income – Gross National Product (GNP) – Gross Domestic Product (GDP) – Per Capita Income – Savings as a % of GDP – Inflation and Recession – Monetary & Fiscal Policy – Life Insurance – General Insurance - Challenges and Issues: Challenges facing Insurance Industry – Issues in Insurance Industry.

#### UNIT-V

09 Hours

Actuarial profession- Overview – Introduction to profession and professionalism – Characteristics of the Actuarial profession -Actuary in Financial Services Industry: - Role of Actuaries:- Insurance Business-valuation of liabilities- profit distribution- product design and product pricing- profit testing- Assessment of solvency – Investigation of investment policy – investigation of new business risks – General Insurance:- Premium rating – Estimation of liabilities – collecting and presentation of information – Reinsurance requirements – Health insurance - Role of an appointed Actuary – Role of an Actuary-other areas - Skills required for the Actuary – Acquiring Knowledge about the Aspects of the Company where Actuary is employed

#### Recommended Text

1. Prof. Dr. OlafPassenheim, “Enterprise Risk Management” , 1st edition, Prentice Hall of india

#### Reference Book

1. Ray C. Anderson “Business Lesson from a Radical Industrialist”, 2009, Pearson Publications

<b>MAS18R5206</b>	<b>FOREX management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite :</b> MBA18R5104-Pinciples of Banking and Insurance					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

This course addresses the problems faced by small business firms in handling foreign exchange (FX) transactions. The first part of the course examines the working of FX markets and the settlement systems used by small companies. The second section of the course investigates how exchange rates are determined and if changes in the exchange rate can be predicted. The third part of the course studies why firms position against exchange risk and how to measure exposure to exchange rates. In the fourth section of the course, we examine the valuation of international products, and the financial risk faced with delays in foreign exchange settlements.

**Course Outcome(s):**

After completing this course, the student will be able to:

<b>CO1</b>	:	To understand how the foreign Exchange Market operates
<b>CO2</b>	:	To understand the principles of Currency valuation
<b>CO3</b>	:	To explain techniques that can be used to hedge foreign exchange risk
<b>CO4</b>	:	To create an understanding on foreign exchange Management in India
<b>CO5</b>	:	To explore impact of forex management on Indian economy.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

**FOREIGN EXCHANGE**

**09 Hours**

Concepts, significance of foreign exchange- FOREX RESERVES- Exchange rates- inter banks and Merchant rates- spot and forward rates-TT rates- computations-FOREX Markets—derivate in the FOREX markets- Futures, Swaps, Options and Arbitrage- Forex dealers and Speculators Organizations of the FOREX market.

**EXCHANGE RATE FIXATION**

**09 Hours**

Purchasing Power Parity Theory- Interest Rate Parity Theory- Flow Model- Asset market models-forecasting of exchange ratesNominal Effective Exchange Rates and real Effective Exchange rates- Hedging against Exchange rate fluctuations.

### **FORWARD EXCHANGE CONTRACTS**

**09 Hours**

Relevance-types- forward exchange rate computation – factors influencing forward RATES- extension and cancellation of forward contracts- Futures-features vs Forward contracts-Options- types and Mechanisms-risk Management through forward contracts.

### **FOREX RISK MANAGEMENT**

**09 Hours**

Transaction risk exposure risks- internal strategies- shifting of risk- sharing of risk- exposure netting and offsetting External strategies – money market Hedge- currency swaps- interest rate swaps- Economic consequences of exchange rate changes- Managing Risk .

### **FOREX MANAGEMENT IN INDIA**

**09 Hours**

Fixed and fluctuating rates-rupee convertibility NOSTRO-VOSTRO-LORO Accounts- Exchange control Measures- relevance Foreign Exchange reserves of India- composition and Management- monetary and Fiscal policy and its impact on foreign exchange reserves in India.

### **TEXT BOOK**

1. M.Y. Khan & P.K. Jain : Financial Management – Text and Problems; Tata McGraw Hill Publishing Co. Ltd., New Delhi, 2015
2. Prasanna Chandra : Financial Management – Theory & Practice; Tata McGraw Hill Publishing Co. Ltd., New Delhi, 2014

### **REFERENCE BOOKS**

1. Jeevanandam C., Foreign Exchange, Practice, Concepts & Control, Sultan Chand & Sons, New Delhi, 2016
2. Chaudhuri BK & Agarwal OP, Foreign Trade & Foreign Exchange, HimalayaPublishing House, Mumbai, 2016
3. Apte PG, International Financial Management, Tata McGraw Hill PublishingCompany Ltd., New Delhi, 2015
4. Rajwade AV, Foreign Exchange, International Finance & Risk Management,Academy of Business Studies, New Delhi, 2014
5. Indian Institute of Banking and Finance, International Banking, Mumbai, 2014

<b>MAS18R5207</b>	<b>Financial Economics</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite : MAS18R5103 Financial Engineering and Loss Reserving</b>					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Actuarial Risk Management subject is that upon successful completion, the candidate should understand strategic concepts in the management of the business activities of financial institutions and programmes, including the processes for management of the various types of risk faced, and be able to analyse the issues and formulate, justify and present plausible and appropriate solutions to business problems.

**Course Outcom(s):**

CO1 To recognize and appreciate the diversity of views that have historically been expressed or may reasonably exist about economic problems and alternative economic systems

CO2 To explain market structure, including perfect competition, imperfect competition under which a firm operates.

CO3 To explain the income approach to computing GDP, & evaluate other measures of nations production of goods and services.

CO4 To demonstrate an integration of the subdivisions and the application of these subdivisions to current economic issues and problems.

CO5 To understand the ideas, concepts, tools, theories, and models of economics.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

Unit: I : 09 Hours  
 Introduction to economics - Supply and demand – Elasticity - Consumer choice - Utility and investors - Stochastic dominance, utility and insurance

UNIT II: 09 Hours  
 Market Structure - Theory of the firm - Perfect competition- Imperfect competition - Introduction to macroeconomics - Public finance and money

UNIT III: 09 Hours

National income- The Keynesian model - The money market - Aggregate demand and aggregate supply

UNIT IV:

09 Hours

Macroeconomic policy - Inflation and unemployment - Economic growth - International trade and the balance of payments - Exchange rates.

UNIT V:

09 Hours

Hypocrites of option prices – determinants of option prices – upper and lower bounds for option prices – Black Scholes analysis and arbitrage free pricing – numerical procedures used in derivative pricing and valuation.

#### Recommended Text

1. Financial Economics by Zvi Bodie, David Cleeton, Robert C. Merton 2008.
2. Annual Review of Financial Economics by Andrew W. Lo, Robert C. Merton 2009.
3. Microeconomic Theory, by Edward Malinvaud 2016

#### Reference Books

1. Finance, Economics, and Mathematics by Oldrich A Vasicek, Robert C. Merton, 2015
2. Financial Economics Frank J. Fabozzi, Edwin H. Neave, Guofu Zhou October 2011, ©2012
3. Macroeconomics + Code Card for Discover Econ by Campbell R. McConnell, et al. 2012

<b>MAS18R5208</b>	<b>ASSET AND LIABILITY MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite :</b> MBA18R5104-Pinciples of Banking and Insurance					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Asset and Liability Management program is to provide focused, practical training in all the key management issues of this important discipline. The program will have a particular focus on Interest Rate Risk in the Banking Book (IRRBB) within commercial bank structures. The program will cover all major methodologies for the measurement and management of IRRBB and best practice hedging techniques. Sessions are reinforced with team-based, practical case studies, worked examples and suggested solutions.

**Course Outcome(s):**

After completing this course, the student will be able to:

<b>CO1</b>	:	To identify the banking system of the country.
<b>CO2</b>	:	To analyze the all risks pertaining with our banking process.
<b>CO3</b>	:	To describe the Asset management system of the banking organization.
<b>CO4</b>	:	To describe the Liability management system of the banking organization.
<b>CO5</b>	:	To examine the various tools of Asset and Liability Management.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

**UNIT-I : BANKING SYSTEM**

**09 Hours**

Banking Functions and Operations - Types of Banks - Audit of Banks - Competition in the Banking System - Bank Supervision and Surveillance - Customers of Banks - Bank products and Services - Relationships with Other Institutions

**UNIT-II :BANKING RISKS****09 Hours**

Capital Adequacy Risk - Asset Quality Risk - Management Risk - Earnings, Efficiency and Profitability Risk - Liquidity Risk - Credit Risk - Interest Rate Risk - Interest Rate Sensitivity/Gap/Mismatch Risk - Foreign Exchange Risk - F/X Position Risk - Strategic Risk

Reputation Risk - Market Risk - Operations Risk - Fiduciary Risk - Contingencies and Commitments Risk - Regulatory/Legal/Compliance Risk - Accounting and Reporting Risk - - Computer Risk - Country/Sovereign Risk - Capital Markets Risk - Money Markets Risk - Pricing Risk - Concentration Risk - Default Risk - Large Deposit/Loan Risk - Fraud/Defalcation/Misuse/Theft/Robbery Risk - Natural Disaster Risk.

**UNIT-III :ASSET MANAGEMENT****09 Hours**

Types of Assets - Characteristics of Assets - Asset Behavior - Asset Quality - Asset Concentration - Asset Maturity Management - Asset Income Management - Asset Mix Management - Managing Non-Interest Earning Assets - Asset Management Strategies

**UNIT-IV :LIABILITY MANAGEMENT****09 Hours**

Types of Liabilities - Characteristics of Liabilities - Liability Behavior - Quality of Liabilities - Liability Concentration - Liability Maturity Management - Liability Expense Management - Liability Mix Management - Liability Management Strategies

**UNIT-V :ASSET AND LIABILITY MANAGEMENT TOOLS****09 Hours**

ALCO Asset and Liability Management Committee - ALM Strategies - Duration Analysis - Risk Management Concepts - VAR value at Risk Analysis - Stress Test - Scenario Analysis - Role of Securitization in ALM, Asset Securitization - Forward, Swaps, Futures, Options, Hedging - ALM Asset and Liability Management and the Banking Law.

**TEXT BOOK**

1. Jawwad AhamedFarid: Asset Liability Management. 3rd Edition; Tata McGraw Hill Publishing Co. Ltd., New Delhi, 2015
- 2.

**REFERENCE BOOKS**

1. Risk Management in Banking by Joel Bessis, Sultan Chand& Sons, New Delhi, 2016
2. Managing Bank Capital by Chris Matten, HimalayaPublishing House, Mumbai, 2016
3. Apte PG, International Financial Risk Management, Tata McGraw Hill Publishing Company Ltd., New Delhi, 2015



<b>MAS18R5209</b>	<b>Insurance Product Design &amp; Futures</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite :</b> MBA18R5104-Pinciples of Banking and Insurance					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

The aim of the Asset and Liability Management program is to provide focused, practical training in all the key management issues of this important discipline. The program will have a particular focus on Interest Rate Risk in the Banking Book (IRRBB) within commercial bank structures. The program will cover all major methodologies for the measurement and management of IRRBB and best practice hedging techniques. Sessions are reinforced with team-based, practical case studies, worked examples and suggested solutions.

**Course Outcome(s):**

After completing this course, the student will be able to:

**CO1 To Identify what insurance is, why insurance works and how to determine insurance need**

**CO2 To explain insurance operation, including functions of insurance, and the use of insurance as a tool to avoid losses and reduce risk**

**CO3 To familiarize themselves with major insurance products, such as life insurance, health insurance, property and liability insurance.**

**CO4 To compare various kinds of insurance plans as well as the contract selection criteria from a cost - benefit point of view.**

**CO5 To use insurance as a device to manipulate non-public and/or organization property.**

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	<b>S</b>	<b>M</b>	<b>L</b>					<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO2</b>	<b>S</b>	<b>M</b>	<b>L</b>		<b>L</b>	<b>L</b>		<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO3</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO4</b>	<b>S</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>
<b>CO5</b>	<b>S</b>	<b>M</b>	<b>L</b>			<b>L</b>	<b>M</b>	<b>L</b>	<b>M</b>	<b>M</b>		<b>L</b>

Unit :I 09 Hours  
Insurance Product: Insurance – History - Regulation and Control - Types of Insurance – Contract and Policy – Life insurance products.

Unit : II 09 Hours

Practice of life insurance: introduction – organizing – importance activities – Agent – interim Bonus – Death Cover – joint life policies – Survival Benefit - Term Assurance – Pure Endowment .

Unit : III 09 Hours  
Practice Of General Insurance : The Insurance Act, 1938 - General Insurance Council – Employee’s State Insurance Act, 1948 - - Fire and Marine Coverage’s - Miscellaneous Coverage’s - Specialized Insurances

Unit : IV 09 Hours  
Regulations of insurance business: Main functions of IRDA and Insurance Councils - IRDA (Licensing of Insurance Agents) Regulations, 2000 - IRDA (Micro Insurance Regulations), 2005.

Unit : V 09 Hours  
Financial Derivatives : Introduction - The Structure of Options Markets - The Structure of Forward and Futures Markets - Principles of Pricing Forwards, Futures, and Options on Futures- Futures Arbitrage Strategies.

#### Recommended Text

1. Life Insurance - Kenneth Jr.Black , Publisher : Prentice Hall, 12th Edition – 2014.
2. Law of Insurance – Dr. Avar Singh – 3rd Edition 2016.

#### Reference books

1. Life Insurance Textbook Part A Learning material on Life insurance for the Institute of Actuaries of Australia Part III Course 2A Life Insurance. Edition v1, June 2016 © Institute of Actuaries of Australia 2016.
2. Insurance Laws – Bharat Law House – 17th Edition , 2015.

## ELECTIVES

### **GROUP II (FINANCE & BANKING SERVICES)**

<b>Course Code</b>	<b>Course Title</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
MBA18R5214	Financial Derivatives	4	0	0	4
MBA18R5215	Financial Institution and Services	4	0	0	4
MBA18R5218	Micro Finance	4	0	0	4
MBA18R5220	Security Analysis and Portfolio Management	4	0	0	4
MBA18R5266	Financial Inclusion	4	0	0	4
MBA18R5269	International Banking : Legal and Regulatory Aspects	4	0	0	4

<b>MBA18R5214</b>	<b>FINANCIAL DERIVATIVES</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite:</b> MBA18R5111-Financial Management					
<b>Course Category:</b> Major Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

This course aims to providing an in-depth understanding of financial derivatives in terms of concepts, structure, instruments and trading strategies for profit and risk management.

**Course Outcome(s):**

Upon completion of the course students are able to

- CO1** Explain the financial derivatives and the institutional structure of the markets
- CO2** Demonstrate the various theories of derivatives .
- CO3** Develop the analytical tools necessary to price instruments.
- CO4** Assess the risk level of Identify the right time for buying and selling securities by performing technical analysis.
- CO5** Analyze, select, and monitor clients and their own portfolio by evaluation, construction and revision.

**Mapping of Course Outcome(s):**

CO/ PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>CO1</b>	H	M										
<b>CO2</b>	H	H								M		M
<b>CO3</b>	H	H		M	H		H			M		
<b>CO4</b>	M	H				H	H					
<b>CO5</b>	H						H					M

**Unit 1:INTRODUCTION**

**09 Hours**

Brief History of Derivatives, Evolution of Commodity, Currency, Stocks and Interest Rate Derivatives- Structure of Derivative Markets - Differences between Cash and Future Markets – Types of Traders – OTC and Exchange Traded Securities – forward contracts, futures contracts – Options – Swaps – Types of Settlement – Uses and Advantages of Derivatives – Risks in Derivatives – Cases (Barings Bank, MG refining Marketing Inc (MGRM)).

**Unit 2:THEORY OF DERIVATIVES**

**09 Hours**

Random behaviour of assets – Black, scholes model, binomial model - Interest rate derivatives – Internal rate modeling - Futures – stock index, currency, forwarding futures, swaps.

**Unit 3:OPTIONS****09 Hours**

Types: barrier options – path-dependent options, Asian options, look back options - Defects in Black – Scholes model, discrete hedging, transaction costs, stochastic volatility, speculating with options hedging.

**Unit 4:PORTFOLIO MANAGEMENT****09 Hours**

Value at risk – Credit risk, credit derivatives, risk metrics, credit metrics and crash metrics - Pricing derivative securities.

**Unit 5:DERIVATIVES IN INDIA****09 Hours**

Evolution of Derivatives Market in India – regulations, framework, exchange trading in derivatives – Commodity Futures – Contract Terminology and Specifications for Stock Options and Index Options in NSE – Contract Terminology and specifications for stock futures and Index futures in NSE – Contract Terminology and Specifications for Interest Rate Derivatives.

**TEXT BOOKS**

1. John. C. Hull, Options, Futures and other Derivative Securities, 1<sup>st</sup> edition, Prentice Hall India Pvt., Ltd., 2005.
2. Gupta S. L. (2010). Financial Derivatives. New Delhi: Prentice Hall of India Limited

**REFERENCES**

1. Keith Redhead, Financial Derivatives – An Introduction to Futures, Forwards, Options and SWAPs, 1<sup>st</sup> edition, Prentice Hall India Pvt. Ltd., 2004.
2. Vohra N.D. and Bagri. P.R., Futures and Options, 2<sup>nd</sup> edition, Tata McGraw Hill, New Delhi, 2003.
3. Hall, Global Derivatives: A Strategic Risk Management Perspective Andersen, 2<sup>nd</sup> edition, Prentice Hall India Pvt., Ltd., 2006.
4. Hull, Fundamentals of Futures and Options Markets, 5<sup>th</sup> edition, Prentice Hall of India Pvt. Ltd., New Delhi, 2006.

<b>MBA18R5215</b>	<b>FINANCIAL INSTITUTION AND SERVICES</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite:</b> MBA18R5111-Financial Management					
<b>Course Category:</b> Major Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

The core objectives of this course are to understand the theories of financial intermediaries and the importance role of financial institutions in the global economy and evaluate the performance of different types of financial institution. And also identify the main types of risk financial institutions are exposed to and apply different methods to measure those risks to suit different contexts.

**Course Outcome(s):**

After completing this course, the student will be able to:

- CO1:** Describe the dimensions of performance and risk relevant to financial firms. And Calculate contemporary measures of financial measures of performance and risk.
- CO2:** Describe contemporary managerial risk management oversight processes and explain how the financial services component industries (insurance, banking, securities, real estate and financial planning) interact among themselves.
- CO3:** Design hedging strategies to manage market risks (e.g., currency, commodity, economic and political).
- CO4:** Evaluate the economic environment and the impact of governmental economic policies on consumers and financial institutions.
- CO5:** Describe the impact that financial innovation, advances in technology, and changes in regulations has had on the structure of the financial firms/industry.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	S	S	M								
<b>CO2</b>						S		M				
<b>CO3</b>						L	M	S				
<b>CO4</b>			S				M	M				
<b>CO5</b>				S								

**Unit 1:Introduction to Banking**

**09 Hours**

Indian Financial System - Liberalization in Banking Sector - Banking Services - Risk Management - Bank Norms, Banking Regulation Act, ATM – online banking.

**Unit 2:Commercial Bank**

**09 Hours**

Size, Structure, and Composition of Industry, Wholesale and Retail Banking Services, Regulators and Types of Regulation, Global Issues.

**Unit 3:Investment Bank**

**09 Hours**

Securities Firm and Investment Bank, Services and Trading of Securities firm and Investment Bank, Cash management, Mergers and acquisitions, Regulation.

**Unit 4: Lending Institutions and Insurance Companies****09 Hours**

Savings Associations, Savings Banks, Credit unions, Finance companies - Size, structure, and composition of Industry, Regulators and Types of Regulation. Life Insurance Companies and Casualty Insurance Companies, Recent trends and Regulation, Global Issues.

**Unit 5: Fund Based Services****09 Hours**

Bills discounting – Debt Securitization – Housing finance – Insurance Services, venture Capital Financing – Stock Broking – Credit Rating – Real Estate Financing

**Text Book(s):**

1. Peter S. Rose, Sylvia C. Hudgins, (2014). Bank Management and Financial Services, 8/e; New Delhi: Tata McGraw-Hill.
2. Khan, M.Y. (2015). Financial Services, 8/e; New Delhi: McGraw Hill Education.

**Reference(s):**

1. Shanmugam, R. (2014). Financial Services, New Delhi: Wiley India
2. Gurusamy, Financial Services and Markets, 1<sup>st</sup> edition, Thomson Learning, New Delhi, 2007.
3. Zvi Bodie, Alex Kane, Alan J Marcus and Pitabas Mohanty, Investments, 6th edition, Tata Mc-Graw Hill, New Delhi, 2006.
4. Jeff Madura, Financial Markets & Institutions, 7th Edition, CENGAGE Learning, Delhi, 2006.
5. Agarwal, OP, Banking & Insurance, Himalaya Publishing House, Mumbai
6. George E Rejda, Principles of Risk Management & Insurance, Pearson Education, New Delhi
7. Joshi and Joshi (2009). Managing Indian Banks: The Challenges Ahead, 3/e; New Delhi: Sage Publications

<b>MBA18R5218</b>	<b>MICRO FINANCE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite:</b> MBA18R5111-Financial Management					
<b>Course Category:</b> Major Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

This course introduces microfinance as a tool for social and rural development. On completion of this course the students will be able to, recognise various credit lending models, identify role of microfinance institutions and assess the risk associated with microfinance

**Course Outcome(s):**

Upon completion of the course students are able to

- CO1** Elaborate the manner in which microfinance may be utilized to accelerate the expansion of local micro businesses
- CO2** Be familiar with the process of finding loan recipients and delivering a microfinance pitch
- CO3** Be knowledgeable about the benefits and controversies of microfinance in modern economies
- CO4** Measure the effects and value of individual microloans to businesses
- CO5** Demonstrate the process of microloans and its corresponding application process, with emphasis in public profile creativity

**Mapping of Course Outcome(s):**

CO/ PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>CO1</b>	S				M							
<b>CO2</b>				L			S					
<b>CO3</b>			M		S							
<b>CO4</b>		M					S					
<b>CO5</b>			S					M				

**Unit 1: INTRODUCTION TO MICROFINANCE**

**09 Hours**

Fundamentals of Microfinance – Evolution of Microfinance – Need and Objectives of the Microfinance Institution - Supply, Intermediation and Regulations of Microfinance - Government Mandates for Sectoral Credit Allocations - Strategic Issues in Microfinance. Micro finance models - Generic models viz. SHG, Grameen, and Co-operative, variants SHG NABARD model, SIDBI model, SGSY model, Grameen Bangladesh model, NMDFC model, credit unions etc. unbranded primitive models - Emerging practices of Microfinance in India state wise cases, Emerging Global Microfinance practices.

**Unit 2: PRODUCTS AND SERVICES**

**09 Hours**

Financial Intermediation – Credit - Savings – Insurance – Credit Cards and Smart Cards – Payment Services – Social Services.

**Unit 3: DESIGNING AND MONITORING FINANCIAL PRODUCTS AND SERVICES**



**09 Hours**

Cash Patterns, Loan Terms, and Payment Frequency – Client Cash Patterns and Loan Amounts – Loan Collateral – Loan Pricing – Calculating Effective Rates – Demand for Savings Services – Legal Requirements for Offering Voluntary Savings Services – Types of savings Product for Micro entrepreneurs – Liquid Accounts – Semi liquid Accounts – Fixed - Term Deposits.

**Unit 4: MEASURING PERFORMANCE**

**09 Hours**

Accounting Adjustments – Adjusting for Subsidies and Inflation – Portfolio Quality – Productivity and Efficiency Ratios, financial viability, profitability ratios – Leverage and Capital Adequacy – Performance Management, delinquency management, productivity and efficiency management – Risk Management

**Unit 5: MICROFINANCE IN INDIA**

**09 Hours**

Challenges to Microfinance movement – Demand and Supply of Micro financial services – State Intervention in rural credit – RBI Initiatives - NABARD & SHG – Bank Linkup & Programs- – Governance and the constitution of the Board of various forms of MFIs – Intermediaries for Microfinance –State sponsored Organizations.

**TEXT BOOKS**

1. Seethapathi K., Sivaram Y.G. and Rama Krishna Rao, Financial Intermediation: Innovations and Practices, 2<sup>nd</sup> edition, Icfai University Press, Hyderabad, 2004.
2. Nageswara Rao Katuri, Rural Credit and Micro Finance, 1<sup>st</sup> edition, Icfai University Press, Hyderabad, 2006.

**REFERENCES**

1. SN Ghosal, Some Radical Thoughts on Microfinance, 5<sup>th</sup> edition, Icfai University Press, Hyderabad, 2005.
2. Y Chandra Sekhar, Urban Infrastructure: An Introduction, 2<sup>nd</sup> edition, Icfai University Press, Hyderabad, 2005.
3. Hawawini, Finance for Executives: Managing for Value Creation, 2<sup>nd</sup> edition, Thomson Learning, New Delhi, 2007.
4. Armendáriz, Beatriz, and Marc Labie (eds.). 2011. The Handbook of Microfinance. Singapore: World Scientific.
5. Armendáriz de Aghion, Beatriz, and Jonathan Morduch. 2005. The Economics of Microfinance. Cambridge, MA and London: The MIT Press.
6. Joanna Ledgerwood. 2013. The New Microfinance Handbook. A Financial Market System Perspective. Washington, D.C: The World Bank
7. Labie, Marc, and Roy Mersland. 2011. “Corporate Governance Challenges in Microfinance”. In The Handbook of Microfinance edited by Beatriz Armendáriz and Marc Labie, 283-298. Singapore: World Scientific
8. Ledgerwood, Joanna et al. 2013. “Chapter 14. Monitoring and Managing Financial and Social Performance”. In The New Microfinance Handbook. A Financial Market System Perspective, edited by Joanna Ledgerwood et al., 341-349. Washington, D.C: The World Bank.
9. Beatriz Armendariz and Jonathan Morduch, “The Economics of Microfinance”, Prentice-Hall of India Pvt. Ltd. Delhi, 2005.

<b>MBA18R5220</b>	<b>SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite:</b> MBA18R5111-Financial Management					
<b>Course Category:</b> Major Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

1. To familiarize the student with the various types of securities and functioning of stock markets.
2. To impart the knowledge in government regulations and legal issues related securities.
3. To equip the student to understand the economic, industry and company related factors on the price behaviour of securities.
4. To provide insight to the various analytical techniques used in evaluation and valuation of the securities.
5. To provide skills needed to create and maintain an appropriate portfolio for a client and for themselves

**Course Outcome(s):**

Upon completion of the course students are able to

- CO1** Identify the various investment alternatives and construct investment planning.
- CO2** Know about Capital Market, participants and its procedure for trading and fund raising.
- CO3** Analyse the economic, industry and company factors and predict the company performance and determine the intrinsic value of an asset.
- CO4** Identify the right time for buying and selling securities by performing technical analysis.
- CO5** Analyze, select, and monitor clients and their own portfolio by evaluation, construction and revision.

**Mapping of Course Outcome(s):**

CO/ PO	PO											
	1	2	3	4	5	6	7	8	9	10	11	12
<b>CO1</b>	H	M										
<b>CO2</b>	H	H								M		M
<b>CO3</b>	H	H		M	H		H			M		
<b>CO4</b>	M	H				H	H					
<b>CO5</b>	H						H					M

**Unit 1: INVESTMENT SETTING**

**09 Hours**

Investment setting – Securities – Sources of investment information – Security market indications – Security Contract regulation Act. Investor Protection.

**Unit 2: CAPITAL MARKETS**

**09 Hours**

Over view of capital market, Institutional structure in capital market, Reforms and state of capital market, New issue market and problems, Securities and Exchange Board of India (SEBI), Debt Market, Stock Exchanges –NSE, BSE and MCA.

**Unit 3: FUNDAMENTAL ANALYSIS**

**09 Hours**

Economic Analysis – Economic forecasting and stock Investment Decisions – Forecasting techniques. Industry Analysis – Industry classification. Economy and Industry Analysis. Industry life cycle – Company Analysis Measuring Earnings – Forecasting Earnings – Applied Valuation Techniques – Graham and Dodds investor ratios.

**Unit 4: TECHNICAL ANALYSIS**

**09 Hours**

Fundamental Analysis Vs Technical Analysis – Charting methods – Market Indicators. Trend – Trend reversals – Patterns - Moving Average – Exponential moving Average – Oscillators – ROC Momentum – MACD – RSI – Stoastics.

**Unit 5: PORTFOLIO MANAGEMENT**

**09 Hours**

Portfolio Theory – Portfolio Construction – Diagnostics Management – Performance Evaluation – Portfolio revision- Mutual Funds

**TEXT BOOKS**

1. Reilly K. and Keith C. Brown, Investment Analysis and Portfolio Management, 7<sup>th</sup> edition, CENGAGE Learning, Delhi, 2007.
2. Fischer, E. Donald and Ronald, J. Jordan (2011). Security Analysis and Portfolio Management, 6/e; New Delhi: Pearson Education.

**REFERENCES**

1. Punithavathy Pandian, Security Analysis and Portfolio Management, 2<sup>nd</sup> edition, Vikas Publishing House Pvt., Ltd., 2001.
2. Chandra, Prasanna (2012). Investment Analysis and Portfolio Management, 4/e: New Delhi: McGraw Hill Education
3. Ranganathan, M and Madhmathi, R (2012). Security Analysis and Portfolio Management, 2/e; New Delhi: Pearson Education

<b>MBA18R5266</b>	<b>FINANCIAL INCLUSION</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite :</b> MBA18R5104-Pinciples of Banking and Insurance					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way. Financial access facilitates day-to-day living, and helps families and businesses plan for everything from long-term goals to unexpected emergencies. As accountholders, people are more likely to use other financial services, such as credit and insurance, to start and expand businesses, invest in education or health, manage risk, and weather financial shocks, which can improve the overall quality of their lives.

**Course Outcome(s):**

After completing this course, the student will be able to:

<b>CO1</b>	:	Explain basic concepts of financial inclusion
<b>CO2</b>	:	Describe role micro finance in financial inclusion
<b>CO3</b>	:	Discuss financial inclusion strategies to strengthen financial status of a country
<b>CO4</b>	:	Describe RBI regulations pertaining with financial inclusions
<b>CO5</b>	:	Discuss recent trends in financial inclusion.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	M			S							
<b>CO2</b>	L	S			M							
<b>CO3</b>					S							
<b>CO4</b>		M										
<b>CO5</b>		L			L	S						

**UNIT-I BASIC CONCEPTS OF FINANCIAL INCLUSION**

**09 Hours**

Definition – Importance - Role of Financial Inclusion towards inclusive growth - Role of Financial institutions in financial inclusion – Institutional structure and mechanisms - Challenges of Inclusive banking.

**UNIT-II ROLE MICRO FINANCE IN FINANCIAL INCLUSION**

**09 Hours**

Micro credit - Micro insurance scheme - Business Facilitators and Business Correspondents in rural financing- SHGs/NGOs - linkages with banking.

**UNIT-III FINANCIAL INCLUSION STRATEGIES**

**09 Hours**

Initiatives for inclusion - Lead banking scheme (LBS) - No frills account - BSBD Accounts - Business Correspondents (BC) system - Swabhiman Campaign – PMJDY – Technologies Role in Delivering Accessible Financial Services to the Poor.

#### **UNIT-IV RBI REGULATIONS**

**09 Hours**

Priority sector lending - Open accounts for Self Help Groups - Relaxation on Know Your Customer(KYC) Norms – Opening branches in unbanked rural areas – Licensing new banks - non- banking entities involved in financial inclusion.

#### **UNIT-V RECENT TRENDS IN FINANCIAL INCLUSION**

**09 Hours**

Financial Inclusion for Sustainable Development - Role of IT and Intermediaries Financial Inclusion - An Economic Growth Driver Financial Services - Trends and Recent Innovations.

#### **TEXT BOOK**

1. Financial Inclusion in India: Policies and Programmes , N. Mani, New Century Publications, 2015.
2. Marketing Techniques for Financial Inclusion and Development by Jain, Dhiraj, Sharma, Adya, IGI Global, 2018

#### **REFERENCE BOOKS**

1. Talking Financial Inclusion in Liberalised India, M. S. Sriram, Roudledge Publications – 2017
2. Financial Inclusion in India, By DR.S.V. Shinde, Laxmi Book Publication, 2015.
3. Uppal RK &Pooja, Transformation in Indian Banks-Search for better tomorrow, Sarup Book Publisher Private Ltd., New Delhi, 2014

<b>MBA18R5269</b>	<b>INTERNATIONAL BANKING: LEGAL AND REGULATORY ASPECTS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisite :</b> MBA18R5104-Pinciples of Banking and Insurance					
<b>Course Category:</b> Elective			<b>Course Type:</b> Theory		

**Course Objective(s):**

Legal & Regulatory Aspects of banking deals with related legal and regulatory aspects that has a bearing on Banking Operations and are woven in to the units/chapters to make their relevance easily understandable. Banking and Business laws in so far as they relate to day to day banking operations will also be covered at appropriate places. Case laws will be included, wherever appropriate.

**Course Outcome(s):**

After completing this course, the student will be able to:

<b>CO1</b>	:	The legal & regulatory framework of the international banking system
<b>CO2</b>	:	The various laws and enactments affecting day to day Banking operations Internationally
<b>CO3</b>	:	Demonstrate advanced knowledge of the theories and origins of financial services regulation.
<b>CO4</b>	:	Evaluate key policy debates surrounding future development of international and domestic financial services regulation and enforcement.
<b>CO5</b>	:	Apply acquired legal knowledge in solving practical problem cases.

**Mapping of Course Outcome(s):**

<b>CO / PO</b>	<b>PO</b>											
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>CO1</b>	S	S				L						
<b>CO2</b>		S	M			M						
<b>CO3</b>			S				L	M				
<b>CO4</b>			M	M				S				
<b>CO5</b>						S						

**UNIT-I: REGULATION OF INTERNATIONAL BANKING**

**09 Hours**

Regulation, Deregulation, Reregulation's \$ Regulatory Dialectic-Regulatory Arbitrage-Regulatory Capture-Basle Concordat-Capital Adequacy Ratios-Loan Los Provisioning

**UNIT-II: CONFLICT OF LAWS**

**09 Hours**

The importance of the choice of laws-Factors influencing choice of laws-Express choice of law-The proper law concept-Market practice in relation to choice of law clauses-The importance of "conflict" principles to international lending

**UNIT-III: JURISDICTION**

**09 Hours**

Express choice of forum clauses-Basis of Jurisdiction: express submission to jurisdiction-Connections between either the plaintiff or the defendant and jurisdiction-

Transaction connections-Locations of assets connection-The doctrine of forum non-convenience-Jurisdiction of the English Courts-in particular over registered companies.

**UNIT-IV: EXCHANGE CONTROLS**

**09 Hours**

Introduction of Exchange Control regulation-Common exchange control clauses found in International loan agreements, Market practices in relation to exchange controls.

**UNIT-V: COUNTRY RISK**

**09 Hours**

Assessment of country/sovereign risk-Developed and developing countries and their particular risk features-Legal and practical problems associated with country lending-Sovereign immunity, political disturbance, state succession. International Debt Crisis-Origin-Size-Causation, International measures combat the problem-Re-scheduling, New Money, Debt-Equity Swaps, IMF Conditionality and SAP, Baker Plan, Brady Plan. Mexical Peso Crisis 1994 and after-IMF and World Bank move on debt initiative.

**TEXT BOOKS**

1. International Banking Legal & Regulatory Aspects by IIBF - Macmillan Publishers India, 2013.
2. Law and Practice of Banking by P. N. Varshney and GopalSwaroop, Himalayas Publication, 2015

**REFERENCE BOOKS**

1. The Law and Practice of International Banking by Charles Proctor – Oxford, 19 August 2010.
2. The Foundations and Future of Financial Regulation, MadsAndenas, Iris H-Y Chiu, Roudledge Publication, 2013
3. The Law Relating to International Banking by Andrew Haynes - Bloomsbury Professional, 2010.