



BANGALORE UNIVERSITY
Jnanabharathi, Bengaluru- 560056

(According to NEP - 2020 Regulations)
Syllabus of 3rd and 4th Semester
Bachelor of Commerce (Insurance & Actuarial)

2021-22 Onwards

DEPARTMENT OF COMMERCE
Jnanabharathi Campus, Bangalore University, Bengaluru- 560056
www.bangaloreuniversity.ac.in

B. Com (Insurance & Actuarial) Programme Structure

SEMESTER III

Sl No.	Course Code	Title of the Course	Category of courses	Teaching hours per week (L+T+P)	SEE	CIE	Total Marks	Credits
1	Lang.3.1	Language - I	AECC	3+1+0	60	40	100	3
2	Lang.3.2	Language - II	AECC	3+1+0	60	40	100	3
3	B.Com. (IA) 3.1	Corporate Accounting	DSC	4+0+0	60	40	100	4
4	B.Com. (IA) 3.2	Statistics and Models	DSC	3+0+2	60	40	100	4
5	B.Com. (IA) 3.3	Ethical Aspects of insurance business	DSC	4+0+0	60	40	100	4
6	B.Com. 3.4	Constitution of India	AECC	2+0+0	30	20	50	2
7	B.Com. (IA) 3.5.1	Sports	SEC-VB	0+0+2	-	25	25	1
8	B.Com. (IA) 3.5.2	NCC/NSS/others (if any)	SEC-VB	0+0+2	-	25	25	1
9	B.Com. (IA) 3.6	Medical Insurance	OEC	3+0+0	60	40	100	3
Sub - Total (C)					390	310	700	25

SEMESTER IV

Sl No.	Course Code	Title of the Course	Category of courses	Teaching hours per week (L+T+P)	SEE	CIE	Total Marks	Credits
1	Lang.4.1	Language - I	AECC	3+1+0	60	40	100	3
2	Lang.4.2	Language - II	AECC	3+1+0	60	40	100	3
3	B.Com. (IA) 4.1	Advanced Corporate Accounting	DSC	4+0+0	60	40	100	4
4	B.Com. (IA) 4.2	Models and Audit trail	DSC	3+0+2	60	40	100	4
5	B.Com. (IA) 4.3	Short term Actuarial Mathematics	DSC	4+0+0	60	40	100	4
6	B.Com. 4.4	Artificial Intelligence	SEC	2+0+0	30	20	50	2
7	B.Com. (IA) 4.5.1	Sports	SEC-VB	0+0+2	-	25	25	1
8	B.Com. (IA) 4.5.2	NCC/NSS/others (if any)	SEC-VB	0+0+2	-	25	25	1
9	B.Com. (IA) 4.6	Travel Insurance	OEC	3+0+0	60	40	100	3
Sub - Total (C)					390	310	700	25

Notes:

- One Hour of Lecture is equal to 1 Credit.
- One Hour of Tutorial is equal to 1 Credit (Except Languages).
- Two Hours of Practical is equal to 1 Credit

Acronyms Expanded

AECC	: Ability Enhancement Compulsory Course
DSC ©	: Discipline Specific Core (Course)
SEC-SB/VB	: Skill Enhancement Course-Skill Based/Value Based
OEC	: Open Elective Course
DSE	: Discipline Specific Elective
SEE	: Semester End Examination
Ø CIE	: Continuous Internal Evaluation
Ø L+T+P	: Lecture+Tutorial+Practical(s)

Note: Practical Classes may be conducted in the Business Lab or in Computer Lab or in Class room depending on the requirement. One batch of students should not exceed half (i.e., 50 or less than 50 students) of the number of students in each class/section. 2 Hours of Practical Class is equal to 1 Hour of Teaching, however, whenever it is conducted for the entire class (i.e., more than 50 students) 2 Hours of Practical Class is equal to 2 Hours of Teaching

Name of the Programme: Bachelor of Commerce (Insurance & Actuarial)

Course Code: B.Com (IA) 3.1 (DSC)

Name of the Course: Corporate Accounting

Course Credits	No. of Hours per week	Total No. of Teaching Hours
4 Credits	4 Hrs	56 Hrs
Pedagogy: Classroom lecture, Tutorials, Group discussion, Seminar, Case studies, Fieldwork etc.,		
Course outcomes: On successful completion of the course, the Students will be able to		
<ul style="list-style-type: none">● Understand the treatment of underwriting of shares.● Understand the concepts and accounting treatment of Issue of shares under various types.● Know the valuation of intangible assets.● Know the valuation of shares.● Prepare the financial statements of companies as per companies act, 2013.		
Syllabus		
Module No. 1: UNDERWRITING OF SHARES (08 Hrs)		
Meaning – Underwriting Commission – Underwriter – functions - Advantages of Underwriting, Types of Underwriting – Marked and Unmarked Applications – Problems (Excluding Journal entries).		

Module No. 2: : PROFIT PRIOR TO INCORPORATION (12 Hrs)

Meaning – calculation of sales ratio – time ratio – weighted ratio – treatment of capital and revenue expenditure – Ascertainment of pre-incorporation and post-incorporation profits by preparing Profit and Loss Account and Balance Sheet.

Module No. 3: VALUATION OF GOODWILL (08 Hrs)

Meaning – Circumstances of Valuation of Goodwill – Factors influencing the value of Goodwill – Methods of Valuation of Goodwill: Average Profit Method, Super Profit Method, Capitalization of average Profit Method, Capitalization of Super Profit Method, and Annuity Method - Problems.

Module No. 4: VALUATION OF SHARES (08Hrs)

Meaning – Need for Valuation – Factors Affecting Valuation – Methods of Valuation: Intrinsic Value Method, Yield Method, Earning Capacity Method, Fair Value of shares. Rights Issue and Valuation of Rights Issue - Problems

Module No. 5: COMPANY FINAL ACCOUNTS (20 Hrs)

Digital Transformation of Accounting-Big Data Analytics in Accounting- Accounting through Cloud Computing - Green Accounting - Human Resource Accounting - Inflation Accounting - Database Accounting (Concepts only).

Skill Developments Activities:

- **Collect and fill the share application form of a limited Company.**
- **Collect Prospectus of a company and identify its salient features.**
- **Collect the annual report of a Company and List out its assets and Liabilities.**
- **Collection of latest final accounts of a company and find out the intrinsic value of shares**
- **Collect the annual reports of company and calculate the value of goodwill under different methods**

Name of the Programme: Bachelor of Commerce (Insurance & Actuarial)

Course Code: B.Com (IA) 3.2 DSC

Name of the Course: Statistics and Models

Course Credits	No. of Hours per week	Total No. of Teaching Hours
4 Credits	4 Hrs	56 Hrs
Pedagogy: Classroom lecture, Tutorials, Group discussion, Seminar, Case studies, Fieldwork etc.,		
Course outcomes: On successful completion of the course, the Students will be able to <ul style="list-style-type: none">● Understand the various aspects of discrete and continuous distribution.● Understand the concepts of independence, random variable and conditional distributions.● Understand the central limit theorem.● Understand the methods of estimation.● Understand the confidence intervals for unknown parameters.		
Syllabus		

Module No. 1: DISCRETE AND CONTINUOUS DISTRIBUTION: 10 Hrs

Definition and application of discrete distributions, geometric, binomial, negative binomial, Poisson and uniform of discrete distribution; Features of principal discrete and continuous distribution; Definition and application of the continuous distribution, normal, log normal, exponential, gamma, chi square, beta and uniform Moment generating function: (MGF) Moment generating function, cumulant generating function; simple cases of cumulants, and their uses to evaluate moments; Determination of moment generating function of random variable; Determination of cumulant moment generating function and the cumulants for random variable; Using the above variables, by expansion as a series or by differentiation as appropriate; Uses and application of the above function; Reasons for using the functions;

Module No. 2: THE CONCEPTS OF INDEPENDENCE, RANDOM VARIABLE AND CONDITIONAL DISTRIBUTIONS: 10 HRS

The use of generating functions to establish the distribution of linear combinations of independent random variables; Ascertain marginal distributions and conditional distributions from jointly distributed random variables; Definition of the probability function/density function of a marginal distribution and of a conditional distribution; Conditions under which random variables are independent; Calculation of the mean and variance of a function of two jointly distributed random variable, and the covariance and correlation coefficient between two variables; Determination of the probability function/density function of a function of independent random variables, using MGFs; Mean and variance of linear function of independent random variables;

Module No. 3: THE CENTRAL LIMIT THEOREM (12 Hrs)

The concepts of random sampling, statistical inference and sampling distribution; the central limit theorem for a sequence of independent, identically distributed random variables; Application of the central limit theorem to establish normal approximations to other distributions, and to calculate probabilities; a continuity correction when using a normal approximation to a discrete distribution; Application of a continuity correction when using a normal approximation to a discrete distribution; Meaning of sample, a population and statistical inference; Definition of random sample from a distribution of a random variable; meaning of a statistic and its sampling distribution; Determination of the mean and variance of a sample mean and the mean of a sample variance in terms of the population mean, variance and sample size; Use of the basic sampling distributions for: - the sample mean where the population variance is know -the sample mean where the population variance is unknown - the sample variance for random samples from a population that follows a normal distribution

Module No. 4: METHODS OF ESTIMATION: 12 Hrs

The main properties of estimators, and their application, the method of moments for constructing estimators of population parameters; Application of the method of moments for constructing estimators of population parameters; The method of maximum likelihood for constructing estimators of population parameters for exact data samples; Application of the method of maximum likelihood for constructing estimators of population parameters for exact data samples; Definition of the terms: efficiency, bias, consistency and mean squared error; Calculation of the bias and mean square error of an estimator and its use to compare estimators

Module No. 5: CONFIDENCE INTERVALS FOR UNKNOWN PARAMETERS 12 Hrs

Definition of a confidence interval for an unknown parameter of a distribution based on a random sample; Calculation of a confidence interval for an unknown parameter using a given sampling distribution for example the mean and variance of a normal distribution; Calculation of confidence intervals for a binomial probability and a Poisson mean, using the normal approximation in both cases; Calculation of confidence intervals for two-sample situations involving either the normal distribution, or the normal approximation to the binomial and Poisson distributions Testing hypotheses: Meaning of the terms null and alternative hypotheses, simple and composite hypotheses, critical region, level of significance and probability-value of a test; Application of basic tests for the one-sample and two-sample situations involving the normal, binomial and Poisson distributions; Application of basic test for paired data, Test to test the random sample from a hypothesis including cases where parameters are unknown

Skill Developments Activities:

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Reference Books:

- **General Insurance Financial Reporting Topics, Fourth Edition ,Society of Actuaries. 2019.**
- **Dun & Bradstreet: Financial Risk Management, Tata McGraw-Hill Publication.**
- **R K Arora Financial Risk Management, Wiley**
- **Kotreshwar, G: Risk Management- Insurance and Derivatives, Himalaya Publishing House**
- **Trieshmann, Gustavson & Hoyt: Risk management & Insurance, Thomson Learning Inc**
- **Crouhy M. Dan Galai and Robert P. Mark: Risk Management, McGraw-hill Co.**
- **Paul Hopkin, Fundamentals of Risk Management**
- **George E Rejda and Michael McNamara,Principles of Risk Management & Insurance**

- **John C. Hull, Risk Management & Financial Institutions**
- **Insurance Institute of India**
- **National Insurance Academy**

Note: Latest edition of textbooks and reference Books may be used

Name of the Program: B. Com Insurance & Actuarial (Basic/Hons)

Course Code:

Name of the Course: B.Com (IA) 3.2 DSC

Ethical insurance in Insurance business

Course Credits	No. of Hours per week	Total No. of Teaching Hours
4 Credits	3 Hrs	56 Hrs
Pedagogy: Classroom lecture, tutorials, Group discussion, Seminar, Case studies, fieldwork etc.,		
Course Outcomes: On successful completion of the course, the Students will be able to <ul style="list-style-type: none">• Create an understanding of the concepts of ethics and governance• To impart knowledge and skills of ethical decision making with reference to Indian ethos• Familiarise with the implementation of corporate governance systems		
Syllabus		
Module No. 1: Introduction to Medical Insurance: (10 hours) Definition- Meaning, Nature of Ethics, Meaning of Moral & Ethics. Types of Ethics, Importance of Ethics in Business, Areas of Business Ethics, Meaning of Functional Ethics, Types of Ethics According to Functions of Business- Marketing Ethics.		
Module No. 2: Ethical Decision Making: 12 hours Decision Making (Normal Dilemmas And Problems): Ethical reasoning and philosophies (Golden rule, Hedonism, Utilitarianism, distributive justice - Universalism Vs relativism) Importance and Relevance of Trusteeship, Principle in Insurance Business, Ethics in Advertising- (Truth in Advertising), Ethical Issues in Finance. Ethical framework for decision making- Steps in ethical decision making process.		
Module No. 3- Introduction to corporate Governance in Insurance Business: 12 hours Meaning of corporate Governance-Corporate Governance in Insurance Companies-IRDAI as regulator for Insurance business, organisation structure, Audit report- Fair and Unfair Business Practices. Theoretical Basis of Corporate Governance, Mechanism- Corporate Governance Systems, Indian Model of Governance, Good Corporate Governance, Obligations Towards Society and Stake holders. Theories underlying Corporate Governance (Stake holder's theory and Stewardship theory, Agency theory, Separation of Ownership and Control, Corporate Governance Mechanism: Process, Indian Model, and Emphasis on Corporate Governance, (Transparency Accountability and Empowerment).		
Module No. 4: Ethics and external stakeholders -12 hours Ethics in marketing and consumer protection – Protection of Interest of Customer and Investors, Historical perspective of Corporate Governance and Issues in Corporate Governance. Ethics in financial practices and stakeholder protection- Ethics in environmental protection- Ethical issues relating to information-accuracy, Transparency, privacy, plagiarism, and defamation data protection Act , disclosure of information.		
Module No. 5: Global Scenario -12 hours Business Ethics in Global Economy. Ethics in the Context of Global Economy, Relationship Between Business Ethics & Business Development, Role of Business Ethics in Building a Civilized Society. Corporate Governance and Issues Related to Scams Corruption: Meaning, Causes and Effects. Frauds and Scams in Banks, Insurance Companies, Financial Institutions, Measures to Overcome Fraud and Corruption, Zero Tolerance of Corruption.		

Skill Developments Activities:

- Make a report related to regulatory aspect related to stake holders in insurance business

Reference Books:

- Bhatia, S.K., Business Ethics and Corporate Governance. Deep & Deep Publication Pvt. Ltd.
- Chakraborty, S.K., Management by Values, Oxford Univ. Press.
- Balasubramanian, R., Corporate Governance, IIM Bangalore.
- Laura P. Hartman, Perspectives in Business Ethics, Tata McGraw Hill.
- S.V.Muthry, Business Ethics-text & cases, Himalaya Publishing House
- BN Ghosh, Business Ethics and Corporate Governance, Tata McGraw Hill.

Name of the Program: B. Com Insurance & Actuarial (Basic/Hons)

Course Code:

Name of the Course:

Medical or Health Insurance

Course Credits	No. of Hours per week	Total No. of Teaching Hours
3 Credits	3 Hrs	42 Hrs
Pedagogy: Classroom lecture, tutorials, Group discussion, Seminar, Case studies, fieldwork etc.,		
Course Outcomes: On successful completion of the course, the Students will be able to <ul style="list-style-type: none">• Gain knowledge on Medical or Health Insurance policy• Understand the documentation of different types of Health Insurance Policy in India• To use the knowledge for the personal use or to take up the profession as advisor/consultant		
Syllabus		
Module No. 1 Model 1: Introduction to Medical Insurance: (10 hours) Introduction- Definition of Health - Types of health care - Factors affecting the health systems in India-Evolution of Health Insurance in India- Insurance Market – Intermediaries. Important Organisations- IRDAI, General and Life Insurance Councils, Insurance Information Bureau of India (IIB)		
Module No. 2: Insurance documentation and Process : (12 Hours) Proposal form - Acceptance of the proposal form (underwriting) prospectus, premium receipt, policy documents- health insurance products- Indemnity covers- Features of indemnity cover- pre and post hospitalisation expenses, domiciliary-exclusions- Coverage options- Individual- family floater- special features- sub-limits- co-payment-deductible-top up covers or deductible policy-senior citizen policy- fixed benefit covers- hospital cash -critical illness policy- Group Health Insurance Policies -cover of the policy.		
Module No. 3- Micro Insurance for poorer section and Overseas travel Insurance (12 Hours) <ul style="list-style-type: none">• Micro Insurance: Jan Arogya Bima policy- Universal Health Scheme- Rashtriya Swastha Bima Yojana - Pradhana Mantri Suraksha Bima Yojana- Pradhana mantri Jan Dhan Yojana - personal accident and disability cover• Overseas travel Insurance or International travel Insurance: Need - scope of coverage, Types of plans-provider of the Insurance policy- who can take the policy- sum insured-premium		
Module No. 4: Basic principles and Key terms used in health policies -10 hours Basic principles of Insurance- Underwriting process- medical and non- medical underwriting - Key terms used in Health Insurance- Network provider- cashless service-Third Party Administrator (TPA)- notice of claim- cumulative bonus-free health check-up- no claim discount-co-payment-deductibles/ excess-room rent restrictions-renewability- cancellation clause-free look-in period-grace period- under writing-risk assessment-regulators-providers /hospitals-agents-brokers/		

Skill Developments Activities:

- **Compare the different company's health insurance companies and make study report on feature, premium, age cover, inclusion and exclusion**
- **Male a study report on the Government sponsored health insurance schemes in India**

Reference Books:

- Miscellaneous Insurance- Shashi Publication
- General Insurance products- Insurance Institute of India
- Gopal Krishnan, Liability Insurance
- Aramvalarthan : Risk Management I.K. Intl
- Mishra M.N, Insurance Principles and Practice
- P. K Gupta; Insurance & Risk Management
- Insurance Institute of India- Agents examination -General Insurance-IC31
- Insurance Institute of India- IC78- professional examination
- www.irdai.gov.in
- www.insuranceinstituteofindia.com

Name of the Program: Bachelor of Commerce (Insurance & Actuarial)

Course Code: B.Com. 4.1

Name of the Course: Advanced Corporate Accounting

Course Credits	No. of Hours perWeek	Total No. of Teaching Hours
4 Credits	3+0+2 Hrs	56 Hrs

Pedagogy: Classroom lectures, Case studies, Group discussion & Seminar etc.,

Course Outcomes: On successful completion of the course, the Students will be able to

- Know the procedure of redemption of preference shares.
- Comprehend the different methods of Mergers and Acquisition of Companies
- Understand the process of internal reconstruction.
- Prepare the liquidators final statement of accounts.
- Understand the recent developments in accounting and accounting standards.

Syllabus

Module No. 1: REDEMPTION OF PREFERENCE SHARES (10 Hrs)

Introduction, Meaning, legal provisions, treatment of premium on redemption – creation of Capital Redemption Reserve – Fresh issue of shares – Arranging for cash balance for the purpose of redemption – minimum number of shares to be issued for redemption. Issue of bonus shares – Problems on Journal Entries and preparation of Balance sheet after redemption. (in accordance with Schedule III to Companies Act 2013)

Module No. 2: MERGERS AND ACQUISITION OF COMPANIES (16 Hrs)

Meaning of Amalgamation and Acquisition – Types of Amalgamation – Amalgamation in the nature of Merger – Amalgamation in the nature of Purchase – Meaning and Methods of Purchase Consideration (Ind AS -103) - Net asset Method - Net Payment Method, Accounting for Amalgamation (Problems on pooling of interest method and purchase method) – Journal Entries and Ledger Accounts in the Books of Transferor Company. Journal Entries and Balance Sheet in the books of Transferee Company.

Module No. 3: INTERNAL RECONSTRUCTION OF COMPANIES (10 Hrs)

Introduction, Meaning and Need for Internal Reconstruction, Types and Objectives of Capital Reduction, Legal Provisions for Reduction of Share Capital under Companies Act, 2013.

Accounting for Capital Reduction- Problems on Journal Entries, preparation of Capital Reduction Account and Reconstructed Balance sheet.

Module No. 4: LIQUIDATION OF COMPANIES (12 Hrs)

Meaning of Liquidation, Meaning and Functions of **Liquidator**, Modes of Winding up, Order of payments. Liquidator's remuneration. Problems in preparation of Liquidator's Final Statement of Account.

Module No. 5: EMERGING TRENDS IN ACCOUNTING (08 Hrs)

Human Resource Accounting, Inflation Accounting, Investment Accounting, Automated accounting process, Cloud based accounting, Data analytics and forecasting tools, Rise of accounting software solutions, Blockchain, Forensic Accountancy, Advisory Services, Artificial Intelligence in Accounting, Big Data in Accounting, Remote Work Setting, Outsourcing of Accounting of Functions, Changing financial standards, Workplace wellness accounting, etc (concepts only)

Text Books:

- Arulanandam & Raman ; Corporate Accounting-II, HPH
- Anil Kumar.S Rajesh Kumar.V and Mariyappa .B Advanced CorporateAccounting, HPH
- Dr. Venkataraman. R – Advanced Corporate Accounting
- S.N. Maheswari , Financial Accounting, Vikas publishing
- Soundarajan A & K. Venkataramana, Advanced Corporate Accounting, SHBP.
- RL Gupta, Advanced Accountancy, Sultan Chand
- K.K Verma – Corporate Accounting.
- Jain and Narang, Corporate Accounting.
- Tulsian, Advanced Accounting,
- Shukla and Grewal – Advanced Accountancy, Sultan Chand
- Srinivas Putty, Advanced Corporate Accounting, HPH.

Note: Latest edition of textbooks may be used.

Name of the Programme: Bachelor of Commerce (Insurance & Actuarial)

Course Code: B.Com (IA) .4.2 DSC

Name of the Course: MODELS AND AUDIT TRAILS

Course Credits	No. of Hours per week	Total No. of Teaching Hours
4 Credits	4 Hrs	56 Hrs
Pedagogy: Classroom lecture, Tutorials, Group discussion, Seminar, Case studies, Fieldwork etc.,		
Course outcomes: On successful completion of the course, the Students will be able to <ul style="list-style-type: none">• Understand the various aspects of RUIN.• Understand the adjustment coefficient• Understand the techniques for analyzing a run-off (or delay).• Understand the development of spreadsheet model.• Understand the		
Syllabus		
Module No 1: RUIN 10 Hrs <p>Meaning of the aggregate claim process and the surplus process for a risk, Calculation of probabilities of the number of events in a given time Interval and waiting times using the Poisson process and the distribution of inter-event times to probabilities, Calculation by using the Poisson process and distribution of inter-event times, probabilities involving waiting times and the number of events in a given time interval.</p>		

Module No. 2: ADJUSTMENT COEFFICIENT 14 Hrs

Definition and calculation of the adjustment coefficient for a compound Poisson process in simple cases, Definition of the probability of ruin in infinite/finite and continuous/discrete time, Relationships between the different probabilities of ruin, Lundberg's inequality, The significance of the adjustment coefficient in Lundberg's inequality, The effect on the probability of ruin, in both finite and infinite time, of changing parameter values, The effect on the adjustment coefficient and on the probability of ruin of simple reinsurance arrangements

Module No. 3: TECHNIQUES FOR ANALYZING A RUN-OFF (OR DELAY) 16 Hrs

Techniques for analysing a run-off (or delay) triangle and projecting the ultimate position, Use of a statistical model to underpin a run-off triangles approach, Definition of a development factor, Use of a set of assumed development factors to project the future development of a run-off triangle, Application of the basic chain ladder method for completing the run-off triangle, Adjustment of the basic chain ladder method to make explicit allowance for inflation, Alternative ways for deriving development factors appropriate for completing the run-off triangle, Application of average cost per claim method for estimating outstanding claim amounts, Application of the Bornhuetter-Ferguson methods for estimating outstanding claim amounts, The assumptions underlying the chain ladder, average cost per claim

Module No. 4: DEVELOPMENT OF SPREADSHEET MODEL 16 Hrs

Development of a spreadsheet model to solve a specified problem; summarizing data using appropriate descriptive statistics and graphical representation, Performing checks on the data and results, Production of an audit trail, documenting: the parameters given in the scenario, the methods used in the model, checks made on the data and results

Module No. 5:

**Skill Developments
Activities:**

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Reference Books:

Note: Latest edition of textbooks and reference Books may be used

Name of the Programme: Bachelor of Commerce (Insurance & Actuarial)

Course Code: B.Com (IA) 4.3 DSC

Name of the Course: Short Term Actuarial Mathematics

Course Credits	No. of Hours per week	Total No. of Teaching Hours
4 Credits	4 Hrs	56 Hrs

Pedagogy: Classroom lecture, Tutorials, Group discussion, Seminar, Case studies, Fieldwork etc.,

Course outcomes: On successful completion of the course, the Students will be able to

- Know the techniques of discounting emerging costs
- Comprehend the the forms of heterogeneity
- Understand the probabilities and moments of loss distribution.
- Prepare the risk models
- Understand and Derive formulae for the moment generating functions and moments of aggregate claims

Syllabus

Module No. 1: TECHNIQUES OF DISCOUNTING EMERGING COSTS 8 Hrs

Techniques of discounting emerging costs for use in pricing, reserving, and assessing profitability, Features of a unit-linked contract, Evaluation of expected cash flows for whole life, endowment and term assurances, annuities, and unit-linked contracts, Application of a profit test to simple annual premium contracts to determine the profit vector, the net present value, and the profit margin, Method of using the profit test to price a product, and to determine non-unit reserves for unit-linked contracts.

Module No. 2: THE FORMS OF HETEROGENEITY 14 Hrs

The principal forms of heterogeneity within a population and the ways in which selection can occur; the factors that contribute to the variation in mortality and morbidity, (specifically: Occupation, Nutrition, Housing, Climate/ Geography, Education, Genetics;) Definition of the following forms of selection: Temporary initial selection, Class selection, Time selection, Spurious selection, Adverse selection, How selection can be expected to occur amongst individuals taking out each of the main types of life insurance contracts, or amongst members of large pension schemes, How decrements can have a selective effect, The necessity of different mortality tables for different classes of lives, The theoretical basis of the use of risk classification in life insurance, The impact of the availability of genetic information on risk classification in life insurance, The concept of a single figure index and its advantages and disadvantages for summarizing and comparing actual experience, Definition, and illustration for the use of the terms: crude mortality rate, directly standardized and indirectly standardized mortality rate, standardized mortality ratio.

Module No. 3: PROBABILITIES AND MOMENTS OF LOSS DISTRIBUTION 14 Hrs

Probabilities and Moments of loss distribution both with and without limits and risk-sharing arrangements, The properties of the statistical distributions which are suitable for modelling individual and aggregate losses, Estimation of the parameters of a failure time or loss distribution when the data is complete, or when it is incomplete, using maximum likelihood and the method of moments, Application of the principles of statistical inference to select suitable loss distributions for sets of claims Definition of moments and moment generating functions of loss distributions including the gamma, exponential, Pareto, generalised Pareto, normal, lognormal and Weibull distributions, The concepts of excesses (deductibles), and retention limits, The operation of simple forms of **proportional and excess of loss reinsurance**, The impact of the availability of genetic information on risk classification in life insurance

Module No. 4: RISK MODELS 10 Hrs

Risk models involving frequency and severity distributions, Determination of models appropriate for short term insurance contracts in terms of the numbers of claims and the amounts of individual claims, The major simplifying assumptions underlying the models, Deriving the moment generating function of the sum of N independent random variables; in particular when N has a binomial, Poisson, geometric or negative binomial distribution, Definition of a compound Poisson distribution and apply the fact that the sum of independent random variables each having a compound Poisson distribution also has a compound Poisson distribution, Calculation of the mean and variance for compound binomial, compound Poisson and compound negative binomial random variables and derive the coefficient of skewness for the compound Poisson case and make a comment on the sign of the skewness in the other case,

Module No. 5: Derive formulae for the moment generating functions and moments of aggregate claims 10 Hrs

Derive formulae for the moment generating functions and moments of aggregate claims over a given time period for the models in terms of the corresponding functions for the distributions of claim numbers and claim amounts, stating the mathematical assumptions underlying these formulae, Calculation of the mean and variance for compound binomial, compound Poisson and compound negative binomial random variables for both the insurer and the reinsurer after the operation of simple forms of proportional and excess of loss reinsurance and derive the coefficient of skewness for the compound Poisson case and make a comment on the sign of the skewness in the other case.

Skill Developments Activities:

Write Techniques of discounting emerging costs for use in pricing,
List The impact of the availability of genetic information on risk classification in life insurance
Show Derive formulae for the moment generating functions and moments of aggregate claims

Reference Books:**Understanding Actuarial Practice**

Stuart A. Klugman, Jeffrey A. Beckley, Patricia L. Scahill, Matthew C. Varitek and Toby A. White.

Actuarial Mathematics, Second Edition

Newton L. Bowers Jr., Hans U. Gerber, James C. Hickman, Donald A. Jones and Cecil J. Nesbi

Name of the Program: B. Com Insurance & Actuarial (Basic/Hons)

Course Code: B.Com (IA) 4.7 OEC

Name of the Course: TRAVEL INSURANCE

Course Credits	No. of Hours per week	Total No. of Teaching Hours
3 Credits	3 Hrs	42 Hrs
Pedagogy: Classroom lecture, tutorials, Group discussion, Seminar, Case studies, fieldwork etc.,		
Course Outcomes: On successful completion of the course, the Students will be able to <ul style="list-style-type: none">• Gain knowledge on Travel Insurance policy• Gain knowledge the procedure to buy the travel Insurance for domestic and International use• Understand the documentation of different types of Travel Insurance Policy• To use the knowledge to develop professional skills to work in the insurance industry or take up the entrepreneurship as web aggregators, agents or consultant		
Syllabus		
Module No. 1: Introduction to Travel Insurance (10 Hours) Introduction- Meaning of travel- Definition - features – benefits - Types of travel insurance- domestic and International travel Insurance- benefits of buying travel insurance- personal and accident benefit- medical expenses- hospital benefit-emergency services- personal Liability -Travel Delay-Loss of deposit or cancellation of trip- curtailment of trip- claims procedure- limitations- handling of contingencies.		
Module No. 2: Domestic Travel Insurance (10 Hours) Domestic Travel Insurance- Meaning - definition- features- benefits - types -coverage in Domestic travel insurance- documentation procedure- Insured trip- best domestic travel insurance companies in India- coverage and Inclusion in Domestic travel insurance policy- exclusions in domestic travel insurance - when to buy the domestic travel insurance policy-claim procedure		
Module No. 3- International Travel Insurance (12 hours) Meaning – definition – features of International travel insurance- types of travel insurance plan- Schengen travel insurance- family travel insurance- advantages of international travel insurance- International insurance covers-exclusions- Where can Indians get visa on arrival-visa free countries for Indians-how to buy travel insurance- online or offline- advantages of buying online -covid-19 cover-things to consider for travelling and documents to be carried for International travel- baggage and personal effects- personal money- loss of travel documents- outbound travel alert- limitations		
Module No. 4: TRAVEL Health Insurance policy and student travel Insurance policy (10 Hours) A. Travel Health Insurance- Meaning-Key features - types - coverage of travel health insurance- additional coverage- travel health insurance companies- benefits and exclusions -claim procedure- B. Student travel Insurance- definition- key features- best student travel insurance plans in India- requirement of student of travel insurance- advantages of International student travel insurance- student health travel insurance- need- inclusions- exclusions and extension – claim process- cancellation of travel insurance policy.		

Skill Developments Activities:

- Visit travel insurance company and collect the information - make study report on process, documentation, new policies & Procedures in case of domestic and international travel insurance.
- Find out the details of the student travel insurance and Travel - how does it work-procedure for claim settlement and make a study report

Reference Books:

- Miscellaneous Insurance- Shashi Publication
- General Insurance products- Insurance Institute of India
- Gopal Krishnan, Liability Insurance
- Aramvalarthan : Risk Management I.K. Intl
- Mishra M.N, Insurance Principles and Practice
- P. K Gupta; Insurance & Risk Management
- Insurance Institute of India- Agents examination -General Insurance-IC31
- Insurance Institute of India- IC78- professional examination
- www.irdai.gov.in
- www.insuranceinstituteofindia.com