

TRIBHUVAN UNIVERSITY
INSTITUTE OF SCIENCE AND TECHNOLOGY
SCHOOL OF MATHEMATICAL SCIENCES
Bachelor in Mathematical Sciences (B.Math.Sc.)

Course of Study

Code No.: MSMN 401

Paper: **Risk Management and Insurance**

Nature: Theory

Full Marks: 75

Pass Marks: 30

Credit: 3

Course Description:

The course covers introduction to risk and insurance, Contractual Provisions and Legal Doctrines, Rate Making, Marketing, Underwriting and Claims, Financial Management of Insurance Companies.

Learning Objectives:

The objective of this course is to familiarize students with the concept and application of insurance and risk management. This course also aims to orient the student about insurance business mechanisms and practices in Nepal.

Mode of Delivery:

The course will be taught by lecture (48 hrs), and problem solving and class discussion (24 hrs). The use of spreadsheet software for problem solving will be encouraged.

Contents:

Unit 1 Introduction to Risk

10 hrs

Concept and Types of Risk, Risk and Hazards, Meaning and objective of Risk Management, Risk Management Functions, Risk Management Techniques: avoidance, loss prevention and control, loss retention and insurance, Risk Management Matrix, Risk Management Process, Loss Minimization Techniques, Firm Value Maximization and Cost of Risk; Individual Risk Management and Cost of Risk; Risk Management and Societal Welfare, Risk Management Practices in Nepal.

Unit 2 Risk Identification and Pooling Arrangements

5 hrs

Evaluating Frequency and Severity of Losses, Risk Reduction through Pooling, Independent Losses; Pooling Arrangements with Correlated Losses; Insurers as Managers of Risk Pooling Arrangements.

Unit 3 Insurability of Risk, Contractual Provisions and Legal Doctrines

4 hrs

Factors that Limit the Insurability of Risk; Contractual Provisions that Limit Coverage

Unit 4 Fundamentals Principles of Insurance

5 hrs

Principles of indemnity, Principles of insurable interest, Principles of subrogation

Principles of utmost good faith, Principles of proximate cause, Principles of risk mitigation, Principles of contribution.

Unit 5 Rate Making **4 hrs**

Approaches of insurance pricing, objectives of rate making, rate making in property and liability insurance, rate making in life insurance

Unit 6 Marketing **4 hrs**

Objectives of marketing, Life insurance marketing, property and liability insurance marketing, types of marketing

Unit 7 Underwriting and Claims **4 hrs**

Concept of Underwriting, Types of Underwriter, Responsibility of Underwriter, Basic Underwriting Principles, Life Insurance Underwriting, Non-Life Insurance Underwriting, Concept of Claim Management, Meaning of Claim Settlement, Process of Claim Settlement, Legal Provision on Claims Settlement in Nepal, Life Insurance Claim Settlement Procedure, Non-Life Insurance Claim Settlement Procedure

Unit 8 Management of Insurance Companies **5 hrs**

Concept of insurance management, types of insurance company, departmentalization and responsibility of departments, risk management in insurance company, managing human resources, managing

Unit 9 Financial Management of Insurance Companies **7 hrs**

Guidelines for preparation of Financial Statements, Structure of Financial Statements of Insurer, Revenue Accounts, Profit and Loss Accounts, Balance Sheet, Cash Flow Statements, Changes in Equity, Notes to Accounts, Accounting Policy, ALM in life and property and casualty insurance, management of insurance fund, investments directives.

References

1. Emmett, J. Vaughan and Therese, M. Vaughan, **Fundamentals of Risk Management**
2. Harrington, S. E., and Niehaus, G. R., **Risk Management and Insurance**, Tata McGraw-hill, New Delhi.
3. Rejda, G. E., **Risk Management and Insurance**, Pearson Education, New Delhi.
4. Dorfman, M. S., **Introduction to Risk Management and Insurance**, Pearson Education, New Delhi.
5. Ghimire, R., **Insurance: Theory and Practices, Buddha Publication**, Kathmandu.
