Central University of Himachal Pradesh

(Established under Central Universities Act 2009
PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA – 176215, HIMACHAL PRADESH

UNIVERSITY'S

COURSE OFFERING

Monsoon Semester
(July – December 2014)

For More Details: Log on to www.cuhimachal.ac.in

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School of Business & Management Studies

Courses offered in SBMS

School of Business & Management Studies

Name of the Programme of Study: MBA

Courses for Semester 1

Group A (ACCOUNTING & FINANCE) **Credits: 2**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1.	AFA 407	Accounting for Managerial Decisions	2	-	Dr. Mohinder Singh Dr. Ashish Nag Dr. Manpreet

Group B (Marketing & Supply Chain Mgt.) **Credits: 2**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1.	MSC 401	Marketing Management	2	-	Dr. Bhagwan Singh Dr. Sarvesh Kumar Mr. Chaman Lal

Group C (HRM & OB) **Credits: 2**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1.	HRM 401	Organizational Behaviour	2		Dr. Aditi Sharma Dr. Gitanjali Upadhya Dr. Bhawna Bhardwaj

Group D (EDM) **Credits: 2**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1.	EDM 401	Fundamentals of Entrepreneurship	2	-	Mr. Chaman Kashyap, Dr. Sanjeev Gupta

School Wide Courses **Credits: 4**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1.	MSO 401	Management Principles and Function	2	-	Dr. Bhawna Dr. Ashish Nag
2.	MSO 402	Legal Aspects of Business *	2	-	Dr. Mohinder Singh Dr. Ashish Nag Dr. Manpreet
3.	CSR 401	Human Values and Ethics	2	-	Dr. Gitanjali
4.	POM 402	Management of Innovation	2	-	Dr. Sarvesh Kumar

*** Compulsory Course**

Courses for Semester 3

Group A (ACCOUNTING & FINANCE) **Credits: 6**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1.	AFA 507	Working Capital Management	2	-	Dr. Manpreet
2.	AFA 512	Investment Analysis and Portfolio Management	2	-	Dr. Ashish Nag
3.	AFA 415	Stock Market Operations	2	-	Dr. Mohinder Singh
4.	AFA 529	Quantitative Finance	4	-	Dr. Sanjeev Gupta
5.	AFA 509	Management of Mutual Fund	2	-	Mr. M. AtiF

Group B (Marketing & Supply Chain Mgt.) **Credits: 6**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1.	MSC 507	Rural Marketing	2	-	Mr. Chaman Kashyap
2.	MSC 501	Social Marketing	2	-	Dr. Sarvesh Kumar
3.	MSC 402	Services Marketing	2	-	Dr. Bhagwan Singh
4.	MSC 512	International Marketing	2	-	Mr. Chaman Kashyap
5.	MSC 405	Integrated Marketing Communication	2	MSC 401, MSC 506	Dr. Bhagwan Singh
6.	MSC 408	Supply Chain Management	2	-	Dr. Sarvesh Kumar

Group C (HRM & OB) **Credits: 6**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1	HRM402	Management of Industrial Relations	2	NA	Dr. Aditi Sharma
2	HRM 503	Human Resource Development	2	NA	Dr. Bhawna Bhardwaj
3	HRM 508	Compensation Management	2	NA	Dr. Gitanjali
4	HRM 513	Labour Laws	2	NA	Dr. Aditi Sharma
5	HRM 410	Personality Development and Career Management	2	NA	Dr. Bhawna Bhardwaj

School Wide Courses **Credits: 10**

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1	MSO 506	Strategic Management*	4	NA	Dr. Sanjeev Gupta Dr. Sarvesh Kumar
2	MIB 411	International Business Environment	2	NA	Dr. Mohinder Singh
3	EDM 507	Managing Corporate Turnarounds	2	EDM 401	Dr. Sanjeev Gupta
4	MSO 507	On-the-job Training and Training Report*	4	NA	All Faculty

*** Compulsory Course**

University Wide Courses

S. No.	Course Code	Course Name	Credit	Pre-Requisite/ Co-Requisite	Name of faculty
1	MSC 401	Marketing Management	2	NA	Dr. Bhagwan Singh Dr. Sarvesh Kumar Mr. Chaman Lal
2	HRM 401	Organizational Behaviour	2	NA	Dr. Aditi Sharma Dr. Gitanjali Upadhya Dr. Bhawna Bhardwaj
3	EDM 401	Fundamentals of Entrepreneurship	2	NA	Dr. Sanjeev Gupta Mr. Chaman Kashyap
4	MSO 401	Management Principles and Function	2	NA	Dr. Bhawna Bhardwaj Dr. Ashish Nag Dr. Manpreet
5	AFA 502	Project Management	2	NA	Dr. Manpreet
6	MSO 402	Legal Aspects of Business	2	NA	Dr. Mohinder Singh Dr. Ashish Nag Dr. Manpreet
7	HRM410	Personality Development and Career Management	2	NA	Dr. Bhawna
8	MSC 507	Rural Marketing	2	NA	Mr. Chaman Kashyap
9	HRM 513	Labour Laws	2	NA	Dr. Aditi Sharma
10	AFA 539	Foreign Investment Scenario	2	NA	Dr. Sanjeev Gupta
11	AFA 436	Corporate Governance and Ethics	2	NA	Dr. Manpreet
12	MSC 405	Integrated Marketing Communication	2	NA	Dr. Bhagwan Singh
13	CSR 401	Human Values and Ethics	2	NA	Dr. Gitanjali Upadhya
14	MIB 411	International Business Environment	2	NA	Dr. Manpreet

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Course Code: AFA 512

Course Name: Investment Analysis and Portfolio Management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Help students in understanding Basic concepts of Portfolio Management and also to know about the various tools of Investment Analysis.
- Understand the various concepts of risk analysis and risk management.
- It is also aimed at helping student equip themselves with the various techniques used in Investment analysis and portfolio management.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Library Work Assignment: 5 marks
  - Subjective Assignment: 5 marks
  - Quizzes/Games/Puzzles: 5 marks
  - Case study : 5 marks
  - Live Projects: 5 marks

Course Contents:

UNIT - I: Introduction to Portfolio Management (3 Hours)

- What is portfolio Management ,Phases of Portfolio Management
- Securities Market, Securities Analysis, Portfolio Analysis, Portfolio Selection, Portfolio revision, Portfolio evaluation
- Evolution of Portfolio Management, Role of Portfolio management, Financial Derivatives

UNIT - II: Investment: Objectives and Risks (5 Hours)

- Meaning of Investment, Financial and economic meaning of Investment, Characteristics of investment
- Objectives of Investment, Investment Vs Speculation, Investment Vs Gambling, Types of Investors, Investment Avenues
- Securities Market, Stock Exchanges in India, Stock market Indices, Depository System and Listing of securities
- Risks of Investments: Business and Financial Risk, Elements of Risk, Systematic Risk, Unsystematic Risk, Security returns, Use of Beta, Picturing Risk and Return
- Measurement of risk

UNIT - III: Fundamental, Industry and Company Analysis (3 hours)

- Fundamental Analysis, EIC Framework, Economy Analysis
- Economic Forecasting and its techniques, Anticipatory surveys, Barometric or indicator Approach, Econometric Model Building, Opportunistic Model building
- Industry Analysis and Company Analysis

UNIT - IV: Technical Analysis and Bond Valuation (5 Hours)

- Bond returns, Coupon rate, Current yield, Spot interest rate, Yield to maturity, Yield to call
- Bond prices, Bond pricing Theorems, Bond Risks, Default risk, Interest rate risk, Bond duration
- Technical analysis concept, Basic Principles of technical Analysis, Technical Vs. Fundamental analysis
- Dow theory, Price charts, Trend and trend reversals, Chart patterns
- Elliot Wave Theory, Mathematical Indicators, Market Indicators

UNIT – V: Efficient Market Theory, Portfolio Analysis, Portfolio Selection, Portfolio Revision and Portfolio Evaluation (4 Hours)

- Efficient Market theory Efficient Market Hypothesis Vs Fundamental and Technical Analyses, Competitive Market Hypothesis
- Efficient Market Hypothesis Vs Fundamental and Technical Analyses, Competitive Market Hypothesis,
- Portfolio Analysis: Expected return of a Portfolio, Risk of a Portfolio, Reduction of portfolio risk through Diversification, Portfolio with more than two securities, Risk-return calculations of portfolios with more than two securities
- Markowitz Model, Portfolio Selection, Portfolio Revision, Portfolio Evaluation

Prescribed Text Books:

1. S.Kevin (2011). Security Analysis and Portfolio Management, First Edition, PHI Learning, New Delhi.
2. Donald E. Fischer and Ronald J. Jordan (2012). Security Analysis and Portfolio Management, Sixth Edition, Pearson, New Delhi.
3. K Sasidharan and Alex k Mathews (2012). Security Analysis and Portfolio Management, First Edition, Tata McGraw Hill, New Delhi.

Suggested Extra Readings:

1. M.Ranganatham and R. Madhumati (2012). Security Analysis and Portfolio Management, First Edition, Pearson, New Delhi.
2. Prasanna Chandra (2012). Investment Analysis and Portfolio Management, Third Edition, Tata McGraw Hill, New Delhi.
3. V.K. Bhalla (2011). Investment Management (Security Analysis and Portfolio Management), Seventeenth Edition, S. Chand, New Delhi.
4. V.A Avadhani (2011). Investment Analysis and Portfolio Management, First Edition, Himalaya Publishing House, New Delhi.
5. Suyash N Bhatt (2011). Security Analysis and Portfolio Management, First Edition, Wiley Publishing, New Delhi.

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Course Code: AFA 407

Course Name: Accounting For Managerial Decisions

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Define financial accounting, Accounting Rules, Accounting Process, Financial Statements and techniques used in financial analysis.
- Apply the tools of to perform horizontal and vertical analysis.
- Calculate and interpret various financial ratios.
- Demonstrate knowledge of, and ability to prepare, a statement of cash flows.
- Define managerial accounting and understand the techniques used in cost accounting.
- Compute break-even and cost-revenue analysis and understand how to interpret the results.
- Prepare various types of budgets.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - Attendance 5%
   - Quiz 5%
   - Case study 5%
   - Presentation and problem solving 10%

Course Contents

UNIT - I Introduction to Accounting and Management Accounting (4 Hours)

- Accounting, Book-keeping and Accounting, Users of Accounting, Basic Concepts and Conventions, Basic Books of Accounts, Subsidiary Books, Trial Balance, Components of Financial Statements, Format of Balance sheet, Accounting terminology
- Liabilities, Equity Shares, Share Capital and its types, Preference Share Capital, Reserves and Surplus, Secured loans, Equitable Mortgage, unsecured Loans, Current Liabilities and Provisions, Assets, Fixed Assets, Current Assets, Investments

UNIT - II Financial Statements (4 hours)

- Financial Statements: Meaning and type of financial statements;
- Limitations of financial statement;
- Objectives and methods of Financial Statement Analysis;
- Financial Statement Analysis (Balance Sheet Analysis, Income Statement Analysis, Trend Analysis)

  Activity: Annual report of a company to be analyzed

UNIT - III Ratio Analysis (4 hours)

- Ratio analysis;
- Classification of Ratios; Liquidity ratios, Profitability ratios, Solvency ratios, Balance sheet ratios
- Advantages and Limitations of Ratio Analysis.
- Analysis and Interpretation of different Ratios

UNIT - IV Cash flow and Marginal costing (6 hours)

- Cash flow statement; Relevant Accounting Standards
- Marginal costing and Profit planning - Managerial applications of Marginal Costing
- P/V ratio, Break Even point, Make or Buy decisions

UNIT - V Budgeting (2 hours)

- Budgeting for profit planning and control: Meaning of Budget and Budgetary control;
- Objectives; Merits and Limitations of Budgeting;
- Types of budgets fixed and flexible budgeting;
- Zero Base Budgeting,

Prescribed Text Books:

1. Maheswari S.N. (2004). Financial & Management Accounting. Sultan Chand & Sons Pvt. Ltd, New Delhi.
2. Bhattacharyya Debarshi, (2011). Management Accounting. Pearson Education.
3. Khan, Jain, (2010). Management Accounting: Text, Problems and Cases. Tata Mc Graw Hill Education Pvt. Limited, India.
4. Mathur Satish B. (2011). Accounting For Management. Tata Mc Graw Hill Education Pvt. Limited, India.

Suggested Extra Readings:

1. Hugh Coombs, Ellis Jenkins and David Hobbs, (2007).Management Accounting: Principles and Applications. Sage South Asia Edition.
2. Horngren, (2009). Introduction to Management Accounting. Pearson India.
3. Singhvi and Bodhanwala, (2007).Management Accounting- Text and Cases. PHI.
4. Anthony A. Atkinson, G. Arunkumar, Robert S. Kaplan, Ella Mae Matsumura, S. Mark Young, (2009). Management Accounting. Pearson Education.
5. Murthy and Gurusamy, (2009). Management Accounting. Tata Mc Graw Hill Education Pvt. Limited, India.
6. Arora M.N. (2009). Management Accounting Theory: Problem and Solutions. Himalaya Publishing House Pvt. Limited, India.
7. Kuppapally, (2011). Accounting for Managers. Eastern Economy Edition. PHI India.
8. Jiambalvo, (2011). Managerial Accounting. Wiley India.
9. Jawaharlal,(2011). Cost and Financial Analysis. Himalaya Publishing House Pvt. Limited, India.
10. Proctor Ray, (2010). Managerial Accounting For Business Decisions. Pearson India.
11. Gupta Ambrish, (2012). Financial Accounting for Management: An Analytical Perspective. Pearson India.
12. Ghosh T P.(2007). Accounting and Finance for Managers. Taxmann.

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Course Code: MSO 402

Course Name: Legal Aspects of Business

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: After completing this course the students will be able to:

- Understand the concepts of Agreement and Contract.
- Know the concepts of Sale of Goods Act 1930.
- Understand the basics of Company Law.
- Know about special contracts.
- Know about Partnership Act 1932.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
    - Subjective Assignment: 10%
    - Quizzes/Games/Puzzles: 5%
    - Case studies: 10%

Course Contents:

UNIT – I: THE INDIAN CONTRACT ACT 1872 (5 Hours)

- Law of Contract
- Nature of Contract
- Offer and acceptance
- Capacity of parties to contract

- Free consent
- Consideration

UNIT- II: SPECIAL CONTRACTS (3 Hours)

- Indemnity and Guarantee
- Bailment and Pledge
- Agency

UNIT-III: THE SALE OF GOODS ACT 1930 (3 hours)

- Sales contract
- Guarantees and Warranties in sales contract
- Performance of sales contracts

UNIT – IV: COMPANY LAW (6 hours)

- Major principles – Nature and types of companies
- Memorandum and Articles of Association
- Prospectus

UNIT – V: PARTNERSHIP ACT, 1932 (3 hours)

- Nature of Partnership
- Rights and Duties of Partners
- Types of Partners

Prescribed Text Books:

1. Sulphey, Basheer (2011). Laws for Business. Eastern Economy Edition. PHI. New Delhi.
2. Maheshwari & Maheshwari, (2009). Elements of Corporate Laws. Himalaya Publishing House Pvt. Limited, India.

Suggested Extra Readings:

1. Gogna P.P.S., (2008).Mercantile Law. 4th Edition. S. Chand & Co. Ltd., India.
2. Pathak Akhileshwar, (2010). Legal Aspects of Business. 4th Edition. Tata McGraw Hill.
3. Shukla M.C., (2007).Mercantile Law. First Edition. S. Chand & Company Ltd.
4. Kapoor N. D., (2009). Elements of mercantile Law. Latest Edition. Sultan Chand and Company, India.
5. Ramachandra K., Chandrashekara B., Kanakattee Chandrakant, (2010).Legal Aspects of Business Text and Cases.1st Edition. Himalya Publishing House Pvt. Limited, India.
6. Ramtirthkar R.R. (2009). Legal Aspects of Business. 2009 Edition. Himalaya Publishing House Pvt. Limited, India.
7. Kuchhal M C, (2010). Mercantile Law. Seventh Edition. Vikas Publishing House. New Delhi.
8. Bulchandani K.R, (2010). Business Law for Management. 6th Edition. Himalaya Publishing House Pvt. Limited, India.

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Course Code: CSR 401

Course Name: Human Values and Ethics

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

1. Understand the significance of human values and ethics in achieving excellence at personal and professional level.
2. Recognize, nurture and develop their inner and outer capacities enabling them to face the challenges of life with equanimity to ensure sustained happiness and prosperity which are the core aspirations of all human beings.
3. Apply values in their professional role as managers.

Attendance Requirement: Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

Mid Term Examination: 25%

- End Term Examination: 50%
- Continuous Internal Assessment :
    - Class Attendance - 10%
    - Class Presentation - 5%
    - Written Assignment - 5%
    - Class Participation - 5%

Course Contents:

UNIT I: Human Values and Ethics: An Introduction (5 Hours)

- Understanding Values: Definition and Concepts
- Formation of Values
- Types of Values
- Ethics, Types of Ethics
- Morality, Difference between Ethics and Morality
- Global Perspective: Hofstede's Six Values Model

UNIT - II: Human Valuesand Ethics:Management Concepts (4 Hours)

- Business ethics, Factors influencing Business Ethics
- Corporate Ethics: Corporate Governance
- Corporate Social Responsibility
- Ethical Dilemmas

UNIT III: Human Values and Ethics:Indian Philosophy (3 Hours)

- Dominant Indian Values
- Understanding Harmony in the Self
- Harmony in the Society
- Harmony in Nature and Harmony in Existence

UNIT IV: Human Values and Ethics: Propagated by Different Thinkers and Religions(6 Hours)

- Ethical values of Kant, Spinoza, Aristotle, Plato (Western Thinkers).
- Ethical views of Kautilya, Gandhi, Aurobindo (Integral Education), Tagore, Swami Vivekananda(Indian thinkers)
- Values Propagated By Different Religions - Hinduism, Islam, Christianity, Buddhism, Sikhism, Jainism

UNIT - V: Development of Human Values and Ethics (2 Hours)

- Self-Management
- Emotional Intelligence
- Spiritualityat workplace
- Spiritual Intelligence

Prescribed Text Books:

1. Gaur R.R., Sangal R., Bagaria G.P. (2010), Human Values and Professional Ethics, Excel Books, New Delhi.
2. Chakraborty S. K. and ChakrabortyDebangshu(2013), Human Values and Ethics: In search of Organisational Integrity, Himalaya Publishing House, Mumbai.
3. Murthy, C.S.V. (2012), Business Ethics: Text and Cases, Himalaya Publishing House, Mumbai.
4. Fernando, A.C. (2010), Business Ethics: An Indian Perspective, Pearson Education, New Delhi.

Suggested Additional Readings:

1. Ghosh, B. N.(2012), Business Ethics and Corporate Governance, Tata McGraw Hill Education Private Limited, New Delhi.
2. Balachandran S., Raja K.C.R., and Nair B.K. (2003), Ethics, Indian Ethos and Management, Second Edition, Shroff Publishers, Distributors Pvt. Ltd., Mumbai.
3. Mandal, S. K. (2011), Ethics in Business and Corporate Governance, Tata McGraw Hill Education Private Limited, New Delhi.
4. Banerjee, R.P. (2010).Ethics in Business Management: Concepts and Cases. First Edition.Himalaya Publishing House, Mumbai.
5. Bhatia S.K. (2001), Business Ethics and Managerial Values, First Edition, Deep and Deep Publications, New Delhi.
6. Sekhar R.C. (2002),Ethical Choices in Business, Second Edition, Response Books, New Delhi.
7. Chakraborty S.K. (2009), The Management and Ethics Omnibus, Eighth Edition, Oxford University Press, New Delhi.
8. MisraRajan (2009),Human Values, University Science Press, First Edition, Darya Ganj, New Delhi.
9. VermaYoginder (2007),Education in Human Values for Human Excellence, First Edition, Kanishika Publishers, New Delhi.

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Course Code: HRM 513

Course Name: Labour Laws

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

1. To make students of HR understand the significance of labor laws hold in an organization
2. To provide an insight into the various laws that govern workers and employees employment in an organization

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
    - Class Participation- 10%
    - Presentations - 10 %
    - Assignment- 05%

Course Contents:

UNIT I **4 Hours**

- The Trade Unions Act, 1926
- The Industrial Disputes Act, 1947

UNIT II: **5 Hours**

- The Industrial Employment (Standing Orders) Act, 1946
- Contract Labour (Regulation and Abolition) Act,1970
- Apprentices Act, 1961

UNIT III: **7 Hours**

- Maternity Benefit Act, 1961
- Equal Remuneration Act, 1976
- The Payment of Bonus Act, 1965
- Workmen's Compensation Act, 1923

UNIT IV: **6 Hours**

- Factories Act, 1948
- Mines Act, 1952
- Plantation Labour Act, 1951

UNIT V: **8 Hours**

- Child Labour (Prohibition and Regulation) Act, 1986
- The Employees State Insurance Act, 1948
- The Payment of Gratuity Act, 1972
- The Employees' Provident Funds & Miscellaneous provision Act, 1952

Text Books:

1. Sinha, P.R.N, Sinha, Indu Bala and Shekhar, S.P (2013). Industrial Relations, Trade Unions and Labour Legislation. Dorling Kindersley (India) Pvt. Ltd., New Delhi.

Additional Readings:

1. Mamoria, C.B., Mamoria, Satish and Gankar, S, V. (2010). Dynamics of Industrial Relations.

2. Kubendran, V. and Kodeeswari, K. (2011). Industrial Relations and Labour Law. Himalaya Publishing House Pvt. Ltd., Mumbai.

3. Srivastava, S C (2012). Industrial Relations And Labour Laws. Vikas Publishing House, Delhi.

4. Sarma , A.M (2013). Industrial Relations and Labour Laws. Himalaya Publishing House Pvt. Ltd., Mumbai.

5. H.L. Kumar (2013). Labour Laws - Everybody Should Know. Universal Law Publishing Co Pvt Ltd., Delhi.

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Course Code: MSO 401
Course Name: Management Principles and Functions
Credits Equivalent: 2
Course Objectives:
This Course is designed to:
1. Provide a basis of understanding of fundamental concepts of Management and its processes.
2. This course focuses on the basic roles, skills and functions of Management.
3. On completion of the syllabus the students will be able to understand the basic principles of Management, will acquaint themselves with Management process, functions and principles.
Attendance Requirements: Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
    - Class Participation- 10%
    - Presentation- 10%
    - Assignment-5%

Course Contents
UNIT I Introduction to Management and Development of Management Thought 7 Hours
- Managers and Management, Definition of management
- Nature of Management (Art or Science), Importance of management , Aspects of Management
- Functions of Management, Roles of a Manager, Managerial Skills
- The Pre Modern Era, Classical Contribution, Human Resource Approach, The Quantitative Approach

UNIT III Planning and Decision-Making 6 Hours
- Planning Defined, Features of Planning, Planning Process
- Types of Plans, Planning Premises and its types
- Management by Objectives-Process, Approaches to MBO, Advantages and Limitations of MBO
- Decision-Making- Decision making process, Types of Decisions, Models of Decision Making

UNIT III Organizing **6 Hours**

- Principles of Organizing, Line and Staff authority, Span of Management
- Types of Organizational Structure
- Departmentation, Authority and Power
- Delegation and Decentralization

UNIT IV Coordinating and Directing **4 Hours**

- Coordination- Types of coordination
- Distinction between Coordination and Cooperation
- Direction- Meaning, Nature and Principles of Direction
- Supervision

UNIT V Controlling **7 Hours**

- Controlling –Meaning of Control, Importance of control, Relationship between Planning and control
- Control process
- Types of Control, Control as a Feedback System
- Techniques of Control

Text Books:

1. Vasishth, Neeru (2009). Principles of Management. Taxmann Publications (P) Ltd., New Delhi.
2. Robbins, Stephen, Cenzo, David A., Bhattacharya, S. and Agarwal, Madhushree (2009). Fundamentals of Management: Essential Concepts and Applications, Dorling Kindersley (India) Pvt. Ltd., New Delhi.

Additional Readings:

1. Tripathi, P.C. and Reddy, P.N. (2008). Principles of Management.Tata McGraw Hill, New Delhi.
2. A.F., Stoner, R., Edward, F. and Daniel, R. G. (2001).Management. Prentice Hall of India, New Delhi.
3. Ashwathappa, K. and Ghuman, K. (2010). Management. Tata McGraw Hill, New Delhi.
4. Pettinger, R. (2007). Introduction to Management. Palgrave McMillan, New Delhi.
5. Weihrich, H. and Koontz, H. (2006). Essentials of Management. Tata McGraw-Hill, New Delhi.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: HRM 508
Course Name: Compensation Management
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)
Course Objectives: The course is designed to

- Discuss the strategic importance of compensation to the achievement of organizational Objectives
- Discuss the role of compensation in attracting and retaining a highly competent workforce.
- Discuss how compensation management can lead to competitive advantage.
- Discuss the role of compensation management for HR executives.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - Attendance: 5%
   - Class Participation: 5%
   - Library Assignment: 5%
   - Presentation: 5%
   - Quiz/Role Play/ Any other activities: 5%

Course Contents

UNIT I Introduction to Compensation Management **3 Hours**

- Meaning and Objectives of Compensation Management
- Components of Compensation
- Theories of Compensation
- Factors influencing Compensation Decisions

UNIT II Wage and Salary Administration **5 Hours**

- Concept of Wage, Types of Wages, Objectives of Wage and Salary Administration
- Theories of Wages
- Elements of Good Wage Plan
- Methods of Wage Payment
- Process of Wage Determination
- Wage Differentials
- State Regulation of Wages (Statutory Provisions Related to Wages) and National Wage Policy

Unit III Performance-based Compensation **4 Hours**

- Meaning of Wage Incentives
- Prerequisites for an Effective Incentive Plan
- Types of Wage Incentive Plans: Individual Incentive and Group Incentive Plans
- Profit Sharing in India
- Employee Co-partnership
- Employee Stock Option Plan

UNIT IV Managing Employee Benefits and Services **4 Hours**

- Nature of Benefits and Services, Objectives of Fringe Benefits
- Types of Employee Benefits and Services
- Principles of Fringes
- Guidelines for Effective Benefit Programmes
- Fringe Benefits in India

Unit V Compensation of Special Groups and International Compensation **4 Hours**

- Compensation strategy for CEOs
- International Pay System, Objectives of International Compensation
- Compensation Plan for an expatriate
- Components of International Compensation
- Various Approaches to International Compensation
- Repatriation Program and Process

Text Books

1. Milkovich, George T., Newman, Jerry M., and Venkata Ratnam, C.S., "Compensation", Ninth Edition, 2013, McGraw Hill, New Delhi.
2. Bhattacharya, Dipak Kumar, "Compensation Management", Sixth Impression, 2012, Oxford University Press, New Delhi.
3. Bhatia, Dr. Kanchan, "Compensation Management", 2012, Himalaya Publishing House Pvt. Ltd., Mumbai.

Suggested Reading

1. Armstrong, Michael, and Murlis, Helen, "Reward Management: A Handbook of Remuneration Strategy and Practice", 5th Edition, 2005, Hay Group, London.
2. Deb, Tapomoy, "Compensation Management", 2009, Excel Books, New Delhi.
3. Henderson, Richard I., "Compensation Management in a Knowledge-Based World", 2006, Dorling Kindersley (India) Pvt. Ltd., New Delhi.
4. Goel, Dewakar, "Performance Appraisal and Compensation Management: A Modern Approach", 2008, PHI Learning Private Limited, New Delhi.
5. Milkovich, George T, and Jerry M. Newman, "Compensation", 2005, McGraw Hill/Irwin, New York.
6. Belchor, David W, "Compensation Administration", 1973, Prentice Hall, Englewood Cliffs NT.
7. Memoria, C.B., "Personnel Management'', 2012, Himalaya Publishing House, New Delhi.

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Course Code: MSO 401 (Dr. Gitanjali)

Course Name: Management Principles and Functions

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Present a thorough and systematic exposure of Management theory and practice.
- Provide a basic understanding of fundamental concepts and principles of Management.
- Enable the students to understand the basic roles, skills and functions of Management.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - Attendance: 5%
   - Class Participation: 5%
   - Library Assignment:5%
   - Presentation: 5%
   - Quiz/Role Play/ Any other activity

Course Contents:

UNIT - I: Introduction to Management (5 Hours)

- Meaning and Importance of Management
- Nature and Functions of Management
- Roles of Managers, Types of Managers
- Evolution of Management Thought
- Social Responsibilities of Business

UNIT - II: Planning and Decision Making (4 Hours)

- Nature and Importance of Planning
- Steps in Effective Planning and Limitations of Planning
- Decision Making, Steps to Rational Decision Making
- Models of Decision-Making Behavior, Difficulties in Decision Making

UNIT - III: Organizing (5 Hours)

- Meaning and Importance of Organisation, Principles of Organizing
- Formal and Informal Organization, Span of Management
- Organizational Structures
- Line, Staff and Functional Authority
- Delegation of Authority and Decentralization of Authority

UNIT - IV: Coordinating (2 Hours)

- Need for Coordination
- Requisites for Effective Coordination
- Types and Techniques of Coordination
- Problems in Coordination

UNIT – V: Controlling (4 Hours)

- Steps in Control process
- Types of Control methods
- Control Techniques
- Problems in Control Process

Prescribed Text Books:

1. P C Tripathi & P N Reddy (2010), Principles of Management, 4th Edition, Tata McGraw Hill Education Private Limited, New Delhi.
2. Chuck Williams & Manas Ranjan Tripathy (2013), MGMT-Principles of Management: A South Asian Perspective, Cengage Learning India Pvt. Ltd., Delhi.
3. Harold Koontz & Heinz Weihrich (2010), Essentials of Management, 8th Edition, Tata McGraw Hill Education Private Limited, New Delhi.

Suggested Additional Readings:

1. Stephens P. Robbins, David A. Decenzo, Sanghamitra Bhattacharyya & Madhushree Nanda Agarwal (2010), Fundamentals of Management, 6th Edition, Pearson Education, New Delhi
2. James A. F. Stoner, R. Edward Freeman & Daniel R. Gilbert, JR (2010), Management, 6th Edition, Pearson Education, New Delhi
3. Karminder Ghuman & K Aswathappa (2010), Management, 1st Edition, Tata McGraw Hill Education Private Limited, New Delhi.
4. Dr. Neeru Vasishth (2011), Principles of Management, 3rd Edition, Taxmann publications Private Limited, New Delhi.
5. Gene Burton & Manab Thakur (2010), Management Today, 13th Edition, Tata McGraw Hill Education Private Limited, New Delhi.
6. Dr. P. Subba Rao & C. Hima Bindu (2010), Management Theory and Practice, 1st Edition, Himalaya Publishing House, New Delhi.

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Course Code: MSC 402 (Dr. Sarvesh)

Course Name: Service Marketing

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Understand the importance of Services.
- Understand the challenges towards Managing Services.
- Review and understand the past and ongoing trends in service industry.
- Understand the overall dynamics of services.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Semester Examination: 50%
3. Continuous Internal Assessment : 25%
   - Class participation: 5% (Student securing less than 75% of attendance will be given zero marks)
   - Presentations/Viva: 10%
   - Assignment (Role Play, Cases, Panel Discussion, Project, Surprise Quiz etc): 10%

Course Contents:

UNIT – I: Introduction to Services **(4 Hours)**

- Emergence of Service Economy
- Introduction to Services: Definition, Concepts & Nature of Services
- Service Environment

UNIT – II: Designing Services **(4 Hours)**

- Service Marketing Mix
- Physical Evidence and Servicescape
- Designing and Managing Services Processes
- Service Standards

UNIT – III: Pricing & Distribution of Services **(4 Hours)**

- Demand Capacity Management
- Pricing the Services
- Distribution of Services

UNIT – IV: Service Promotion **(3 Hours)**

- Positioning of Services
- Customer Expectation of Services
- Customer Perception of Services

UNIT – V: Managing Service Failure **(5 Hours)**

- Service Quality Model
- Employees and Service Delivery
- Customers and Service Delivery
- Service Failure and Recovery

Prescribed Text Books:

1. Gilmore, Audrey (2010). **Services Marketing and Management**; Response Book, New Delhi.
2. Lovelock, Christopher; Jochen Wirtz, and Jayanta Chatterjee (2011). **Service Marketing – People, Technology, Strategy, 7 e.;** Pearson, New Delhi.

Suggested Reading:

1. Acharyulu, G.V.R.K and V. Venkata Ramana (1012). **Emerging Trends in Health Care & Hospital Management,** Paramount Publishing House, Hyderabad
2. Clow, Kenneth E. and Donald Baack (2012**). Case Studies in Marketing Management**, Sage South Asia ed.; SAGE Publications India Pvt Ltd., New Delhi.
3. Jha, S.M. (2010). **Services Marketing**; Himalaya Publishing House, New Delhi.
4. Ellis, Nick; James Fitchett, Matthew Higgins, Gavin Jack, Ming Lim, Michael Saren and Mark Tadajewski (2012). **MARKETING: A Critical Textbook,** Sage South Asia ed.; SAGE Publications India Pvt Ltd., New Delhi.
5. Kumar, S. Ramesh; ed. (2012). **Case Studies in Marketing Management**; Pearson, New Delhi.
6. Rao, K. Rama Mohan (2011). **Services Marketing, 2e.**; Pearson, New Delhi.
7. Shahjahan, S. (2010). **Services Marketing: Concepts, Practices and Cases from Inian Environment**; Himalaya Publishing House, New Delhi.
8. Venugopal, Vasanti and V. N Raghu (2013). **Services Marketing**; Himalaya Publishing House, New Delhi.
9. Verma, Harsh V. (2011). **Services Marketing, 2e.**; Pearson, New Delhi.
10. Zeithaml, Valarie A.; Mary Jo Bitner, Dwayne D. Gremler and Ajay Pandit (2011). **Service Marketing – Integrating Customer Focus across firm**, **5 e.**; Tata McGraw Hill Private Limited, New Delhi.

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Course Code : MSC 401

Course Name : Marketing Management

Faculty Name : Dr. Sarvesh Kumar, Assistant Professor, Marketing &SCM, SBMS

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Enable the students to understand the conceptual framework of marketing and its application in decision making under various environmental constraints.
- Provides practical and innovative demonstration of abstract concepts through classroom exercises and group activity which enable the students to design effective marketing programs for any firm by selecting appropriate strategies for product, pricing, place and promotion.
- Offer learners an alternative approach to understand marketing by providing students with historical, critical, and analytical skills and improve familiarity of the students with current issues and emerging trends in marketing.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   a. Class participation : 5% (Less than 75% attendances will be awarded 0%)
   b. Assignments / Surprise test/Activity: 10%
   c. Presentations/Viva : 10%

Course Contents:

UNIT - I: Fundamentals of Marketing
(3Hours)

- Importance of Marketing
- Core Marketing Concepts and Philosophies
- An effective marketer and Customer-oriented Company

UNIT - II: Environmental Scanning and Analyzing Consumer Behaviour (4 Hours)

- Analyzing the Marketing Environment
- Impact of Environmental factors on marketing Decision
- The Buying Decision Process and Factors Influencing the Consumer Behavior
- ***Environmental Analysis (Case Studies): ITC in Rural India***

UNIT - III: STP & Marketing Mix-I (Product Decisions) (5 Hours)

- Market Segmentation, Market Targeting and Market Positioning
- Product Classification, Product Levels, Product Line and Product-Mix Decisions
- Product Differentiation and Creating Brand Equity & Crafting the Brand Positioning
- Product Life Cycle: Innovation and R&D, New Product Development Process

UNIT - IV: Marketing Mix-II (3 Hours)

- Pricing Decisions
- Distribution Decisions
- Promotion Decisions
- ***Pricing (Case Study): Arvind Mills: Re-evaluating Profitability***
- ***Advertising, Alternative and Direct Marketing (Case Study): Shoppers Stop – Targeting the Young***

UNIT - V: Implication of new technology and emerging trends in marketing (5 Hours)

- Technology implication on Modern Marketing: IT implication (Customer Relationship Management, e-CRM, Web Based Marketing, Internet Based Marketing, e-commerce, etc.) and Biotechnology implication (Gene revolution related issue) on Marketing
- Green Marketing (Environmental aspects)
- Social Marketing and Services Marketing
- Ethical issues in Marketing
- ***Website and Internet Management (Case Study): The Entrepreneurs at Twitter: Building a Brand, a Social Tool, or a Tech Powerhouse?***

Prescribed Text Books:

1. Clow, Kenneth E. and Donald Baack (2012).**Case Studies in Marketing Management**, Sage South Asia ed.; SAGE Publications India Pvt Ltd., New Delhi.
2. Ellis, Nick; James Fitchett, Matthew Higgins, Gavin Jack, Ming Lim, Michael Saren and Mark Tadajewski (2012). **MARKETING: A Critical Textbook,** Sage South Asia ed.; SAGE Publications India Pvt Ltd., New Delhi.
3. Kotler, Philip; Kevin Lane Keller; Abraham Koshy & Mithileswar Jha (2013). **Marketing Management: A South Asian Perspective, 14 e.;** Pearson Education, New Delhi.

Suggested Additional Readings:

1. Kotler Philip; Armstrong Gary; Agnihotri Prafulla Y. & Haque Ehsan Ul (2011). **Principles of Marketing: A South Asian Perspective, 12 e.;** Pearson Education, New Delhi.
2. Kumar, Arun and N. Meenakshi (2011). **Marketing Management, 2e.;** Vikas Publishing House Pvt. Ltd., New Delhi
3. Karunakaran, K. (2012). **Marketing Management: Text and Cases in Indian Context**; Himalaya Publishing House Pvt. Ltd., Mumbai.
4. Kapoor, Neeru (2014). **Principles of marketing**, PHI Learning Pvt. Ltd, Delhi.
5. Kumar, S. Ramesh; ed. (2012). **Case Studies in Marketing Management**; Pearson, New Delhi.
6. Maclaran, Pauline; Michael Saren, Barbara Stern and Mark Tadajewski; ed. (2010). **The Sage Handbook of MARKETING THEORY**; SAGE Publications India Pvt Ltd., New Delhi.
7. Sherlekar, S. A. (2010). **Marketing Management, 14e.** ; Himalaya Publishing House Pvt. Ltd., Mumbai.

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Course Code: MSO 506

Course Name: Strategic Management

Faculty Name: Dr. Sarvesh Kumar, Assistant Professor, M&SCM, SBMS

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Enable the students to apply strategic management theory and concepts to what managers do in "the real world".
- Enable the students to design effective strategic planning by selecting appropriate strategies.
- Improve familiarity of the students with current issues and emerging trends in strategic management in dynamic business environment.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. Minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Semester Examination: 50%
3. Continuous Internal Assessment : 25% *(Students are expected to undertake independent research and to study in a new way, questioning, investigation from academically rigorous sources)*
   - Class participation : 5% *(Less than 75% attendances will be awarded 0%)*
   - Presentations/viva : 10%
   - Case studies/Activities/Assignments/etc: 10%

COURSE CONTENTS:

UNIT – I: Introduction to Strategic Management (8 HOURS)

- Strategic Planning and strategic Management
- The Strategic Management Process
- Strategic Intent: Vision, Mission and Objectives
- Case Studies

UNIT – II: Environmental and Resources Analysis (7 HOURS)

- Environmental Analysis
- Industry Analysis
- Competitive Analysis
- Internal Analysis
- Case Studies

UNIT – III: Strategy Formulation and Choice (7 HOURS)

- Corporate Level Strategy
- Acquisition, Restructuring and Cooperative Strategies
- Global Strategy
- Business Level Strategy
- Strategic Analysis and Choice
- Case Studies

UNIT – IV: Strategy Implementation and Functional Strategies (8 HOURS)

- Strategy Implementation : Structural Issues
- Behavioural Issues in Strategy Implementation
- Operational Strategy
- Financial Strategy
- Marketing Strategy
- Case Studies

UNIT – V: Strategic Leadership and Control (10 HOURS)

- Strategic Leadership
- Strategy Evaluation and Control
- Strategy and Technology Management
- Designing a Technology Strategy
- Technology Forecasting and R&D Strategies
- Strategy for Acquisition and Absorption of Technology
- Globalization and Strategic Management

Prescribed Text Books:

1. David, Fred R. (2014). **Strategic Management: A Competitive Advantage Approach, 14e;** Eastern Economy Edition; PHI Learning Private Limited, Delhi.
2. Pitt, Martyn R. and Dimitrios Koufopoulos (2012). **Essentials of Strategic Management** Sage South Asia ed.; SAGE Publications India Pvt Ltd., New Delhi.
3. Wheelen, Thomas L. and J. David Hunger (2011). **Concepts in strategic management and business policy, 12e;** Pearson Education India, New Delhi.

Suggested Additional Readings:

1. Besanko, David; David Dranove, Mark Shanley and Scott Schefer (2013). **Evonomics of Strategy, 6e;** International Student version, Wiley Student Edition, Wiley India Pvt Ltd., New Delhi
2. Hamel, Gary and C. K Prahalad (1996). **Competing for the Future;** Harvard Business School Press, Boston.
3. Ghemawat, Pankaj (2009). **Strategy and Business Landscape: Text and Cases;** Pearson Education India, New Delhi.
4. Kazmi, Azhar (2012). **Strategic Management: A Competitive Advantage Approach**; Tata McGraw Hill Private Limited, New Delhi.
5. Srinivasan, R. (2012). **Strategic Management: The Indian Context, 4e.;** Eastern Economy Edition; PHI Learning Private Limited, New Delhi.
6. Srivastava, R. M. and Shubhra Verma (2013). **Strategic Management: Concepts, Skills and Practices;** Eastern Economy Edition; PHI Learning Private Limited, Delhi.
7. Subba Rao, P. (2011). **Business Policy and Strategic Management: Text and Cases, 2e.;** Himalaya Publishing House Pvt. Ltd., New Delhi.
8. Venkatesan, Ravi (2013). **Conquering the CHAOS : Win in India , Win everywhere;** Harvard Business Review Press, Boston.

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Course Code: AFA-509

Course Name: Management of Mutual Funds

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to enable students:

- To build up the knowledge of portfolio management
- To develop skills to choose a right mutual fund

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Semester Examination: 50%
3. Continuous Internal Assessment : 25%
   - Class participation: 5%
   - Presentations: 5%
   - Assignment: 5%
   - Viva: 10%

Course Contents:

UNIT – I: Introduction to Investment **(4 Hour)**

- Meaning of Investment, the investment process, Investment alternatives
- Concept of risk and return, Systematic and unsystematic risk
- Fundamental and technical analysis
- The efficient market hypothesis

UNIT – II: Basics of Mutual Funds (4 Hour)

- Meaning of Mutual Fund
- Structure of mutual fund
- Types of Mutual Funds, Benefits of mutual funds investment
- Mutual Fund Style
- Regulation of Mutual Funds in India

UNIT – III: Asset Pricing Models (4 Hours)

- Mean-Variance Portfolio Theory, Markowitz efficient frontier
- Capital Asset Pricing Model (CAPM)
- Arbitrage pricing theory

UNIT – IV: Mutual Fund Performance Evaluation (4 Hours)

- Sharpe Ratio
- Treynor Ratio
- Sortino Ratio
- Comparing the Risk-Adjusted Measure

UNIT – V: Stock selection, Market timing and persistency (4 Hour)

- Stock-selection ability
- Market-timing ability
- Persistency

Prescribed Text Book(s):

1. Sadhak, H. (2009). Mutual Funds in India: Marketing Strategies and Investment Practices (2nd ed.). New Delhi: Sage Publications.
2. Fischer & Jordan (2011). Security Analysis and Portfolio Management (6th ed.). New Delhi: PHI

Suggested Readings

3. Prasanna Chandra (2012). Investment Analysis and Portfolio Management (4th ed.). New Delhi: Tata McGraw Hill
4. Ingle, V. D. (2009). Mutual Funds in India (Ist ed.). New Delhi: New NC Century.
5. Parnami, Rajendra (2012). Mutual Fund and Stock Market (Ist ed.) New Delhi: Vakratund Publishers.
6. Indian Institute of Banking & Finance (2009). Mutual Funds in India (Ist ed.). New Delhi Taxman Publications.
7. Christopherson, A. John, Carino R. David and Ferson, E. Weyne (2009). Portfolio Performance Measurement and Benchmarking (2nd ed.). New Delhi: Tata Mcgraw Hill Education Private Limited
8. Elton , J. Edwin, Gruber J. Martin, Brown, J.Stephen and Goetzmann N. William (2007). Modern Portfolio theory and Investment Analysis Wiley Publications

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Course Code: AFA 415

Course Name: Stock Market Operations

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Help students in understanding Basic concepts of Stock market.
- Understand the working of Indian Stock market.
- It is also aimed at helping student equip themselves with the various terminology used in stock markets as well as practical Implication of stock markets.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
    - Library Work Assignment: 5%

- Subjective Assignment: 5%
- Quizzes/Games/Puzzles: 5%
- Personality Assessment: 5%
- Live Projects: 5%

Course Contents:

UNIT - I: **An overview of Financial Markets in India** **(3 Hours)**

- Introduction of Indian Financial System, Functions of Financial System, Financial Assets
- Money market: Features, Instruments, Composition and Functions
- New Issue Market: Functions, Methods of Floating New Issue, SEBI Guidelines for IPO, Recent trends in New Issue Market.

UNIT - II: **Equity Market** **(5 Hours)**

- Players in the equity market: Depository Institutions, Insurance Companies
- Asset Management Firms, Investment Banking firms.
- Structure of Secondary market: Functions of secondary market, architectural structure of secondary market.
- Secondary Market Trading Mechanics: Types of orders, Short selling
- Brokers: Kinds of brokers, Role of brokers and Dealers in Real market.

UNIT - III: **Trading System in Stock Exchanges** **(5 hours)**

- Meaning and Functions of Stock exchanges.
- Organisation of Stock Exchanges in India: Traditional structure, Demutualisation, Corporatisation of Stock exchanges.
- Listing of Securities: Advantages of listing, listing Procedure
- Clearing and Settlement, Online Trading, D-Mat
- Speculative Transactions, Margin Trading, Stock Market Quotations

UNIT - IV: **Indian Stock Exchanges** **(4 Hours)**

- NSE: Features, Corporate Structure of NSE, Stock Indices of NSE
- Trading at NSE: Wholesale Debt Market (WDM), Public Issue Offerings(PIO), Time Bound PIO System, Screen Based Trading System(SBTS)
- BSE: Introduction, Organistion structure, Segments of BSE.
- Indices of BSE, Trading and Settlement System at BSE

UNIT – V: **Derivatives Market** **(3 Hours)**

- Introduction to Financial Derivatives, Derivatives market in India
- Forward Contract, Hedging of Foreign Exchange Risk through Currency Forwards, Advantages and Disadvantages of Forwards.
- Future Contracts, Options, Swaps

Prescribed Text Books:

1. Gordan and Natrajan (2011), Financial Market Operation, First Edition, Himalaya Publishing House, New Delhi.
2. Fabozzi and Modigliani (2010), Capital Markets Institutions and Instruments, Fourth Edition, PHI Learning, New Delhi.
3. Chakrabarti (2010) Capital Markets in India, Second Edition, Response Books (Sage), New Delhi.
4. Alok Goyal, Financial Market Operation, 2012 Edition, VK Publications, New Delhi.

Suggested Extra Readings:

1. Sarma (2011), Banking and Financial System, First Edition, Foundation Books, New Delhi.
2. Bhalla (2011) Investment Management, Seventeenth Edition, S. Chand, New Delhi.
3. Kevin (2011) Security Analysis and Portfolio Management, Tenth Edition, PHI Learning, New Delhi.
4. Hull (2011) Risk Management and Financial Institutions, Second Edition, Pearson, New Delhi.
5. Fabozzi (2011) Foundations of Financial Markets and Institutions, Third Edition, Pearson, New Delhi.
6. Sanjeev Agarwal, *A Guide to Indian Capital Market*, Bharat Publishers
7. Ravi Puliani and Mahesh Puliani, *Manual of SEBI*, Bharat Publication.
8. Khan and Goel (2011), Capital and Money Market, First Edition, Himalaya Publishing House, New Delhi.

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Course Code: CBB 403

Course Name: Introduction to Statistics and Probability

Credits Equivalent: 2

2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed

- To inculcate into the students necessary skills to analyze and interpret data
- To equip the students with various statistical tools and techniques for decision making

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Attendance: 5%
  - Class participation: 5%
  - Presentation & Library Work Assignment: 5%
  - Quizzes/Games/Puzzles: 5%
  - Case study : 5%

Course Contents:

UNIT I Introduction to statistics (3 Hours)

- Basic statistical concepts, Data measurement, Subdivisions within Statistics
- Arranging Data Using the Data Array and the Frequency Distribution, Constructing & Graphing Frequency Distributions
- Charts and Graphs, Quantitative Data Graphs, Qualitative Data Graphs , Graphical Depiction of Two-Variable Numerical Data

UNIT II Descriptive Statistics (3 Hours)

- Measures of Central Tendency: Mode, Mean, Median, Quartiles, Percentiles,
- Measures of Variability: Range, Interquartile Range, Mean Absolute Deviation, Variance, Standard Deviation, Empirical Rule, Chebyshev's Theorem, Population versus Sample Variance and Standard Deviation, Coefficient of Variation, Z-scores
- Measures of Shape: Skewness, Kurtosis

UNIT III Probability & Probability Distributions (5 Hours)

- Probability: Methods of assigning probability, Classical Method, Relative Frequency of Occurrence, Subjective Probability,
- Marginal, Union, Joint, and Conditional Probabilities, Addition laws, multiplication laws
- Conditional probability, Revising Prior Estimates of Probabilities: Bayes' Theorem
- Random variables & Probability Distributions
- Discrete probability distributions: Binomial distribution, poison distribution
- Continuous probability distributions: The uniform distribution, normal distribution

UNIT IV Inferential Statistics (4 Hours)

- Sampling & Sampling Distribution
- Central limit theorem
- Point estimates, Interval estimates and Confidence Interval
- Testing of Hypothesis, Type I and Type II errors, level of significance, power of a test

UNIT V Forecasting & Index Numbers (5 Hours)

- Simple regression analysis and correlation
- Determining the regression equation, residual analysis, standard error of the estimate, coefficient of determination
- Multiple regression analysis, Building Multiple Regression Model

- Time series components, Trend Analysis, Cyclical Variation, Seasonal Variation, Irregular variation
- Some Advanced Topics in Time Series, Stationarity, Autoregression, Autocorrelation
- Index numbers, meaning and uses, Issues in constructing and using index numbers

Prescribed Text Books:

1. Black Ken. (2009). Business Statistics for Contemporary Decision Making. Wiley India, New Delhi
2. Levin, Rastogi, Siddiqui & Rubin. (2012). Statistics for Management. Pearson Education, Noida

Suggested Extra Readings:

1. Miller & Miller. (2003). John E. Freund's Mathematical Statistics with Applications. Pearson Education, Noida
2. Spiegel M., Schiller J., Shrinivisan A. and Goswami D. (2010). Probability and Statistics (Schaum?s Outline Series). Tata McGraw Hill, New Delhi
3. Levine, Berenson, Krehbiel & Viswanathan. (2012). Business Statistics: A First Course. Pearson Education, Noida
4. Vohra N D. (2012). Business Statistics. Tata McGraw Hill, New Delhi
5. Beri G. (2009). Business Statistics. Tata McGraw Hill, New Delhi

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[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: HRM 503

Course Name: Human Resource Development

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Familiarize students to the field of HRD and provide a clear understanding of Concepts, processes and practices of HRD
- To show how concepts and theories can and have been put into practice in a variety of organizations
- Train students to apply HRD for bringing out organisational effectiveness.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - Attendance and Class Participation: 5%
   - Library Assignment:5%
   - Presentation: 10%
   - Quiz: 5%

Course Contents

UNIT IFoundations of Human Resource Development **3 Hours**

- Introduction to Human Resource Development
- Functions of HRD
- HRD Matrix and Role of HRD managers as Change Agent

UNIT II Framework of Human Resource Development **4 hours**

- HRD Need Assessment – Strategic, Task and Personal Analysis
- Designing Effective HRD program
- Implementing HRD Program
- Evaluating HRD Program

UNIT III Learning and Training **4 hours**

- Basic Learning Principles
- Learning Styles
- Individual Differences in Learning
- Training and Development- Methods
- Evaluation of Training Programs

UNIT IV Career and Performance Management **6 hours**

- Career – Concept and stages
- Models of Career development
- Process of Career management
- Performance management- Process
- Coaching , Counselling, Mentoring
- Competency Mapping and HR Scorecard

UNIT V Strategic HRD and Current Issues of HRD **3Hours**

- Strategic HRD
- HRD Audit
- Globalization, Technology and HRD Issues

Case Study:

1. *Aligning Strategy wirh the Performance Management System- Cases and Examples from World Class Organizations*
2. *HR Scorecard at Tata Engineering*

Text Books:

1. Werner, J.M; Desimone, R.L.(2012). Human Resource Development. Cengage Learning Private Limited, New Delhi, Fifth Edition
2. Bhattacharyya, D.R. Human Resource Development"Himalaya Publishing House, 2009.

Additional Readings:

3. Reid, Barrington and Brown, Human Resource Development, 7th edition, Pinnacle, 2007
4. Mankin, D."Human Resource Development" Oxford University Press.2009

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: **HRM 401**

Course Name: **Organizational Behaviour**

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Familiarize students to the field of Organizational Behaviour and provide a clear understanding of Concepts, processes and practices of Organizational Behaviour
- To show how concepts and theories can and have been put into practice in a variety of organizations
- Train students to apply the Knowledge of Organizational Behaviour for bringing out organisational effectiveness.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - Attendance and Class Participation: 5%
   - Library Assignment:5%
   - Presentation: 10%
   - Quiz: 5%

Course Contents

UNIT IIntroduction to Organizational Behaviour **4 Hours**

- Definition and Importance of OB
- Multidisciplinary Nature of OB
- Understanding and managing individual behaviour, Decision Making
- Models of OB

UNIT II Perception, Attitude and Job Satisfaction **4 hours**

- Perception, Factors affecting Perception
- Meaning and Components of Attitude
- Major Job attitudes
- Job satisfaction and Factors Affecting Job satisfaction

Unit III Leadership and Motivation **6 Hours**

- Definition and Importance of Leadership
- Theories of leadership-Trait , Contingency and Behavioural Theories
- Motivation – Concept and Importance
- Content and Process Theories of Motivation
- Implication of Motivational Theories in Management

UNIT IVGroup Dynamics and Work Teams **3 Hours**

- Group , Types of Group
- Stages of Group Development
- Group Property, Group Think, Group Shift
- Team and Types of Team
- Introduction to Conflict, Johary Windows and Transactional Analysis

Unit V Foundation of Organizational Culture and Organizational Structure **3 Hours**

- Organizational culture- Definition and Importance
- Spirituality and Organizational culture
- Organizational Structure, Types and Its Importance

Text Books

1. Robbins, P.; Judge, A. and Vohra, N .(2012), Organizational Behaviour, Pearsons. 14th Edition
2. Nelson,D,;Quick, James; Khandelwal(2012). ORGB.Cengage Learning. Second Edition

Suggested Reading

3. Luthan, F.OrganizationalBehaviour.McGraw Hills.1995
4. Ashwathapa, K.. "Organizational Behaviour"Himalyan Publishing House.
5. Pareek, U.''Understanding Organizational Behaviour". Orford University Press. Second Edition
6. Prasad, L.M. "OrganizationalBehaviour "Sultan Chand and Sons, New Delhi.

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: MSC401

Course Name: Marketing Management

Faculty Name: Dr. Bhagwan Singh, HoD of Department of Marketing & Supply Chain Management (M&SCM), School of Business & Management Studies (SBMS)

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Enable the students to apply marketing theory and concepts to what marketers do in "the real world".
- Enable the students to design effective marketing programs by selecting appropriate strategies for product, pricing, place and promotion.
- Improve familiarity of the students with current issues and emerging trends in marketing.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Semester Examination: 50%
3. Continuous Internal Assessment: 25%
   - Class participation: 4%
   - Assignments: 4%
   - Presentations: 4%
   - Case studies/Field Survey: 8%
   - Surprise test/Activity: 5%

Course Contents:

UNIT – I: Introduction to Marketing (4 Hours)

- Importance of Marketing
- Scope of Marketing
- Core Marketing Concepts
- Key Marketing Concepts
- Holistic Marketing Approach
- Company Orientation towards the market place
- Marketing Management Tasks

UNIT – II: Developing Marketing Strategies & Plans (4 Hours)

- STP, Levels of Market Segmentation
- Market Segmentation and targets.
- The Buying Decision Process and Factors Influencing the Consumer Behavior
- Factors of Marketing Environment
- Global Marketing: Developing Global Vision

UNIT – III: Buying Behaviour, Marketing Mix, Product and Pricing Decisions (6 Hours)

- Business Unit Strategic Planning
- Marketing Mix (4 Ps to 7 Ps)
- Decision Support System
- Competitive Strategies for Market leaders
- Pricing Methods or Strategies

UNIT – IV: Brand, Branding Decisions and Marketing network (3 Hours)

- Creating Brand Equity & Crafting the Brand Positioning
- Role of Distribution and Marketing Network

UNIT – V: Emerging Trends in Marketing blended with Internet (3 Hours)

- Internet based marketing
- Web Based Advertising
- Corporate Social Responsibility
- Interactive Marketing Communication

Prescribed Text Books:

1. Kotler Philip, Keller Kevin Lane, Koshy Abraham , Jha Mithileswar. *Marketing Management: A South Asian Perspective, 13th Edition*, Pearson Education, New Delhi. 2009
2. Lamb, Charles, Joe Hair, and Carl McDaniel, *MKTG*, Cengage Learning, 2013.
3. Dave Chaffey ,Fiona Ellis-Chadwick, Kevin Johnston & Richard Mayer (2009), *Internet Marketing: Strategy*, *Implementation and Practice*, *3rd Edition*, Pearson Education

Suggested Additional Readings:

1. Baines, P., Fill, C.,Page, K. *Marketing.* Oxford university press. 2013
2. Chaffey, Dave. *E-business and E-commerce Management: Strategy*, *Implementation and Practice*. Pearson Education, 2013
3. Kumar S.R. *Case Study in Marketing Management*. Pearson Education, 2012
4. Karunakaran K. Marketing Management: Text and Cases in Indian Context. Himalaya Publishing House, 2012
5. Neelamegham S. *Marketing in India: Text and Cases 4th ed*. Vikas Publication, 2012
6. Mukerjee H.S. Business Communication: Connecting at Work. Oxford University Press, 2013
7. Wells, W. D., Burnett, J., & Moriarty, S. *Advertising Principles and Practice 7th ed.* Pearson Publication.2008

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Course Code: MSO 506

Course Name: Strategic Management

Faculty Name: Dr. Bhagwan Singh, Head & Associate Professor, M&SCM, SBMS

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Enable the students to apply marketing theory and concepts to what marketers do in "the real world".
- Enable the students to design effective marketing programs by selecting appropriate strategies for product, pricing, place and promotion.
- Improve familiarity of the students with current issues and emerging trends in marketing.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. Minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Semester Examination: 50%
- Continuous Internal Assessment : 25%
  - Class participation: 5%
  - Assignments: 4%
  - Presentations: 4%
  - Case studies & Field Surveys: 8%
  - Surprise test/Activity: 4%

COURSE CONTENTS:

UNIT – I: Introduction to Strategic Management (8 HOURS)

- Overview & Basic concept
- Functional Plans and policy
- Functional Strategies
- Strategic Choice
- Situational Analysis (SWOT)
- Analyzing Industry & Competition
- Competing in Global Market
- Globalization and Strategic Management

UNIT – II: Levels of Strategic Management (8 HOURS)

- Business Level Strategies
- Strategic Decision Making
- Change Management

UNIT – III: Scanning the Environment (8 HOURS)

- Environment Scanning & Industrial Analysis
- External Environment and Industry Analysis
- Internal Scanning: Organizational Analysis
- Resources, capabilities & competitive advantage
- Strategies for cost advantage & Differentiation advantage
- Corporate Governance
- Social Responsibility & Ethics in SM

UNIT – IV: Strategy Formation & Building Portfolio (9 HOURS)

- Functional Strategy & Strategic Choice
- Strategic Evaluation & Control
- Vertical Integration
- Diversification

UNIT – V: Strategy Implementation & Control (7 HOURS)

- Organizing for Action
- Staffing & Direction
- Evaluation & Control
- Strategic Option
- Managing Strategic Change

Prescribed Text Books:

1. Wheelen, T. L., & Hunger, J. D. (2011). *Concepts in strategic management and business policy*. Pearson Education India.
2. Sadler, P. (Ed.). (2001). *Strategic Management*. Kogan Page Publishers.
3. Singh, D.B. (2012). *Strategic Management and Business Policy*. Dreamtech Press.

Suggested Additional Readings:

1. Arthur A. Thomson, A.J. Strick land III, John E. Cambel (2011). Crafting and Executing Strategy. 18th Edition. Tata Mac Grow Hill, New Delhi.
2. Grant M. Robert (2011). Contemporary Strategic Management. Sixth Edition. Wiley India Pvt. Ltd, New Delhi.
3. Pearce A. John, Robinson B. Richard and Mital Amita (2008). Strategic Management- Formulation, Implementation and Control. 10th Edition. Tata McGraw Hill, New Delhi.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: EDM 401

Course Name: Fundamentals of Entrepreneurship

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Develop Entrepreneurship Skills in Students by giving an overview of who the entrepreneurs are and what competencies are needed to become an Entrepreneur.
- Enable the students to prepare business plan, successfully launch and subsequently manage their enterprises.
- Make students familiar with different financial institutions which support entrepreneurship development.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Business Plan : 15%
  - Assignments/Presentation : 5%
  - Class Participation : 5%

Course Contents:

UNIT – I: Fundamentals of Entrepreneurship (6 Hours)

- Concept of Entrepreneur
- The Nature and Importance of Entrepreneurship
- Theories of Entrepreneurship
- Classification of Entrepreneurs/Entrepreneurship
- Successful Entrepreneurs

UNIT – II: Entrepreneurial Development (5 Hours)

- Factors Influencing Entrepreneurial Development
- Entrepreneurial Development Models
- Entrepreneurship Development Programme
- Entrepreneurship: Emerging Areas

UNIT – III: Creating and Starting the Venture (7 Hours)

- Creativity and Business Idea.
- Legal Issues for the Entrepreneur
- Feasibility Analysis
- The Business Plan

UNIT – IV: Entrepreneurship Management (6 Hours)

- Selection of types of ownership
- Strategies for Growth
- Entrepreneurial Sickness
- Cases: Best management practices

UNIT – V: Support Institutions (6 Hours)

- Central Level Institutions: KVIC, SIDO, NSIC, NIESBUD, IIE and EDII.
- State Level Institutions: DIs, DICs, SFCs, SIDCs and SSIDCs.
- SIDBI, NABARD and Other Agencies.
- Clustering

Prescribed Text Books:

1. Hisrich, R.D., Peters, M.P. & Shepherd, D.A., (2008), Entrepreneurship, Sixth Edition, Tata McGraw-Hill, New Delhi.
2. Charantimath P.M., (2008), Entrepreneurship Development & Small Business Enterprise, Third Edition, Pearson Education, New Delhi.
3. Khanka, S.S., (2012), Entrepreneurial Development, First Edition(Revised). S. Chand & Company Ltd., New Delhi.

Suggested Extra Readings:

1. Zimmerer, W., Thomas, Scarborough, M., Norman, (2009), Essentials of Entrepreneurship and Small Business Management, Fifth Edition, PHI Learning Private Ltd, New Delhi.
2. Barringer, R., Bruce, Ireland, Duane, R., (2011), Entrepreneurship: Successfully Launching New Ventures, Third Edition, Pearson Education, New Delhi.
3. Timmons, A., Jeffry, Spinelli, Stephen, (2009), New Venture Creation: Entrepreneurship for the 21st Century, Seventh Edition, Tata McGraw-Hill, New Delhi.
4. Morse, A., Eric, Mitchell, K., Ronald, (2009), Cases in Entrepreneurship: The Venture Creation Process, Fourth Printing, SAGE Publications Inc., New Delhi.
5. Desai, Vasant, (2012), Entrepreneurial Development and Management of Small and Medium Enterprises, Second Edition Edition, Himalaya Publishing House, Mumbai.
6. Sinha, S K (2010), Small Business Management, Centrum Press, New Delhi.
7. Desai, Vasant, (2011), Entrepreneurial Development, Sixth Edition, Himalaya Publishing House, Mumbai.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: MIB 411

Course Name: International Business Environment

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to enable the student to know about global trade environment and the factors influencing international trade. It also emphasizes on the role of GATT, WTO and other International organizations influencing international trade majorly.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%

- Attendance 5%
- Quiz 5%
- Case study 5%
- Presentation 10%

Course Contents

UNIT I Overview of International Business (**2 Hours)**

- The Growing relevance of globalization, International/Global Marketing, Why go International?
- International orientations, internationalization stages and orientations, Drivers and Restrainers of Globalization
- Internationalization Business Decisions
- Types of International Business
- Case Study(Mc Donald's Sells Hamburgers in India)

UNIT II International Business Environment and Trading Strategies (**8 Hours)**

- Determinants of Entry Mode, the trade mode, Contractual Entry Modes,
- Foreign Investment, FDI, Mergers and Acquisitions
- Benefits and Costs of FDI
- Strategies and MNC's, competitive advantage and value chain, International Strategic alliances, International Marketing Management and Supply chain management of MNC's
- Economic Environment, Economic Structures, The Balance of payments, Socio/Cultural Environment, Religion, Language, Culture and OB, Demographic, Political, Regulatory, Natural, Technological Environment
- Trade strategies, Free Trade, Methods of Protection, Dumping, Tariffs, Quantitative Restrictions, other non Tariff barriers, Commodity agreements, Cartels, State Trading, Trading Blocks, Forms of Integration
- Case study

UNIT III International Trading Environment **(4 Hours)**

- Dropping Barriers to World Trade: Gatt to WTO,Regional Trade agreements and their necessity, European Union, European Union Institutions, NAFTA, South- South Cooperation, SAARC, SAPTA, Indo – Lanka Free Trade Agreement, India-Singapore CECA, FTA's
- GATT, WTO, GATS, TRIMS, TRIPS, IPR's, Dispute settlement, Anti Dumping Measures, Evaluation of Uruguay Round and WTO, WTO and developing Countries, The Lodha Declaration, Hong Kong Ministerial Meet
- WTO and India
- Case study

UNIT IV International Political and Legal Environment **(3 Hours)**

- Importance of international political environment, nature of politics, political instability and risk, assessment of political risk, handling political risk
- Domestic, international, and super national law, National Legal systems
- The conflict of laws, Arbitration, International Conventions, Uniform laws

UNIT V International Socio Cultural and Financial Environment (3Hours)

- Concept of Culture, Meaning and Nature, Cultural Diversity, Management of Cultural Diversity
- Bretton woods system, breakdown of Bretton woods system, EURO, Foreign Exchange market, Exchange Rate System, Classification
- Foreign Exchange market, Market for derivatives, International Financial Market

Case Study:

1. **South East Asian Economic Crises**
2. **Whose Basmati it is?**
3. **Mc Donald's Sells Hamburgers in India**
4. **Resolution of Trade Conflicts under the WTO'S Dispute Settlement Understanding**

Text Books:

1. Cherunilam Francis (2010). International Business. Prentice Hall of India Private Limited. New Delhi.
2. Cullen. (2010). International Business. Routledge.
3. Paul Justin (2010). Business Environment-Text and Cases. Tata McGraw Hill, New Delhi.
4. Bennett Roger (2011). International Business. Pearson Education, New Delhi.

Additional Readings:

1. Levi MauriceD. (2009). International Finance. Routledge.
2. Conklin David w. (2011). The Global Environment of Business. Sage Publications.
3. Mithani D M. (2009). Economics of Global Trade and Finance. Himalaya Publishing House New Delhi.
4. Cherunilam Francis (2011). International Business Environment. Himalaya Publishing House, New Delhi.
5. Saleem Shaikh (2010). Business Environment. Pearson Education, New Delhi.
6. Sundharam K.P.M. and Datt Ruddar (2010). Indian Economy, S. Chand & Sons, New Delhi.
7. Sharan Vyptakesh (2003). International Business: Concept, Environment and Strategy. Pearson Education, New Delhi

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Course Code: MSC 507

Course Name: Rural Marketing

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Enable students to apply the concepts and methods of marketing management to rural markets.
- Understand the characteristics of the evolving rural consumer
- Understand the unique challenges and peculiarities of Indian Rural Markets.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  a. Class participation = 5%
  b. Field work/Presentation = 10%
  c. Case studies/Assignment = 5%
  d. Surprise test/Activity = 5%

Course Contents:

UNIT - I: Rural Marketing **(6 Hours)**

- Rural Markets and its unique features, Rural Marketing, Evolution of Rural Marketing, and Difference between Rural Marketing and Urban Marketing.
- Need for Exploring the Rural Markets and Go Rural Decision
- Rural Marketing Models and Rural Marketing: Challenges & Opportunities
- The Rural Marketing Mix

UNIT - II: Rural Market Environment and Segmenting and Attracting Rural Markets (5 Hours)

- Rural Marketing Environment and their influences on marketing operations
- Need for Rural Market Segmentation, and Bases for Market Segmentation
- Emerging Segments and guides to effective segmentation
- Market Segmentation, Targeting and Positioning Strategies
- Cases: Selecting and Attracting Rural Markets

UNIT - III: Rural Consumer Behaviour and Rural Marketing Mix-I (7 Hours)

- Model of Consumer Behavior
- Buyer Characteristics, Rural Shopping Habits/Buying behavior patterns
- 4As of Rural Marketing
- Product Strategies in Rural Marketing
- Pricing Strategies in Rural Markets

UNIT - IV: Rural Marketing Mix-II (6 Hours)

Distribution Decisions: -

- Distribution- The availability Challenge
- Distribution Practices and Rural Logistics
- Distribution Decisions
- Guidelines for Achieving Efficiency in Retail Operations

Promotion Decisions: -

- Rural Promotion Mix-IMC
- Promotion Strategies
- Rural Specific Promotion Methods and Developing the Sales Force for Rural Markets

UNIT – V: Applications (6 Hours)

- Marketing of Consumer Goods and Services
- Social and Agricultural Marketing
- Marketing of Rural Industrial Products
- Marketing in Small Towns
- Future of Rural Marketing in India

Prescribed Text Books:

1. Krishnamacharyulu C S G and Ramakrishnan Lalitha (2011), Rural Marketing: Text and Cases, Second Edition, Pearson Education, India.
2. Kashyap Pradeep, Rural Marketing (2012), Second Edition, Pearson Education, India.
3. Balram, Dogra and Ghuman Kharminder (2008), Rural Marketing: Concept and Practices, Tata McGraw Hill, New Delhi.

Suggested Additional Readings:

1. Gopalaswamy T P, Rural Marketing, Wheeler Publishers, New Delhi.
2. Kashyap Pradeep, Amp, Raut, Sidhartha (2005), Rural Marketing, Wiley, New Delhi.
3. Neelmeghan S, Marketing in India: Cases and Readings, Vikas Publishing House, New Delhi.
4. Krishnamoorthy R(2011), Introduction to Rural Marketing, 3rd Revised Edition, Himalaya Publishing House Pvt. Ltd., Mumbai.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: MSC 512

Course Name: International Marketing

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Acquainting students with the concepts and operations of marketing in international environment.
- Enable the students to develop and implement plans and strategies for entering international markets and managing overseas operations.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  a. Class participation = 5%
  b. Assignments/Presentations=10%
  c. Case studies =5%
  d. Surprise test/Activity =5%

Course Contents:

UNIT - I: International Marketing **(7 Hours)**

- Meaning, Nature and Importance of International Marketing
- Concepts and International Marketing Orientations
- Factors Affect International Marketing
- Reasons for International Marketing and International Marketing Decisions
- Driving and Restraining Forces

UNIT - II: International Marketing Environment **(5 Hours)**

- Internal and External Environment
- Barriers in International Marketing
- Growing Intra-regional Trade
- The Mindset of a global company
- MNCs and Emerging Countries

UNIT - III: Foreign Market Selection **(6 Hours)**

- Market Selection Process
- Determinants of Market Selection
- International Market Segmentation, Targeting, and Positioning
- Foreign Market Entry Strategies

UNIT - IV: International Marketing Mix **(7 Hours)**

Product Decisions: -

- Product mix and International PLC
- Branding, Packaging, and Labeling
- Product Communication Strategies

Pricing Decisions: -

- Environmental Influences on Pricing Decisions
- Global Pricing objectives and Strategies

Distribution Decisions: -

- International Channel System and Types of Intermediaries
- Channel Strategy for New market Entry
- International Logistics

Promotion Decisions: -

- Promotion Strategies and Communication Mix
- Role of Export Promotion Organisation and Problems in International Marketing Communication

UNIT – V: Issues in Global Marketing and Future of Global Marketing (5 Hours)

- Export Promotion, Export Procedures and Documents
- Global e-marketing, and International Marketing of Services
- Future of Global Marketing

Prescribed Text Books:

1. Keegan Warren J. & Bhargava Naval K. (2011), Global Marketing Management, 7th Edition, Pearson Education, India.
2. Joshi R M (2005), International Marketing, Oxford University Press.
3. Rajagopal, International Marketing: Global Environment, Corporate Strategy, Case Studies, Vikas Publishing House Pvt. Ltd., Delhi.

Suggested Additional Readings:

1. Srinivasan R, International Marketing (2011), 3rd edition, PHI Learning Pvt. Ltd., New Delhi.
2. Joshi R M (2005), International Marketing, Oxford University Press.
3. Kotler Philip, Principles of Marketing, Prentice Hall New Delhi.
4. Fayerweather John, International Marketing, Prentice Hall, New Delhi.
5. Bhattacharya R L & Varshney B, International Marketing Management, Sultan Chan, New Delhi.
6. Onkvisit Sak and John J Shaw, International Marketing: Analysis and Strategy, Prentice Hall, New Delhi.
7. Cherunilam Francis (2012) International Marketing (Text and Cases), 12th Revised Edition, Himalaya Publishing House Pvt. Ltd., Mumbai.
8. Siddiqui S A (2011), International Marketing, Dreamtech Press.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: AFA 507

Course Name: Working Capital Management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

Acquaint the students with the concept of working capital, its overall management, the various constituents of working capital and their management, determining and financing working capital requirements.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - i Library Work Assignment: 10%
  - ii Case study: 5%
  - iii Group Presentation: 10%

Course Contents:

UNIT - I: Working Capital Planning (4 Hours)

- Meaning and Objectives of Working Capital.
- Operating Cycle Concept.
- Working Capital Requirement.
- Working Capital Management Strategies.
- Estimation of working Capital.
- Characteristics of Current Assets, Level of Current Assets
- Current assets financing policy, Cash requirement for working capital

UNIT - II: **Liquidity, Cash and Marketable Securities** **(4 Hours)**

- Liquidity and Its role
- Cash Management and Collections, Long term cash forecasting, Reports for control, Optimum cash Balance and Investment of Surplus funds
- Control of disbursements
- Investment in Marketable Securities
- Tandon Committee and Chore Committee Recommendations for Working Capital Management.
- Liability Management and Short/Medium Term Financing
- Working Capital Financing
- **Kingfisher Failure an evaluation of Liquidity aspects**

UNIT - III: **Cash Management and Relevant Case Study** **(5Hours)**

- Cash assets and liquidity management
- Objective of Cash Management.
- Factors Determining the Cash Needs.
- Management of Cash Balance.
- Issues in Cash Management.
- Sources and Types of Float.
- Cash Management Models.
- Methods of Cash Forecast.
- **Case Study on Issues and Management of Cash**

UNIT - IV: **Cash Budgeting and Cash Flow Statement** **(4 Hours)**

- Meaning and Concept of Cash Budgeting.
- Technique of Preparation of Cash Budget.
- Accounting Standard No.3.
- Procedure for preparing Cash Flow Statement.

UNIT - V **Inventory and Accounts Receivable** **(3 Hours)**

- Types and Need of holding Inventory.
- Inventory Control Techniques.EOQ, Order point, Pricing of Raw Materials and Valuation of stocks, Monitoring and control of Inventories
- Inventory System and ABC Analysis
- Cost of maintaining accounts receivable
- Formulation of credit policies
- Analysis of customer credit worthiness
- Factors influencing size of receivables

Prescribed Text Books:

1. Kishore M. Ravi, Financial Management. Seventh Edition. Taxmann's publishing House, New Delhi.
2. Dhamija, Horne. Financial Management and Policy. Twelfth Edition. Pearson, New Delhi.
3. Khan and Jain, Financial Management: Text and Problems. Third Edition Tata McGraw-Hill
   Publishing House, New Delhi.

Suggested Additional Readings:

1. Rao P. Mohana, and Alok K. Pramanik. Working Capital Management. Deep and Deep Publishing House, New Delhi
2. Chandra. Prasanna, (2009). Financial Management: Theory and Practice. Sixth Edition. Tata McGraw- Hill Publishing House, New Delhi.
3. Pandey. I M, (2009). Essential of Financial Management. Third Edition. Vikas Publishing House, New Delhi.
4. Dr. Periasamy .P, (2010).Working Capital Management. Second Edition. Himalaya Publishing House, New Delhi.

School of Earth & Environmental Sciences

Department of Environmental Sciences

School of Earth & Environmental Sciences

Name of the Department: **Department of Earth & Environmental Sciences**
Name of the Programme of Study**: MSc (Environmental Sciences)**

Courses for Semester 1

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	ENV 403	Environmental Chemistry	4	NA	Dr. Deepak Pant
2	ENV 401	Introduction to Ecology	2	NA	Dr. Mushtaq Ahmed
3	ENV 516	Atmospheric Science	2	NA	Dr. Ankit Tandon
4	ENV 553	Environmental Thermodynamics	2	NA	Dr. S. Chatterjee
5	ENV 402	Introduction to Earth Processes	2	NA	Dr. Anurag Linda
6	ENV 418	Ecology Lab	2	NA	Dr. Mushtaq Ahmed

Courses for Semester 3

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	ENV 536	Disaster Management	2	NA	Dr. A.K.Mahajan
2	ENV 412	Analytical Techniques	2	NA	Dr. Deepak Pant
3	ENV 409	Environmental Microbiology	2	NA	Dr. Mushtaq Ahmed
4	ENV 554	Environmental Conservation and Sustainable Development	4	NA	Dr. Mushtaq Ahmed
5	ENV 537	Environmental Engineering	2	NA	Dr. Ankit Tandon
6	ENV 561	Science of Climate Change	4	NA	Dr. Ankit Tandon
7	ENV 528	Nano Techniques	2	NA	Dr. S. Chatterjee

		and Environment			
8	ENV 562	Analytical Techniques (Biological Science)	2	NA	Dr. S. Chatterjee
9	ENV 535	Natural Hazards	2	NA	Dr. Anurag Linda
10	ENV 534	Green Technology and Market	2	NA	Dr. Anurag Linda
11	ENV 531	Toxicology Lab	2	NA	Dr. Deepak Pant

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	ENV 404	Energy and Environment	2	NA	Dr. Ankit Tandon
2	ENV 408	Biodiversity and Wildlife Management	2	NA	Dr. S. Chatterjee
3	ENV 522	Ecosystem Diversity	4	NA	Dr. S. Chatterjee
4	ENV 424	Fundamental of Remote sensing	2	NA	Dr. Anurag Linda

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Course Code: **ENV 402**
Course Name: **Introduction to Earth Processes**
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- To introduce the students to basics of the earth structure and its physical, chemical and biological characteristics.
- To introduce the students to various earth processes those are operating inside the earth and their role in shaping and evolution of earth.
- Introduction with the surface geological processes (weathering, erosion etc) and their use in understanding geochemical cycling of elements and their role in maintaining the earth surface temperature and associated phenomenon such.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%

3. Continuous Internal Assessment : 25% (Breakup is following)
    a. Assignment/Quiz/Term Paper: 20%
    b. Presentation/Seminar/Field work: 20%
    c. Practical: 60%

Course Contents:

Unit I **[2 hrs]**

- Earth Science as a subject and its various disciplines
- Evolution of various branches of Earth Science
- Earth as a dynamic system

Unit II **[4 hrs]**

- Different theories of origin and evolution of the earth.
- Primary differentiation and multilayer structure of Earth
- An overview on different rock types and mineral groups
- Formation of Soil

Unit III **[4 hrs]**

- Origin of magma and magmatic rocks
- Temperature, pressure and fluids inside the earth and metamorphic rocks.
- Weathering and erosion processes and their role in elemental redistribution
- Sediment transport and deposition through running water, wind and glaciers and formation of sedimentary rocks and various landforms

Unit IV **[6 hrs]**

- Theory of Plate tectonics and its implications in understanding mountain building and sea floor spreading processes
- Formation of oceans, continents and mountains
- Distribution of earthquake and volcanic activity across the globe
- Behaviour of rocks under stress; Folds, joints and faults.

Unit V **[4 hrs]**

- Hypsography of the continents and ocean floor –continental shelf, slope, rise and abyssal plains.
- Physical and chemical properties of sea water and their spatial variations.
- Ocean currents, waves and tides, important current systems, thermohaline circulation and the oceanic conveyor belt.
- Human impact on earth's environment.

1. Text Books
2. Keller E A 2010. Environmental Geology. 9th Edition, Prentice Hall, ISBN-13: 978-0321643759.
3. Duff P M and Duff D 1993. Holmes Principles of Physical Geology. 4th Edison, Stanley Thornes, ISBN 0748743812, 9780748743810.
4. Tank, R W. Environmental Geology. Oxford University Press ISBN 10: 0195032888 / ISBN 13: 9780195032888.
5. Aldiya K. S 2010. The Making Of India Geodynamic Evolution. Macmillan India Ltd, ISBN 13: 9780230328334

Reference Books

6. Press & Siever 2007: Understanding Earth W. H. Freeman and Company, ISBN: 0-7167-6682-
7. Tom Garrison 2009: Essentials of Oceanography, Fifth Edition ISBN-13: 978-0-495-55531-5,ISBN-10: 0-495-55531-2
8. Mahapatra 2009: G.B 2011. Textbook Of Geology CBS publications, **ISBN** 8123900139; **ISBN-13-**9788123900131.
9. Monroe, J S and Wicander R. The Changing Earth: Exploring Geology and Evolution. 4th edition, Brooks/Cole Publishing Co; ISBN-10: 0495010200; ISBN-13: 978-0495010203
10. Leopold L B, Wolman M G and Miller J P. Fluvial Processes in Geomorphology. Dover Publications, ISBN-10: 0486685888; ISBN-13: 978-0486685885
11. Burbank D W and Anderson R S 2000. Tectonic Geomorphology. 1st edition Wiley-Blackwell, ISBN-10: 0632043865; ISBN-13: 978-0632043866
12. Subramanian V. A Textbook in Environmental Science. Narosa Publishers, ISBN13:978-0849324086.
13. Valdiya K S. Environmental Geology, Indian Context. **Tata McGraw-Hill Pub Co.** ISBN 10: **0074519719 / 0-07-451971-9;**ISBN 13: **9780074519714**
14. Kumar R 1985. Fundamentals Of Historical Geology And Stratigraphy Of India. Wiley Eastern, ISBN 0852267452, 9780852267455.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: ENV 534
Course Name: Green Technologies and Market

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Introduce green concepts for reducing environmental degradation
- Make students aware of different environmental friendly technologies that will help the nation to prosper both socio – economically in a sustainable way.
- Explore market prospect for environmental friendly products

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25% (Breakup is following)
    a. Assignment/Quiz/Term Paper: 20%
    b. Presentation/Seminar/Field work: 20%
    c. Practical: 60%

Course Contents:

UNIT I **4 hrs**

Introduction: Background, Green Technology Initiative, Strengths for adopting Green Technology, Challenges for Green Technology Adoptions, Public Incentives and Market Drivers for Green Technology

UNIT II **4 hrs**

Different Sectors of Green Technology and Market: Agriculture, Organic Agriculture, Energy Efficient Irrigation Systems; Energy: Wind Power, Solar Energy, Biomass, Geothermal, Fuel Cells, Energy Storage, Smart Grids

UNIT III **4 hrs**

Water and waste management: Recycling Technology, Sewage treatment and solid waste management, Water purification,

UNIT IV **4 hrs**

Transportation: Rail Transport, Electric Vehicle, Efficient Diesel/ Petrol Engines

UNIT V **4 hrs**

Green Buildings: Sustainable building material, Green Building Standards and Practices.

Suggested Readings:

1. **John Coad,** (2011): Green Technology, Raintree, ISBN: 9781410942814.
2. **Sage Publications,** (2011): Green Technology: An A-To-Z Guide, The Sage Reference Series on Green Society: Toward a Sustainable Future, ISBN: 9781412996921.
3. **Alexis Madrigal,** (2011): Powering the Dream: The History and Promise of Green Technology, Da Capo Press, ISBN: 9780306818851.
   Springer 2011: Green It: Technologies and Applications, ISBN: 9783642221781

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: **ENV 424**
Course Name: **Fundamentals of Remote Sensing**
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Introduce the basics of Remote Sensing
- cover its various components and the use of remote sensing to address various environmental issues and management of natural resources

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25% (Breakup is following)
    a. Assignment/Quiz/Term Paper: 20%
    b. Presentation/Seminar/Field work: 20%
    c. Practical: 60%

Course Contents:

UNIT I **4 hrs**

What is Remote Sensing, Electromagnetic Radiation, Electromagnetic Spectrum, Interactions with the Atmosphere, Radiation – Target, Passive vs. Active Sensing, Characteristics of Images

UNIT II **4 hrs**

Sensors on the Ground, in the air, in Space, Satellite Characteristics, Pixel Size and Scale, Different Resolutions, Cameras and Aerial Photography, Different Satellites, Other Sensors

UNIT III **4 hrs**

Radar Basic, Viewing Geometry & Spatial Resolution, Airborne vs Spaceborne Radars, Airborne & Spaceborne Radar Systems

UNIT IV **4 hrs**

Image Analysis: Visual interpretation, Digital processing, Preprocessing, Enhancement, Transformations, Classification, Integration

UNIT V **4 hrs**

Applications: Agriculture, Glaciology, Forestry, Geology, Hydrology, Sea Ice, Land Cover, Biomass Mapping, Oceans & Coastal

Suggested Readings:

1. **Lillesand & Keifer**, (2011): Remote Sensing & Image Interpretation, **John Wiley & Sons**, ISBN: 9788126532230.
2. **James B.Campbell**,(2007): Introduction to Remote Sensing, **Taylor & Francis,** ISBN: 9780415416887.
3. J**.R.Jensen,** (2009): Remote Sensing of the Environment, **Pearsons education Pub.** ISBN: 9788131716809.
4. **George Joseph,** (2005): Fundamental of Remote Sensing, **University Press, India**, ISBN: 9788173715358.
5. **Bruce Grubbs,** (2005): Basic Essentials Using GPS, **Falcon Press Publishing,** ISBN: 9780762734214.

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Course Code: ENV 535
Course Name: Natural Hazards
Credit Equivalent: 2 Credits (1 Credit is equivalent to 10 hours of theory (Classroom activity) and 5 hours of practical (Laboratory work).

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Introduce the students to various kinds of Natural Hazards
- Students will be familiarized with causes of different Natural Hazards
- Students will also be exposed to region specific Natural Hazards
- Students will learn about occurrences of Natural Hazards in Indian perspective

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%

(Depending upon the nature of the course, a teacher shall specify the breakup of each criterion into different components like written examination, assignment, field study, seminar/ presentation, class participation, problem solving exercises, practicals etc.)

Course Contents

UNIT I **(2 Hours)**

- Definition and Classification of Hazards
- Phases of a Hazard/Disaster
- Effects of Hazards
- Prevention, Mitigation and Preparedness

UNIT II **(4 Hours)**

- Atmospheric Hazards
  - Tropical Cyclones
  - Tornadoes
  - Blizzards
  - Hail Storms
  - Severe Thunderstorms
  - Extreme Temperatures

UNIT III **(6 Hours)**

- Geologic Hazards
  - Earthquakes
  - Volcanic Eruptions
  - Tsunami
  - Landslides
  - Subsidence
  - Mass-movement
  - Mudslides
  - Avalanches
  - Impacts with space objects

UNIT IV **(4 Hours)**

- Hydrologic Hazards
  - Floods
  - Wave action
  - Drought
  - Rapid glacier advance & Retreat

UNIT V **(4 Hours)**

- Other Hazards
  - Biological
  - Technological
  - Wild Fire

Prescribed Text Books:

1. **Tarbuck E. J. and Lutgens F. K.** (1996). **An introduction to Physical Geology.** Prentice Hall, New Jersey; ISBN 0-13-371584-1
2. **Kumar K.** (1998). Course Material of "Foundation **Course in Disaster Management**" of School of Social Sciences - **Indira Gandhi National Open University; ISBN 81-7605-236-X to ISBN 81-7605-248- X**
3. **Valdiya K. S.** (1987). **Environmental Geology (Indian Context).** Tata-McGraw-Hill, New Delhi

Reference Books

1. **Edward Bryant** (2005). Natural Hazards, Cambridge University Press
2. **Coates Donald R.** (1985). Geology and Society. Chapman and Hall, NY
3. **Keller Edward A.** (1996). Environmental Geology. Prentice-Hall, NJ
4. **Valdiya K. S**. (2001). Geology, Environment and Society. University Press, Hyderabad

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: ENV 401
Course Name: Introduction to Ecology

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Enable students to know about and understand the basic principles of Ecology and Environment.
- The students will acquire knowledge to investigate the functional and structural aspects of different ecosystems.
- Enable students to analyze the concepts related to the establishment of ecological balance in nature.
- Enhance our understanding of the ecosystem management strategies that are key to achieve environmental sustainability.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
   a. Assignment: 10%
   b. Class Test: 5%

c. Presentation: 10%
(presentation/assignment/quiz/seminar/class test/attendance etc.) (to be decided by the teacher)

COURSE CONTENT

UNIT (I): SCOPE AND INTRODUCTION **4 hrs**

Ecology- Scope, Subdivisions, major landmarks in Ecology, levels of organization hierarchy; Organisms and Environment-Holocoenotic nature of environment; biotic and abiotic environment.

UNIT (II): POPULATION ECOLOGY **4 hrs**

Population characteristics; population growth; carrying capacity; population regulation; life history strategies (r and k selection).

UNIT (III): COMMUNITY ECOLOGY **5 hrs**

Concepts of community and continuum; community attributes; species diversity α, β and ϒ); concept of ecological niche- types, ecotone & edge effect.

UNIT (IV): COMMUNITY DEVELOPMENT **3 hrs**

Ecological succession; changes in ecosystem properties during succession; concept of climax.

UNIT (V): ECOSYSTEM ORGANIZATION AND MANAGEMENT **4 hrs**

Ecosystem structure and functions; primary production (methods of measurement, global pattern, controlling factors); energy dynamics (tropic organization; energy flow pathways; Ecosystem management- concepts, sustainable development.

Textbooks

1. FUNDAMENTALs OF ECLOGY – Eugene P Odum and Gary W Barrett; ISBN: 978-81-315-0020-0. (Available with PANIMA BOOK DISTRIBUTORS, New Delhi).
2. Ecological Diversty and its measurements – Anne E. magurran, 2003. Blackwell Publications.
3. Ecology, Environment & Resource Conservation- J.S. Singh, S.P. Singh and S. R. gupta, 2008. Anamaya Publications, New Delhi.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: ENV 409
Course Name: Environmental Microbiology

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Enable students to know and understand the role of beneficial microorganisms in the environment to benefit society.
- The students will acquire knowledge to investigate microbial diversity existing in different habitats in the natural ecosystems for mining and exploiting for novel natural products as well as for remediation of organic and inorganic contaminants in the environment.
- Evaluate the microbial communication, activities and interactions with their environment and their impact on ecosystem stability.
- Search for new microbes in extreme environments that may be useful for the discovery of high value "green" products that can be used in medicine, agriculture and industry.
- Enhance our understanding of the microbial communities in order to achieve environmental stability

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
   a. Assignment: 10%
   b. Class Test: 5%
   c. Presentation: 10%
   (presentation/assignment/quiz/seminar/class test/attendance etc.) (to be decided by the teacher)

Course Contents:

UNIT (I) **3 hrs**

1. Introduction to microorganisms: General characteristics, nutritional types, microbial diversity.
2. Historical perspective and scope of Environmental Microbiology.
3. A brief idea of techniques relating to isolation, purification and culture of microorganisms.

UNIT (II) **4 hrs**

1. Microbial habitat: Brief account of microbial diversity in soil, aquatic and aerial environments
2. Microbes in extreme environments.

UNIT (III) **6 hrs**

1. Microbial communication: Bacteria-bacteria and bacteria-host
2. Types of interaction between plants and microbes
3. Role of soil microorganisms in sustainable agriculture

UNIT (IV) **3 hrs**

1. Microbes and public health: Global change and microbial infectious diseases
2. Microorganisms and bioterrorism: Microbial agents of concern as weapons of Bioterrorism, Bioterrorism- potable water and agriculture.

UNIT (V) **4 hrs**

1. Microbially induced corrosions and biofilms
2. Bioremediation of organic and metal contaminants: Biodegradation of organic pollutants- aliphatics, alicyclics, aromatics, dioxins and PCBs, Heterocyclic compounds, pesticides;
3. A brief account of metal pollutants: Microbial metal transformations- oxidation-reduction, methylation, physicochemical methods of metal remediation, approaches in the remediation of metal contaminated soils, sedimentsand aquatic systems.

Textbooks

1. Environmental Microbiology, Raina M. Maier, Ian L. Pepper, Charles P. Gerba, 2009. (2nd Edition), Academic Press.
2. Environmental Microbiology Alan H. Varnam & Malcolm G. Evans; Publisher-Manson Publiushing Ltd. 73 Corringham Road London NW 11 7DL, UK.

Reference Books

1. Prescott, Harley and Klein's 2008. Microbiology (seventh edition), McGraw Hill
2. Larry L. Barton, Diana E. Northup, 2011. Microbial Ecology, Wiley-Blackwell A John Wiley and Sons INC., Publications
3. G. Bitton, 2005,Wastewater Microbiology (3rd Edition), John Wiley and Sons
4. Text Book of Environmental Microbiology, Pradipta K. Mohapatra; Publisher: I.K. International Publishing House Pvt. Ltd. S-25, Green Park Extension Uphaar Cinema Market, New Delhi- 110016
5. P. D. Sharma, 2011. Microbiology (2rd Edition), rastogi Publications

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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COURSE CODE: ENV 408

COURSE NAME: Biodiversity and wildlife management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- The course is designed to enable students to understand the role of biodiversity in ecosystem functioning.
- The students will acquire knowledge about various threats posed to biodiversity in the current scenario.
- The students will have analysis of different strategies required for the conservation of biodiversity.
- Wildlife being a natural resource and the one with which man has been ever interacting; the students will get themselves equipped with updated knowledge of current management practices used for wildlife management.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25% (Breakup is following)
   a. Class test : 40%
   b. Presentation: 40%
   c. Assignment: 20%

COURSE CONTENTS:

UNIT (I): Introduction to biodiversity **5 hrs**

Ecosystems, Biomes, Biodiversity hotspots and their characteristic flora and fauna; Economic value of biodiversity. Levels of Biodiversity: Community diversity (alpha, beta and gamma biodiversity), Gradients of Biodiversity (latitudinal, insular), Ecosystems diversity: biomes, mangroves, coral reefs, wetlands and terrestrial diversity (equilibrium mix of *G* and W). Microbial diversity, Plant diversity, Agro biodiversity.

UNIT (II): Biodiversity magnitude and distribution **4 hrs**

Species diversity: richness and evenness, loss of species. Magnitude of biodiversity (Global and Indian data). Direct and indirect benefits, Bioprospecting; Genetic diversity; Mapping of biodiversity.

UNIT (III): Threats to biodiversity **4 hrs**

Threats to Biodiversity: Habitat loss and fragmentation; Disturbance and pollution; introduction of exotic species; extinction of species; Threatened plants and animals of India. IUCN threat categories, Red data book, Invasions- causes and effect.

UNIT (IV): Wildlife and its management **4 hrs**

Significance of wildlife, Important wildlife species in different sub regions of India, Endangered Plant species of Himalayas, Causes of wildlife resource depletion in India, Important National Parks, Wildlife Sanctuaries and Biosphere reserves in India.

UNIT (V): Conservation of biodiversity **3 hrs**

Principles and strategies; in-situ and ex-situ conservation, Protected Area Network.

Textbooks

1. Ecology and Environment-P.D. Sharma, 2011 Eleventh Revised Edition
2. Wildlife Biology: R. F. Dasman (1982), Pub. Wiley Eastern Lrd NDL.
3. Wildlife Management Techniques: R. H. Giles (ed.) (1980), Pub. Natural Publ. Dehradun.
4. Textbook of Environmental Studies: Deeksha Dave and S.S. Katewa (2012). Cengage Learning India Pvt. Ltd.

Suggested readings:

1. Ecological Diversity and its measurements – Anne E. Magurran, 2003. Blackwell Publications.
2. Global Biodiversity Assessment: WRI, IUCN & UNEP- Huntley, B. 1995., Cambridge University Press
3. Ecology and Environment-P.D. Sharma, 2011 Eleventh Revised Edition
4. Ecology, Environment & Resource Conservation- J.S. Singh, S.P. Singh and S. R. Gupta, 2008
5. Wildlife Biology: R. F. Dasman (1982), Pub. Wiley Eastern Lrd NDL.
6. Wildlife Management Techniques: R. H. Giles (ed.) (1980), Pub. Natural Publ. Dehradun.
7. Environment Concerns and Strategies: T. N. Khushoo, Ashish Pub. House, NDL.
8. Ecology and Quality of Environment: C. H. Southwick Dnon Nastrand (1976), New York.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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COURSE CODE: ENV 553

COURSE NAME: Environmental Thermodynamics

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- The most important contribution of thermodynamics is in determining whether a given conceivable process is possible or not. Thermodynamics answers this question by making use of its famous first and second laws. Students will acquire knowledge about Thermodynamics equations related to these laws and their application.

- Environmental thermodynamics is concerned with energy conversions and flows. It is concerned with the interactions of technology and the natural world. Unlike industrial thermodynamics, it does not stop with the evaluation of inputs and outputs of useful work energy and products, but follows these products and accompanying waste through all the devious paths and interactions in the biosphere, its organisms and humankind itself. Student will apply this concept for solving environmental issues.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25% (Breakup is following)
   a. Class test : 40%
   b. Assignment: 40%
   c. Presentation: 20%

COURSE CONTENTS:

UNIT (I): Introduction to Thermodynamics **4 hrs**

Fundamental Concept: Thermodynamic terms, Thermodynamic variables, Thermodynamic Process, Laws of Thermodynamics, State of equilibrium, Thermodynamic functions, state functions (with differential equations).

UNIT (II): The First Law of Thermodynamics **5 hrs**

The energy concept, Physical significance of internal energy, work done in a system, path function, Heat capacities, Enthalpy, Important thermodynamic relations based on first law of Thermodynamics, calculations of Thermodynamic quantities.

UNIT (III): The second Law of Thermodynamics **5 hrs**

Relevance of the Second Law, Carnot's cycle, Concept of Entropy, Combined form of First and Second Laws of Thermodynamics, Thermodynamic relations based on Second Law, Calculation of entropy changes, Entropy changes for isolated system.

UNIT (IV): Third Law of Thermodynamics **3 hrs**

Third law of Thermodynamics and evaluation of absolute energy, Concept of residual entropy, entropy at equilibrium.

UNIT (V): Application of Thermodynamics **3 hrs**

Problem solving

Textbooks

1. An introduction to Chemical Thermodynamics: R.P. Rastogi and R.R. Misra. Vikas publishing House Pvt Ltd, India
2. Physical Chemistry: Revised And Enlarged (7th Edition): P.C. Rakshit. Sarat Book Distributors.
3. Physical Chemistry (5th Edition): W.J. Moore. Orient Blackswan.

Suggested readings:

1. http://www.freebookcentre.net/Physics/ThermoDynamics-Books.htmlGlobal
2. http://www.kepu.dicp.ac.cn/photo/07sl02/CH-Physical%20Chemistry%288th%20ed%29%5B%E8%8B%B1%E8%AF%AD%5DAtkins.pdf
3. Molecular Thermodynamics by Donald A. Mcquarrie & John D. Simon.

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COURSE CODE: ENV 562

COURSE NAME: Analytical Techniques (Biological Science)

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Analytical Techniques in biological Science is the most important subject to pursue biotechnology research. In this course student will learn the basic and advance techniques which are frequently used to identify and purify bioactive molecules/metabolic pathway molecules (mostly secondary metabolites).

- The course includes some hands-on experience related to the advance techniques used in biological research.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25% (Breakup is following)
   a. Class test : 40%
   b. Assignment: 40%
   c. Presentation: 20%

COURSE CONTENTS:

UNIT (I): Introduction to Chromatography **5 hrs**

Basic principle of Analytical techniques. Different types of Chromatography techniques and their applications. Thin layer Chromatography – Basic principle, methodology, application.

UNIT (II): High Performance Liquid Chromatography **6 hrs**

Basic Principle, Methodology, Application. Discussion with examples based on published research papers.

UNIT (III): Gas Chromatography **4 hrs**

Basic Principle, Methodology, Application. Discussion with examples based on published research papers.

UNIT (IV): Liquid and Gas Chromatography - Mass spectrometry **5 hrs**

Basic Principle, Methodology, Application. Discussion with examples based on published research papers.

Suggested readings:

1. Handbook of HPLC. Danilo Corradini, Elena Eksteen (Katz), Roy Eksteen, Peter Schoenmakers, Neil Miller. CRC Press. [http://books.google.co.in/books/about/Handbook_of_HPLC.html?id=4mj_DArD5n0C]
2. Introduction to Modern Liquid Chromatography, 3rd Ed. Lloyd R. Snyder, Joseph J. Kirkland, and John W. Dolan. ISBN-13: 978-0470167540. [http://www.lcresources.com/resources/resbooks.html]

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Course Code: ENV 516
Course Name: Atmospheric Science

Credit Equivalent: 2 Credits

Vision

Atmospheric science is an applied discipline that is concerned with the structure and evolution of the Earth's atmosphere and with the wide range of phenomena that occur within them. Atmospheric science represents a particular fusion of elements of physics and chemistry. This course will serve to introduce the student to the fundamental principles upon which the atmospheric processes are based and to provide an elementary description and interpretation of the wide range of atmospheric phenomena.

Atmospheric science is a multifaceted subject dealing with several disciplines such as oceanography, meteorology, geology, biology, chemistry, physics and other disciplines to understand Atmospheric processes as an integrated system. An increasing number of scientists are devoting their research to understand the earth processes to address the issues like global warming, sea-level rise, climate change and so on. As all these above mentioned issues are of global significance and in a way or other are linked to the earth system sciences, a sound knowledge (material, processes and their interaction) of the subject would certainly help in developing strategies to meet these challenges.

Objectives

1. The Earth's Atmosphere- an overview
2. Understanding physical structure and chemical composition of the Earth's Atmosphere
3. Understanding the fundamental physical and chemical processes responsible for the mass and energy transport in the Earth's Atmosphere

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 percent attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

Mid-term Examination: 25%

End-term Examination: 50%

Continuous Internal Assessment: 25%

Course contents

Unit 1: Vertical Structure and Composition (4 Hours)

- Chemical Composition
- The State of the Atmosphere
- Atmospheric Density and Pressure
- Hydrostatic Balance

Unit 2: Atmospheric Thermodynamics (4 Hours)

- The Ideal Gas Law and First Law of Thermodynamics
- Concept of Air Parcel and Lapse Rates
- Atmospheric Stability
- Mixing Height and Inversion

Unit 3: Atmospheric Energy Balance (4 Hours)

- Electromagnetic Radiations, Black Body Radiation
- The Solar Constant and the Budget of Solar Radiation
- Terrestrial Radiation, The Earth's Radiative Energy Balance
- Green House Effect

Unit 4: Atmospheric Chemistry (4 Hours)

- Thermo-chemical and Photo-chemical Reactions
- Chemistry of Stratosphere, Stratospheric Ozone Depletion
- Chemistry of Troposphere, Acid Rain
- Atmospheric Aerosols, Atmospheric Trace Gases

Unit 5: Atmospheric Dynamics (4 Hours)

- Pressure Belts and Winds
- Pressure Gradient Force
- Coriolis Force, Centrifugal Force, Frication,
- Global Circulation

Suggested Readings:

1. **Murry L. Salby** (2012): Physics of the Atmosphere and Climate, **Cambridge University Press**, ISBN: 978-0521767187
2. **Kevin E. Trenberth** (2010): Climate System Modeling, **Cambridge University Press**, ISBN: 978-0521128377
3. **Wallace John M. Jr., Peter V. Hobbs** (2006): Atmospheric Science: An Introductory Survey, 2nd Edition, **Academic Press**, ISBN: 978-0127329512
4. **John Green** (2011): Atmospheric Dynamics, **Cambridge University Press,** ISBN: 978-0521249751
5. **Frederick K. Lutgens, Edward J. Tarbuck** (2010)**:** The Atmosphere: An Introduction To Meteorology, **Phi (Prentice-hall New Arrivals)**, ISBN: 978-8120344150
6. **Mark Z. Jacobson** (2005): Fundamentals of Atmospheric Modeling, **Cambridge University Press,** ISBN: 978-0521548656
7. **John H. Seinfeld, Spyros N. Pandis** (2006)**:** Atmospheric Chemistry and Physics, **John Wiley & Sons Inc.,** ISBN: 978-0-471-72018-8
8. **Barbara J. Finlayson-Pitts, Pitts James N. JR., James N. Pitts Jr. (**1999)**:** Chemistry of the Upper and Lower Atmosphere: Theory, Experiments, and Applications, **Academic Press** ISBN: 978-0122570605

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Course Code: ENV 537
Course Name: Environmental Engineering
Credit Equivalent: 2 Credits

Vision

Environmental engineering encompasses the scientific assessment and development of engineering solutions to environmental problems affecting land, water, and air (the biosphere). The field embraces broad environmental concerns, including the safety of drinking water, groundwater protection and remediation, wastewater treatment, indoor and outdoor air pollution, solid and hazardous waste disposal, cleanup of contaminated sites, the prevention of pollution through product and process design, and strategies for sustainable water and energy use and production.

Objectives

An Introduction to Mass and energy transfer concepts applied to major environmental issues: safe drinking water, surface water quality, ambient air quality, global atmosphere, managing solid and hazardous wastes.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 percent attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

Mid-term Examination: 25%

End-term Examination: 50%

Continuous Internal Assessment: 25%

Course Contents

UNIT-I: Mass and Energy Transfer (4 Hours)

- Concentrations and other units of measure
- Material Balance
- Thermodynamics
- Chemical Equilibrium

UNIT-II: Air, Water and Their Impurities (4 Hours)

- Air and the Atmosphere
- Water and the Hydrosphere
- Water Pollutants
- Air Pollutants

UNIT-III: Air Quality Engineering (4 Hours)

- Air Pollutant Emissions and Controls
  - ✓ Pollutant generation by combustion
  - ✓ Motor vehicle emissions
- Treatment Technologies
  - ✓ Particle control devices
  - ✓ Absorption for gaseous pollutant

UNIT-IV: Water Quality Engineering (4 Hours)

- Water Quality Regulations and Treatment Systems
- Physical Treatment Methods
- Chemical and Physicochemical Treatment Methods
- Biological Waste Water Treatment

UNIT-V: Global Climate Change and Geo-engineering (4 Hours)

- Green House Effect, Radiative Forcing, Global warming Potential
- Global Energy Balance, Global Warming
- Climate Change
- Mitigation Strategies, Geo-engineering

Suggested Readings:

1. **William W Nazaroff, Lisa Alvarez-Cohen** (2001): Environmental Engineering Science, **Wiley,** ISBN: 978-8126524501
2. **Gilbert M. Masters, Wendell P. Ela** (2008): Introduction to Environmental Engineering and Science, **PHI Learning,** ISBN: 978-8120336919
3. **P. Venugopala Rao** (2004): Textbook of Environmental Engineering, **Phi Learning**, ISBN: 978-8120319301
4. **David A. Cornwell, Mackenzie L. Davis** (2010): Introduction to Environmental Engineering, **Tata McGraw-Hill Education,** ISBN: 978-0070671171
5. **Gerard Kiely** (1997): Environmental Engineering, **Tata McGraw-Hill Education,** ISBN: 978-0070634299
6. **Arcadio P. Sincero, Gregoria A. Sincero** (2002): Environmental Engineering, **Phi Learning,** ISBN: 978-8120314740
7. **K. N. Duggal** (2008): Elements of Environmental Engineering, **S. Chand Publishing,** ISBN: 978-8121915472
8. **N. Basak** (2003): Environmental Engineering **Tata Mcgraw Hill Education,** ISBN: 978-0070494633

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Course Code: ENV 561
Course Name: Science of Climate Change

Credit Equivalent: 2 Credits

Course Objectives: The course is designed to impart students an extended understanding of Climate Change and the Science behind the processes and factors responsible for the Earth's Climate Change.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%

Break up of Continuous Internal Assessment:

Quiz 1: Before Mid-Semester Examinations: 7.5%

Quiz 2: After Mid-Semester Examination: 7.5%

Assignment & Presentation: Before End-Term Examination: 5% + 5%

Course Contents

UINT 1 The Climate System: an overview [8 Hours]

a) The Driving Forces of Climate
b) Anthropogenic Climate Change
c) Climatic Response

d) Observed Climate Change

e) Prediction and Modelling of Climate Change

UNIT 2 Human and Natural Drivers of Climate Change [8 Hours]

a) Solar Variability

b) Green House Effect

c) Radiative Forcing

d) Climate Sensitivity

e) Relative Radiative Forcing Indices

UNIT 3 Radiative Forcing [8 Hours]

a) Greenhouse gases

   I. Halocarbon radiative forcing

   II. Radiative forcing due to stratospheric ozone changes

b) Tropospheric Aerosols

   I. Direct forcing due to sulphate aerosols resulting from fossil fuel emissions and smelting

   II. Soot aerosols

   III. Other aerosol types and sources

   IV. Effect of aerosols on cloud properties

c) Stratospheric Aerosols

UNIT 4 Observations of Changes in Climate [8 Hours]

a) Atmospheric Changes: Instrumental Record

b) Changes in the Ocean: Instrumental Record

c) Changes in the Cryosphere: Instrumental Record

d) A Palaeoclimatic Perspective

e) Extreme Weather Events, Orbital Forcing

UNIT 5 Projections of Future Changes in Climate [8 Hours]

a) Hierarchy of Global Climate Models
b) Understanding Near-Term Climate Change
c) Large-Scale Projections
d) Regional-Scale Projections
e) Implications of Climate Processes and their Time Scales for Long-Term Projections

Text Books:

1. Intergovernmental Panel on Climate Change (1995), Climate Change 1995: The Science of Climate Change, Edited by J.T. Houghton, L.G. Meira Filho, B.A. Callander, N. Harris, A. Kattenberg and K. Maskell, Cambridge University Press, ISBN: 0 521 56436 0
2. Intergovernmental Panel On Climate Change (2007), Specifications of Climate Change 2007 - The Physical Science Basis, Cambridge University Press, ISBN: 9780521705967

Additional Readings:

1. John H. Seinfeld, Spyros N. Pandis: Atmospheric Chemistry and Physics, John Wiley & Sons, Inc., ISBN: 978-0-471-72018-8

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: ENV 536
Course Name: Disaster Management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Understand different natural and manmade disasters
- Explore the reason of its origin and the possible antidotes so that it can dwindle to some extent.
- Implement environmentally sound strategies in this concern

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25% (Breakup is following)
    a. Assignment/Quiz/Term Paper: 20%
    b. Presentation/Seminar/Field work: 20%
    c. Practical: 60%

Course Contents:

Unit-1: **4 hrs**

- **Introduction to Disaster Management**
- Farmer curve showing significance and frequency of different natural disaster
- Scope and Objectives of Disaster Management
- Disaster Managers
- Elements of Disaster Management

Assignement-1 To prepare historical archive of Cyclone for last 20 years and their disastrous effects
Assignement-2 To prepare historical archive of Flood disaster in India for the last fifty years and their disastrous effect

Unit 2: **4 hrs**

- Concepts and Terms in Disaster Management
- Natural Disasters
- Man-made Disasters
- Disaster Victim
- Disaster Relief Systems
- Phases of Disaster Response
- Phases of Relief Operations
- Case study of Kashmir Flood 2014.

Assignment -3 list different earthquake of Himalayan region with their magnitude and explain the disastrous effect of 1905 Kangra earthquake

Unit-3 The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters: Case *study of earthquake disaster and landslide disaster*
4 hrs

Assignement-4 Write down about Yokahama strategy and plan of action for the safer world

Unit-4 **4 hrs**

- **The Tools and Methods of Disaster Management**
- Prevention and Mitigation Tools
- Preparedness Tools
- Tools of Post-Disaster Management
- Case studies

Assignment -5: write down different methods to be used for mitigation of landslide and earthquake disaster as a preparedness part of disaster management cycle.

Unit-5 **4 hrs**

- **Technologies of Disaster Management**
- Mapping
- Aerial Photography and Remote Sensing
- Communications
- Information Management
- Logistics
- Epidemiology

Suggested Readings:

Material prepared by teachers and the following reference will be useful

1. **Harsh K. Gupta**, (2004): Disaster management, **Universities Press**, ISBN: 9788173714566
2. **R.B. Singh,** (2000): Disaster Management, **Rawat Publication**, New Delhi.
3. **H.K. Gupta** (2003): Disaster Management, **Universities Press, India**, ISBN: 9788173714566
4. **Satender,** (2003): Disaster Management in Hills, **Concept Publishing Co., New Delhi,** ISBN: 9788180690143
5. **Bhandani, R.K.,** (2000): An overview on Natural & Manmade Disaster & their Reduction, **CSIR, New Delhi.**

Gupta, (2001): Manuals on Natural Disaster management in India, National Centre for Disaster Management, IIPA, New Delhi, 2001

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Course Code: **ENV-403**
Course Name: **Environmental Chemistry**

Credit Equivalent: 4 credits

Course Objectives: The course is designed to:

1. introduce students to the fundamental concepts of analytical techniques environmental chemistry;
2. provide knowledge about various kinds of quantitative techniques;
3. introduce about computation of analytical results, significant figures, concept of error, precision and accuracy, standard deviation, rejection of doubtful values.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 per cent attendance is a must failing which a student may not be permitted to appear in examination**.**

Evaluation Criteria:

1. Mid Term Examination : 25 %
2. End Term Examination : 50 %
3. Continuous Internal Assessment : 25 %

(Depending upon the nature of the course , a teacher shall specify the breakup of each criterion into different components like written examination , assignment , case study , quiz , presentation , class participation , panel discussion , group discussion, problem solving exercise s, practical , etc.)

UNIT I: **(12 Lectures)**

Stochiometry, Gibbs' energy, chemical Potential, chemical equilibrium acid base reactions, Solubility product, solubility of gases in water, the carbonate system, Unsaturated and saturated hydrocarbons, radio nuclides.

UNIT II: **(8 Lectures)**

Chemical compositions of Air: Classification of elements, chemical speciation, Particles, Ions and radicals in atmosphere, chemical processes for formation of inorganic and organic particulate matter, thermo chemical and photochemical reaction in atmosphere Oxygen and Ozone chemistry, chemistry of air pollutants, photochemical smog.

UNIT III: **(4 Lectures)**

Water Chemistry: Chemistry of water, Concept of DO, BOD, COD, Sedimentation coagulation, filtration , redox potential.

UNIT IV: **(4 Lectures)**

Soil Chemistry: Inorganic and organic components of soil, Nitrogen pathways and NPK in soils.

UNIT IV: **(12 Lectures)**

Main and transition metals Chemistry, Metal- Ligand concept and its implication towards biochemistry of metals.

Prescribed Text Books:

1. Manahan, Stanley E. "FRONTMATTER"*Environmental Chemistry* Boca Raton: CRC Press LLC, 2000.
2. A K De Environmental Chemistry 4th Edition, New Age International (P) Ltd., New Delhi 110 002.
3. J. E. Girard, Principal of Environmental Chemistry (II Edition) Jones and Bartlett Learning, Delhi 110 002; ISBN 978-93-80108-12-4.
4. Siegfried H ubener, Encyclopedia of Inorganic Chemistry (3ed,AP) Forschungszentrum Rossendorf; ISBN 128-53-80108-11-0.

Suggested Additional Readings:

1. Jayaraman, J., Laboratory Manual in Biochemistry, New Age International (P) Limited.
2. Puri Sharma & Kalia, Principles of Inorganic Chemistry, S. Chand and company, N Delhi.
3. Keith Bucher, Global Climate, Wiley, New York 1976.
4. J. Heichlen, Atmospheric Chemistry, Academic Press, New York 1976.
5. Levin, Aerosol pollution impact on precipitation. New York Springer, 2009.
6. Rao,M N Air pollution, New Delhi: TMH, 2010.
7. Bali, J.S Bioindustrial watershed management. New Delhi: JCS, 2005.
8. Marcos,Ronand Biological waste water treatment in warm climate regions.London: IWA, 2006.
9. Rogers,J. Environment and water resources.USA: ASCE, 2007.
10. Manahan,Stanley Environmental chemistry. Boca Raton: CRC, 2010.
11. O'neill, Environmental chemistry.-- London: Blackie, 2009.
12. Srivastava,Manish Environmental chemistry.-- Delhi: Sree, 2009.
13. *Vanloon,Gary Environmental chemistry.-- New York: Oxford, 2009.*
    Vanloon,Gary W, Environmental chemistry.-- New York: Oxford, 2010.

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Course Code: ENV531

Course Name: Toxicology Lab

Credit Equivalent: 2 Credits

The course is designed to introduce practical exposure:

a. about the identification of toxic waste;
b. management techniques for toxic waste.

Course content:

1. Experiment based on physical properties of toxic waste on the basis of vapour pressure, Vapour density and solubility.
2. Identification of toxic substances in food sample. It includes the identification of
   Acids,
   Aldehydes,
   Amines,
   Dioxins,
   Ethers,
   Cyanides
3. Toxicity issue related with
   Arsenic,
   Cadmium,
   Lead,
   Mercury,
   Carbon monoxide,

Prescribed Text Books:

1. Patnaik P., A Comprehensive Guide to the Hazardous Properties of Chemical Substances (III Ed.) John Wiley & Sons, Inc., Hoboken, New Jersey
2. Moffatt H K and Shuckburgh, Environmental Hazards, Imperial College Press.(ISBN 978-981-4313-28-5)

Suggested Additional Readings:

1. Batty LC and Hallberg K B, Ecology of Industrial Pollution , Cambridge University press, New Delhi.
2. Oloman C, Material and Energy Balance for Engineers and Environmentalist, Imperial College Press.(ISBN 978-1-84816-368-3).
3. Yen T F, Chemical Processes for Environmental Engineering, Imperial College Press.(ISBN 978-1-86094-759-9).
4. Madu C N, Environmental Planning and management, Imperial College Press.(ISBN 978-1-86094-671-4).
5. Healtth Hazards of Environmental Arsenic Poisoning, Imperial College Press.(ISBN 978-981-4291-81-1).

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Course Code: ENV 418

Course Name: Ecology Lab

Credit Equivalent: 2 Credits

Course content: Ecology Lab will be based on the theory course namely, Introduction to Ecology (ENV. 401).

School of Education

Department of Teacher Education

School of Education

Name of the Department**: Department of Teacher Education**
Name of the Programme of Study**: MA (Education)**

Courses for Semester 1

Sr. No.	Course Code	Course Name	Credits	Code No. Of Pre-requisite/Co-requisites if any	Teacher
1.	TTR 401	Basics of Education & Philosophy	2	NA	Dr. Navneet Sharma
2.	TTR 403	Basics of Sociology	2	NA	Ms. Prakrati Bhargava
3.	TTR 405	Psychological Foundation of Education	2	NA	Dr. Anu G.S. & Ms. Renu Bhandari
4.	TTR 406	Research Methods and Statistics in Education	2	NA	Dr. Arbind K Jha & Dr. Anu G.S.
5.	TTR 412	ICT in Education	2	NA	Dr. Manoj K Saxena
6.	TTR 423	Field Work Practicum – I	2	NA	All Faculty

Courses for Semester 3

Sr. No.	Course Code	Course Name	Credits	Code No. Of Pre-requisite/Co-requisites if any	Teacher
1.	TTR 603	Politics & Economics of Education	4	NA	Dr. Navneet Sharma & Ms. Prakrati Bhargava
2.	TTR 606	Quantitative Research in Education	4	NA	Dr. Manoj K Saxena
3.	TTR 612	Curriculum Development	2	NA	Dr. Arbind K Jha & Dr. Anu G.S.
4.	TTR 427	Inclusive Education : Equity & Diversity	2	NA	Ms. Renu Bhandari

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. Of Pre-requisite/ Co-requisites if any	Teacher
1.	TTR 433	Commerce Education	4	NA	Dr. Manoj K. Saxena
2.	TTR414	Education for Values and Human Rights	4	NA	Dr. Navneet Sharma
3.	TTR 436	Science Education	4	NA	Ms Prakrati Bhargava
4.	TTR415	Environmental Education	2	NA	Ms Renu Bhandari
5.	TTR411	Education of Children with Special Needs	4	NA	Ms. Renu Bhandari

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTR 402

Course Name: Philosophical Foundations of Education

Credits Equivalent:2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: on completion of the course, the student will be able to:

- To develop capability and capacity to reflect upon Education - Theory and Praxis philosophically.
- To perceive the Inter – relationship amongst Teaching, Learning, Knowledge and Pedagogy
- To understand how class room processes and contemporary concerns influence educational theorization

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Seminar: 10 marks
  - Assignments: 15 marks

Course Contents:

Unit 1 Education and Philosophy of education **03 hrs**

Problems, Scope and Logic
Introduction to Philosophy of Education
Thinking Philosophy

Unit 2 Epistemology: **03 hrs**

Knowledge – JTB and its alternatives
Discipline and Epistemology
Knowledge, Truth and Education

Unit 3 Epistemology and Education: **03 hrs**

Knowledge – Origin and Dissemination
Production of Knowledge and Schooling
Epistemology

Unit 4 Teaching and Learning: Philosophical Perspective: **03 hrs**

Experience and Learning
Teaching, Learning and Education
Human Learning

Unit 5 Thinker(s) **08 hrs**

John Dewey, Paulo Friere
MK Gandhi, RN Tagore

Prescribed Texts

1. Barrow and Woods, (1988), An Introduction to Philosophy of Education, London, Routledge and Kegan Paul.
2. Carr, D. (Ed.)(1998), Education, Knowledge and Truth, London, Routledge and Kegan Paul.
3. Carr. D. (Ed.)(1998), Education, Knowledge and Truth, Routledge, London.
4. Curren, Randall, (1998), Education Philosophy of, in E. Craig (Ed.) Routledge Encyclopaedia of Philosophy, Routledge, London.
5. Dewey, John, (1916), Democracy and Education, New York, MacMillan
6. Friere, Paulo, (1970), Pedagogy of the Oppressed, Penguin Books, England

Suggested Readings

1. Blake and et al (Ed.)(2003), The Blackwell Guide to Philosophy of Education, Blackwell, Oxford.
2. Hirst and Peters, (1970), The Logic of Education, London, Routledge and Kegan Paul.
3. Hirst and White (Ed.)(1998),Philosophy and Education: Major themes in the Analytic Tradition Vol. I
4. Kumar and Shukla, (1985), Sociological Perspectives in Education, New Delhi, Chanakya Publications.
5. Kumar Krishna, (1992), What is Worth Teaching, New Delhi, Oriental Longman.
6. Winch. C. (1998), The Philosophy of Human Learning, Routledge and Kegan Paul, London

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTR 403
Course name: Basics of Sociology
Course Instructor: Prakrati Bhargava
Course Credit: 2
Credit Equivalent:
One credit is equivalent to

- 10 hours of lecture/ organized classroom activity/ contact hours
- 5 hours of practical/ tutorial/ teacher led activity
- 15 hours of other workload such as independent individual / group work. Literature survey, library work, data collection, field work, writing of papers, projects, dissertation, thesis etc.

Course Objectives:

- The course will develop the understanding of various sociological concepts underlying the sociology of education with the help of theoretical perspective and empirical studies.
- The course will engage in understanding the relationship between school and society. Schools are the complex social organizations which are influenced by, and themselves shapes broader society.
- The course will look into the underlying theoretical perspective for understanding the external and internal forces that shapes the teaching-learning process in school.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Attendance/Participation 5 marks
  - Seminar: 10 marks
  - Assignments: 15 mark

Course outline

Unit 1: Introduction to Sociology (4hrs)

- Meaning, nature and scope of sociology
- Sociological approaches to education
- Theories and Concepts in sociology of education- Functionalist perspective, Liberal perspective and Marxist perspective

Unit 2: Education and socialization (4 hrs)

- Culture-concept and implication to education
- Agents of socialization- family, peer-group, community, institutions of formal education

Unit 3: Theories on social stratification (4 hrs)

- Meaning of social stratification
- Factors of social stratification
- Social stratification and Education

Unit 4: Education and Social Processes (4 hrs)

- Concept of community, school-community relationship and their educational importance
- Social change- factors and theories of social change
- Education and Social Mobility

Unit 5: School as a Social System (4 hrs)

- Schools as sites for young people's social development
- Family and schools: the home environment, social class and social space
- Deschooling Society

Essential Readings:

1. Blackledge, D. & Hunt, Barry. 1985. Sociological Interpretation of Education, London, Croom Helm.
2. Stephen, Ball. 2004. The Routledge Falmer Reader in the Sociology of Education, London and New York, Routledge Falmer.
3. Shukla & Kumar. 1985. Sociological Perspective in Education: A Reader, New Delhi: Chanakya Publication.

Suggested Readings:

1. Cook, L.A. & Cook, E. 1970. Sociological Approach to Education, New York, McGraw Hill.
2. Kamat, A.R. 1985, Education and Social Change, Bombay, Popular Prakashan.
3. Shipman, M.D. 1975. The Sociology of the School, Second Edition, London, Longman Orient.
4. Haralambos M. & Heald, R.M. 2012. Sociology Theories and Perspective, New Delhi, Oxford University Press.

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: TTR 405

Course Name: Psychological Foundations of Education

Course Instructor: Dr. Anu G.S. & Ms. Renu Bhandari

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: On completion of the course, the students will be able to:

- Understand the Nature, Scope and Methods of Educational Psychology
- Differentiate the impact of different schools of Psychology on Education
- Visualize multiple dimensions and stages of different phases of growth and development
- Develop the knowledge of the various theories related with the child development
- Critically analyze the process of learning.
- Apply the knowledge of motivation and creativity in practice
- Develop the conceptual overview of various Intelligence Theories & Measurement
- Apply the Knowledge of I.Q, E.Q and S.Q in various life situations.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Attendance/Participation: 5 marks
  - Seminar: 10 marks
  - Assignments: 10 marks

Course Contents:

UNIT I. Introduction to Educational Psychology (4hrs)

- Psychology- Educational Psychology- Meaning, Nature & Scope
- Methods of Educational Psychology- Introspection, Experimental, Differential, Clinical
- Schools of Psychology and their impact on Education- Structuralism, Functionalism, Behaviourism, Psychoanalysis, Humanist, Transpersonal and Cognitive psychology

UNIT II. Human Growth and Development (4hrs)

- Growth and Development: Concepts and Principles
- Cognitive and Language Development Theories: Piaget & Vygotsky
- Psychosocial developmental theory: Erikson
-

UNIT III. Learning and Motivation (4hrs)

- Learning - Learning Curves- Plateaus in Learning.
- Theories of learning: Behaviouristic, Gestalt, Field and Cognitive Theories.
- Cognitive and social Constructivism.
- Psychology of motivation and Theory of motivation: Maslow self actualization theory and Attribution theory
- Motivation in learning

UNIT IV. Intelligence (5 hrs)

- Intelligence– Neuroscience of Intelligence -Theories of Intelligence.
- Assessment of Intelligence- Individual Verbal, Individual Performance, Group Verbal and Group Non-verbal intelligence Tests
- Gardner's Multiple Intelligence Theory & Goleman's Emotional Intelligence Theory
- Development and Measurement of Emotional Intelligence
- Social Intelligence and Spiritual Intelligence

UNIT V. Creativity (3 hrs)

- Defining creativity
- Nature of Creativity-Stages in Creative Process- theories of creativity
- Identification of Creative Individuals

Essential Reading:

1. Woolfolk, A. et.al. (2012). *Fundamentals of educational psychology*. New Delhi: Pearson Education
2. Hurlock, E.B. (2008). *Developmental psychology* (5th ed.). New Delhi: Tata McGraw Hill
3. Dandapani, S. (2001). *Advanced educational psychology*, (2nd edition), New Delhi, Anmol publications pvt Ltd.

Suggested Reading:

1. Mangal, S.K. (2004). *Advanced educational psychology*. New Delhi: Prentice hall of India Pvt Ltd.
2. Gardner, H. (1983). *Frames of mind: The theory of multiple intelligence*. New York: Basic Books.
3. Baron, R.A. (2001). *Psychology*. New Delhi: Pearson Education Inc.,
4. Rao,R.K . Paranjpe,C.A and Dalal,K.A. (2008). *Book of Indian psychology*, Cambridge University Press India Pvt. Limited.
5. Zohar , S. & Marshall , I. (2001). Spiritual intelligence: The ultimate intelligence. Bloomsbury Publishing PLC
6. Long, M., Wood, C., Littleton, K., Passenger, T. & Sheehy, K. (2011). The psychology of education (2nd ed.). New York : Routledge Taylor & Francis Group.

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Course Code: TTR-406

Course Name: Research Methods and Statistics in Education

Credits Equivalent: 2

Course Objectives: After completing this course the students should be able to:

1. Develop an understanding about the scientific approach to human inquiry
2. Understand the meaning, importance, function and bases of research and research methodology.
3. Develop a scientific attitude towards the bases of research and researh methodology.
4. Understand purpose and nature of statistics and statistical inferences.
5. Explore new areas of research in educational research.
6. Acquire the skills for data collection, analyses and research writing

Attendance Requirements:

Students are expected to attend all the lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25% i.e. 25 marks out of 100
    a. Attendance/Class Participation 5%
    b. Assignment 10%
    c. Presentations 10%

COURSE CONTENTS:

UNIT -1: Introduction to research and research problem, variables and hypothesis

1. Knowledge and its sources.
2. Research and scientific inquiry.
3. Application to research.
4. Types of research design.
5. Function of research design.
6. Research report.
7. Research problems, variables and hypothesis.

UNIT -2: Review of related literature and using the internet for research

8. Locating and reviewing the related literature.
9. Purposes of review of related literature.
10. Steps of review of related literature.
11. Using the internet for research.

UNIT -3: Sampling and Measurements in research

12. Subject, participant and sampling.
13. Types of sampling and its procedure.
14. Types of samplingtechniques.
15. Uses of probability and non- probability in sampling.
16. How subject and sampling effect result.
17. What is Measurement and Evaluation.
    a) Descriptive statistics.
    b) Normal distribution.
    c) Measures of central tendency.
    d) Measures of variability.
    e) Validity and Reliability.

UNIT-4: Research design –non experimental, quantitative, experimental, qualitative and mixed method

18. Educational measures: norm reference and criterion reference test,
    a) Types of educational measures: test, questionnaire, observation, interview
19. Non- Experimental research design.

a) Descriptive design, relationship design, co-relation design, comparing-comparative and co-relation design, causal comparative design, using survey in non experimental design, steps in designing survey.

20. What is experimental research- experimental validity: internal and external validity.
    a) Experimental design
    b) Single subject research design.
21. Qualitative research: characteristics, assumptions, types of qualitative research, credibility of qualitative research, resources of qualitative research.

UNIT- 5: Statistics and statistical inferences in research and interpretations, conclusions and its implications.

22. Basics of Statistics (Central Tendency, Measures of Variability, Coorelation etc), Purpose and nature of statistical inferences.
23. Inferential test: Parametric: t-Test, ANOVA, Factorial ANOVA, ANCOVA.
24. Non-parametric test: chi-square, comparison of means and relationship.
25. Purpose and nature of discussion: session of research report, interpretation of result, conclusion, recommendations and implications.
26. Intelligent consumer: questions for qualitative and quantitative research.

Essential Readings

1. Introduction to Research in Education ((http://wps.ablongman.com/ab_mcmillan_edresearch_4/16/4150/1062448.cw/index.html)
2. Best and Kahn (1993)Research in Education. New Delhi: PHI
3. Garrett, H. E. (1982). Statistics in Psychology and Education. Amazon: Paragon International Publisher

Suggested Readings

1. Andrews, Richard (South Asia edition 2005): Research Questions, London: Continuum
2. Bailey, Kenneth D. (1978) Methods of Social Research, New York: Mcneil Pub.
3. Black, James A & Champion, Dean J. (1976) Methods and Issues in Social Research, New York : John Wiley
4. Gillham, Bill (2000) Case Study Research Methods, London: Continuum
5. Gillham, Bill (2000) The Research Interview, London: Continuum
6.Trochin and Donnelly (2006). Research Method Knowledge Base. Atomic Dog (http://anatomyfacts.com/Research/ResearchMethodsKnowledgeBase.pdf

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Course Code: TTR 411

Course Name: Education of Children with Special Needs

Course Instructor: Renu Bhandari

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: On completion of the course, the students will be able to:

- Understand concept, meaning and significance of inclusive education.
- Develop critical understanding of the recommendations of various commissions and committees.
- Understand the nature of difficulties encountered by children with special needs.
- Identify and explore existing resources.
- Develop a positive attitude and sense of commitment towards actualizing the right to education of all learners

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Attendance/Participation: 5 marks
  - Seminar: 10 marks
  - Assignments: 10 marks

Unit I Historical Progression (5hrs)

- Shifting models of disability.
- Concept and meaning of Learner with special educational needs (SEN).

Unit II National and Integrated Initiatives (10hrs)

- The Convention on the Rights of the Child.
- The World Declaration on the Survival, Protection and Development of Children and the plans of action (Outcome of the UNICEF World Summit for Children, (1990).
- The World Conference on Special needs Education and the Salamanca Statement and framework for action on Special Needs Education.
- Current laws and policy perspectives supporting IE for children with diverse needs.

Unit III Preparation for Inclusive Education (10hrs)

- Educational approaches and measures for meeting the diverse needs- concept of special education, integrated education and inclusive education.
- Brief account of existing special, integrated and inclusive education services in India.
- Overcoming barriers for inclusion.
- Creating and sustaining inclusive practices.

Unit IV - Children with special needs (10 hrs)

- Definition and characteristics of children with sensory, intellectual , developmental disabilities, social and emotional problems, scholastic backwardness, underachievement , slow learners , children with special health problems, environmental/ecological difficulties and children belonging to other marginal groups.
- Role of technology for meeting diverse needs of learners.

Unit V Utilizing resources (5hrs)

- Adaptations in instructional objectives, curriculum and co-curricular activities for meeting diverse needs of children from sensory, intellectual and learning disability.
- Types of services approaches, strategies, personnel involved and their specific roles and responsibilities.

Essential Readings

1. Ainscow, M., Booth. T (2003): *The Index for Inclusion: Developing Learning and Participation in Schools.* Bristol: Center for Studies in Inclusive Education.
2. Examples of inclusive education in India, UNICEF 2003
3. NCERT (2006): Position Paper National Focus Group on Education of Children with special Needs.
4. Sharma P.L (2003) *Planning Inclusive Education in Small Schools*, R .I E. Mysore

Suggested Readings

1. National curriculum framework, 2005.
2. Rehabilitation Council of India Act, 1992
3. The Persons with Disabilities Act (PWD Act, 1995).
4. The Convention on the Rights of the Child (Article 23, 28, 29 a2, 3, 6 and 10 &12).
5. UNICEF (1990) World Summit for Children.
6. Jha. M.(2002) *Inclusive Education for All: Schools Without Walls,* Heinemann Educational publishers, Multivista Global Ltd, Chennai, 600042, India.
7. Sharma P.L. (1990) *Teachers handbook on IED- Helping children with special needs*. N.C.E.R.T Publication

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Course Code: TTR 415

Course Name: Environmental Education

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: On completion of the course, the students will be able to:

- Develop an understanding of processes and components of environment.
- Understand the role of environmental education in sustainable development.
- Apply the knowledge of environmental ethics in inculcating environmental values.
- Aware people for the preservation and conservation of environment.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25% i.e. 25 marks out of 100
   - Attendance/Participation: 5 marks
   - Seminar: 10 marks
   - Assignments: 15 marks

Unit IEnvironmental concepts and degradation (3hrs)

- Concept of environmental processes and systems
- Global environmental issues.
- Factors of degradation of environment: adverse socio-economic impacts of degradation of environment.

Unit IIEnvironmental Education (3 hrs)

- Concept, importance, and scope of environmental education
- Aims and Objectives of environmental education
- Guiding principles and foundations of environmental education
- Methods of teaching environmenteducation (field visits, discussion, demonstration, observation, project method.

Unit-III Environmental Ethics (4hrs)

- Environmental ethics: concept, need, scope, nature of values related to environmental conservation.
- Learning from nature, Indian culture and environmental conservation.
- Strategies for inculcating environmental values among the students at various levels of education.

Unit IV International Efforts and Environmental Movements (5 hrs)

The Stockholm conference 1972 ,Brundtland commission 1983, Nairobi conference 1982 , The Rio Summit 1992 – the Rio Declaration at the earth charter – Major achievements of the Rio Summit – Main features of the Rio Declaration – Kyoto Conference and part on Global Warming 1997.

- Environmental movements in India: Silent valley movement, Chipko movement, Narmada bachao andolon, National Test Range at Baliupal, Orissa – conditions for achieving the goals of sustainable development – Strategies for sustainable development in India.

Unit V. Sustainable Development (5 hrs)

- Sustainable Development- concept, dimensions & principles
- International Institutions and programmes affecting the process of sustainable development- IUCN (International Union for conservation of Nature and Natural Resources) and UNEP (United Nations Environmental Programme)
- Education for sustainable Development- concept, scope, Need of an Interdisciplinary Approach.

Essential Readings

1. Hilgenkamp Kathryn (2006*). Environmental Health –Ecological Perspectives* London :Jones & Bartlett Publishers.
2. Iyer, Gopal (1996). Sustainable Development Ecological & Socio-cultural dimension. New Delhi : Vikas Publishing House Ltd.
3. Dayani, S. N., (1993). Management of Environmental Hazards. New Delhi : 110 014. Vikas Publishing House, Pvt. Ltd.

Suggested readings

1. Ashthana Vandanna, (1992). The Politics of Environment. New Delhi : Ashish Publishing, Houses, Punjabi Bagh.
2. James, George (1999). Ethical Perspectives on Environmental Issues in India. New Delhi- 100002 : APH Publishing.
3. http://www.unep.org/
4. http://www.envfor.nic.in/

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: TTR 414

Course Name: Education for Values and Human Rights

Credits Equivalent:04 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: on completion of the course, the student will be able to:

- To critically analyze the concepts and scope of Values and Human Rights.
- To understand the conflicts and the response of Education to multiple stratification(s).
- To map the concept of De – Schooling and Re – Schooling
- To perceive how education can contribute by interventions in evolution of egalitarian society

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Seminar: 10 marks
  - Assignments: 15 marks

Course Contents:

Unit 1 Human Rights: Justice, Equality and Democracy
Values and Constitutional Values
Egalitarianism
Citizenship
Unit 2 Stratification and Human Rights
Gender and Sexuality
Caste and Class
Language, Religion, Region and Color
Unit 3 Theoretical Perspective
Ideology
Unequal Education
Functional and Conflict Theories
Unit 4 Schooling and De – Schooling
Indoctrination
Danger School and De Schooling
Ideology and Curriculum
Unit 5 Critical Theory and Praxis
Education for Change
Transformative for Change
Equity Pedagogy

Prescribed Texts

Dewey, John, (1916), Democracy and Education NY, Macmillan
Deshpande, S., (2004), India: A Sociological View, Penguin, New Delhi.
Freeman, M., (2002), Human Rights: An Inter – Disciplinary Approach, Polity Press, Oxford.
Friere, Paulo, (1970), Pedagogy of the Oppressed, Penguin Books, England

Suggested Readings

Ghurye, G.S., (1950), Caste and Class in India, Popular Prakashan, Bombay.
Hargopal, G., (2002), Rights of Dalits: An Inquiry into Human Rights Discourse in India, Indian Journal of Human Rights.
Illich, Ivan, De – Schooling Society
http://www.preservenet.com/theory/Illich/Deschooling/intro.html

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Course Code: TTR 427

Course Name: Inclusive Education: Equity and Diversity

Course Instructor: Renu Bhandari

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: On completion of the course, the students will be able to:

- Understand concept, meaning and significance of inclusive education.
- Develop critical understanding of the recommendations of various commissions and committees towards teacher preparation for inclusive education.
- Identify and explore existing practices.
- Understand the nature of difficulties encountered by children with special needs.
- Analyze special education, integrated education, mainstream and inclusive education practices.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Attendance/Participation: 5 marks
  - Seminar: 10 marks
  - Assignments: 10 marks

Unit I- Introduction to Inclusive Education (3hrs)

- Inclusion: rationale & rights.
- Historical perspectives on education of children with diverse needs.
- Advantages of inclusive education.

Unit II- National and International Initiatives (5hrs)

- Convention on the Rights of the Child.
- The World Conference on Special Needs Education and the Salamanca statement and framework for action on Special Needs Education.
- The Indian education commission (1964-66) and national policy on education 1986.
- Current Laws and Policy perspectives supporting inclusive education for children with diverse needs.

Unit III- Children with Diverse Needs (5hrs)

- Definition and characteristics of children with sensory, intellectual , developmental disabilities, social and emotional problems , scholastic backwardness, underachievement , slow learners , children with special health problems, environmental/ecological difficulties and children belonging to other marginal groups.
- Adaptations in instructional objectives , curriculum and co-curricular activities for meeting diverse needs of children from sensory, intellectual, learning disabled, rural, gender, SC/ST and linguistic and other minority groups.

Unit IV-Preparation for Inclusive Education (4hrs)

- Concept and meaning of diverse needs.
- Educational approaches and measures for meeting the diverse needs- concept of remedial education, special education, integrated education and inclusive education.
- Brief account of existing special, integrated and inclusive education services in India.
- Overcoming the barriers.
- Creating and sustaining inclusive practices.

Unit V- Teacher Preparation and support services (3hrs)

- Teaching skills and competencies
- Professional growth of teachers and teacher educators
- Role of teachers working in inclusive settings and resource teacher in developing and enriching academic skills for higher learning.
- Types of services approaches, strategies, personnel involved and their specific roles and responsibilities.

Essential Readings

1. Ainscow, M., Booth. T (2003): *The Index for Inclusion: Developing Learning and Participation in Schools.* Bristol: Center for Studies in Inclusive Education.
2. Sharma, P.L. (1990) *Teachers handbook on IED-Helping children with special needs* N. C. E R.T Publication.
3. UNICEF(2003) : Examples of Inclusive Education India.
4. NCERT(2006): Position Paper National Focus Group on Education of Children with special Needs.

Suggested Reading:

1. Ahuja. A, Jangira, N.K. (2002): *Effective Teacher Training; Cooperative Learning Based Approach: National* Publishing house 23 Daryaganj, New Delhi 110002.
2. Sharma P.L (2003) *Planning Inclusive Education in Small Schools*, R .I E. Mysore
3. The Convention on the Rights of the Child (Article 23, 28, 29 a2, 3, 6 and 10 &12).
4. UNICEF: World Summit for Children, (1990)
5. Jha. M.(2002) *Inclusive Education for All: Schools Without Walls,* Heinemann Educational publishers, Multivista Global Ltd, Chennai, 600042, India.
6. NCERT (2006). National Focus Group Report on Education of SCs and Sts, New Delhi.
7. NCERT (2006) National Focus Group Report on Gender Issues in Education, New Delhi.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: TTR412

Course Name: ICT in Education

Credits Equivalent:2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: on completion of the course, the students will be able to:

- UnderstandSignificance of ICT in Education.
- Explain Factors Affecting and Facilitating ICT Learning.
- Use the various accessories of computer for educational purpose.
- Transect the curriculum through ICT.
- To understand the ethical and legal issues related to ICT.
- Use search engines for their research purpose.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25% i.e. 25 marks out of 100
   - Seminar: 10 marks
   - Assignments: 15 marks

Course Contents:

UNIT-I: (7 hrs)

- Concept, Characteristics, Advantages, Uses, Scope of ICT in Education, Factors Affecting and Facilitating ICT Learning, Challenges in Integrating ICT in Education

UNIT-II: (5 hrs)

- Computers as an educational tool,computer generationsTypes of computers, Computer Accessories for educational purpose, Hardware, Software, Storage devices, Curriculum transaction through ICT

UNIT-III: (6 hrs)

- Internet: concept, History and its Uses in education, Intranet: Concept, its need and benefits, Search Engines and their workings, Legal and Ethical Issues

UNIT-IV: (2 hrs)

- Concepts of E-Learning, Web Based Learning, Virtual Classroom.

Suggested Readings:

1. Manju, Gehlawat (2012). Information Technology in Education, Pearson Publication, Delhi, Total PAGE 378
2. Pandey, V.C. (2005). Framework of ICT and Teacher Education, Isha Books, Delhi, Rs. 890 Total Page 318
3. Sareen, N. (2005). Information and Communication Technology, Anmol Publication, New Delhi, Rs. 175 Total Page 389.
4. Sharma, B.M. (2005). Net Oriented Education, Akshansha Publication House, New Delhi, Rs. 160 Total Page 294.
5. Siddiqui, M.H. (2004). Technology in Higher Education, APH Publication, Delhi, Rs. 220 Total Page 354.
6. Tinio, Victoria, L. ICT in Education, http://www.saigontre.com/FDFiles/ICT_in_Education.PDF

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: TTR 433 **Credit: 4**

Course Name: Commerce Education

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100 Seminar: 10 marks

Assignments: 15 marks

COURSE OBJECTIVES

1. To enable the student to understand the objectives of teaching Commerce.
2. To acquaint the student with current trends in developing commerce curriculum up to higher education level.
3. To acquaint the student with the modern trends in teaching Commerce.
4. The student will apply the various techniques, strategies in the teaching of Commerce in actual classroom situation.
5. The student will understand the research needs in Commerce education.

COURSE CONTENTS

UNIT1- Nature, Aims and Objectives of Commerce Education

- Concept and Growth Commerce Education of India
- Nature and scope of Commerce Education
- Significance of Commerce Education

- Understanding Aims and objectives of Teaching Commerce Education
- Need and Importance of learning commerce up to higher education level
- Instructional Objectives in Commerce Teaching
- Relevance of Commerce education in the present Educational System.

Unit II—Curriculum Development

- Principles of Curriculum Construction.
- Curriculum and Syllabus
- Defects of existing pattern of Curriculum.
- Correlation of Commerce with other Subjects

Unit III— Teaching Commerce

- Methods of Teaching Commerce: Lecture, Project Method, Problem Solving Method, Socialized Recitation Method, Role Playing Method, Unit Method
- Techniques And Principles of Teaching Commerce
- Commerce Text Book
- Application of Teaching-aids

Unit IV: **Commerce Teacher**

- Qualifications of a Commerce Teacher
- Interests and classification of qualities of Commerce Teacher
- Professional growth of a Commerce Teacher
- Duties of Commerce Teacher

Unit IV—Need for Evaluation*:*

- Concept and Kinds of Evaluation
- Evaluation Approach in Education, Its meaning and definition
- Steps, Application, Precautions and Limitations of Evaluation Approach in Teaching Commerce
- Classification of Evaluation tests, Cumulative records, Test and Techniques.

Suggested Readings:

1. Aggarwal, J. C. (1996) Teaching of Commerce: A Practical Approach, New Delhi: Vikas Publishing Housing Pvt. Ltd.
2. Borich, Gary D. (1996) Effective Teaching Methods, New Jersey:Prentice Hall Inc.
3. Brown, James W and Lewins and Richard B (1985), A. V. Instruction Technology, Media and Methods. New York: Mc Graw- Hill Book Co.
4. Gupta, S. P. (1996), Elementary Statistical Methods, New Delhi: Sultan Chand & Sons.
5. Gajj(2013). Revitalising Commerce Education. *Vidyasagar University Journal Of Commerce*.Ar,. Relevance Of Commerce Education In Present Era. *International Journal For Research In Management And Pharmacy*.

6. Joyce. Bruce and Weil, Marsha, (1997), Models of Teaching, New Delhi: Prentice-hall of India Pvt. Kuppusami, C. (2007). Let us view the recent change in the control of our education in the perspective of :A Short History fo Indian Education.
7. Mocr, Kenneth D (1994). Secondary Instructional Methods Madison: WCB Brown & Bench Mark Publishers.
8. Moharir, K. (n.d). Higher Education In Commerce-Challenges. *Abhinav:National Monthly Refereed Journal Of Reasearch In Commerce & Management, Volume No.1*(Issue No.9).
9. Rao, Seema (1995), Teaching of Commerce, New Delhi: Anmol Publications Pvt. Ltd
10. *Reddy,D.O.*(2007). Revitalizing Commerce Education, *Vidyasagar University Journal Of Commerce,Vol. 12.*
11. *Bhanot Suman (2013),* Commerce Education And Teaching, New Delhi: Kanshika Publishers, Distributors

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course title: Science Education
Course code: TTR 436
Course credit: 4
Course instructor: Prakrati Bhargava
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

The course has been designed to accomplish following objectives:
• understand the nature of science as a dynamic, expanding body of knowledge and as a social endeavor;
• understand the difference and complementarities between Science and Technology;
• understand the need to evaluate curricula and evaluate the same on the basis of different validities;
• know about and critically study innovative curricular efforts in India and abroad;
• understand diversity of instructional materials, their role and the need for contextualization in science education;
• appreciate the role of co-curricular activities in science education;
• understand the Constructivist approach to science instruction;

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.
Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Attendance/Participation: 5 marks
  - Seminar: 10 marks
  - Assignments: 15 marks

Course Content

Unit I - Nature of Science

• What is Science? Evolution of Science as a discipline. Science as a dynamic expanding body of knowledge. Development of scientific knowledge; Scientific method and Scientific Explanation.
• Science as a social Endeavor; Dual role of science (emancipatory and oppressive).
• Science and Technology, complementarities between Science and Technology; Science and Mathematics and their complementarities, role of Mathematics in Science.
• Common misconceptions of pupils about the nature of science; Characteristics of different disciplines of science, their interrelationship and integration.

Unit II -Curriculum Trends in Science Education

• Trends in science education from the beginning of the nineteenth century to the present- at national level; a brief history of Science Education.

- Criteria of validity of science curriculum: content, cognitive, process, historical,
- environmental, ethical.
- Taxonomy for curriculum development
- Co-curricular activities and their role in Science Education, integrating curricular activities with science education.

Unit III- Approaches to Science Learning

• Approaches to concept learning, conceptual change model (reconstructing alternative concepts in science).
• Constructivist paradigm and its implications for Science learning; the learning cycle.
• Different types of constructivist approaches to science learning: inquiry method, problem solving strategies, investigatory approach, guided discovery approach, inductive method, project based learning, planning different types of projects, cooperative and collaborative learning, activity based learning, role of experiments in science, integration of theories and experiments in science: development of laboratory design, planning and organization of laboratory work, reporting skills, procedural knowledge, improvisation in the laboratory and low cost science experiment, ICT based science education.
• Encouraging and respecting children responses, introducing alternative approaches in science learning, Thematic approach, integrating science across different disciplines and with real life situations.
• Metacognitive Strategies- giving space to pupils to think, organizing their knowledge and expressing teacher as a reflective practitioner.

Unit IV-Assessment in Science Education

• Role of assessment in Science Teaching and Learning. Review and Critique of the traditional methods of assessment: Formative and Summative. Changing trends in assessment: from paper-pencil tests to authentic assessment: from single attribute to multidimensional assessment, from individual assessment to group assessment, from learning outcome to learning experiences performance based assessment of Projects models, activities and investigative skills, reporting students achievement by comparing students prior and current learning achievement and relevant feedback to students.

• Assessment of affective measures in Science: use of tools and techniques such as observation, rating scale, check-list, anecdotal records, attitude scales, interest inventories and interviews.
• Self-assessment by students and by teachers, peer assessment, assessment of teachers by students.
• Portfolios: Planning and assessment of Portfolios in Science learning.
• Assessment of curricular activities: organization and impact. Assessment of Laboratory skills and procedural knowledge. Assessment of Content knowledge through Activities and Experiments.

Unit V- Contemporary Issues in Science and Society.

• Scientific and Technological Literacy.
• Science education in the context of developing countries.
• Science in a progressive democratic society.
• Critical pedagogy and its integration in the science classroom.
• Communication skills in science.
• Language and science.
• Ethical aspects of science.
• Teacher Empowerment; lifelong learning.
• Innovations and Creativity in Science.

Suggested Readings

• Alan J. McCormack. Trends and Issues in Science curriculum in Science Curriculum Resource Handbook: A practical guide to k 12 science curriculum. Kraus International Publications
• Bhanumathi, S. (1994) Small Scale Chemical Techniques – Chemistry Education (April-June) 20-25.
• Black, P (1998). Testing: Triend or Foe? Theory and practice of Assessment and Testing. Falmer Press, London.
• Carey, S. (1986). Cognitive Science and Science Education. American Psychologist. 41 (10), 1123-1130
• Chalmers, A. (1999). What is the thing called Science.3rd Ed.Open University Press, Bucking ham.
• Driver. R, Leach. J, Millar. R and Scott, P. (1996). Young Peoples' Image of Science. Open University Press, Buckingham.
• Gipps, C.V. (1994). Beyond Testing. Falmer Press, London.
• International Journal of Science Education; Taylor & Francis.
• Journal of Research in Science Teaching (Wiley-Blackwell).
• Minkoff, E.C.& Baker, P.J. (2004). Biology Today: An Issues Approach, garland science. New York. Pp.1-32. Biology: Science & Ethics.
• Minkoff, E.C. and Pamela J. Baker (2004). Biology Today: An issues Approach. Garland Science New York pp. 1-32, Biology: Science and Ethics.
• NCERT, National Curriculum Framework- 2005, NCERT. New Delhi.
• NCERT, (2005). 'Focus Group Report' Teaching of Science NCERT New Delhi.
• Novak, J.D. & Gowin, D.B. (1984)
peer reviewed journal for elementary teachers).
- Science Teacher (NSTA's peer reviewed journal for secondary science teachers).
- Steve Alsop & Keith Hicks (2003) Teaching Science. Kegan Paul Pvt. Ltd.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course title: Politics and Economics of Education
Course code: TTR 603
Course credit: 4
Course instructor: Dr. Navneet Sharma, Ms. Prakrati Bhargava
Semester: Monsoon

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective:
The course will accomplish following objectives:

- Develop the understanding of constitutional provisions and subsequent amendment with regard to education.
- Acquaint the students with socio-political development in India and its reflection in various education commissions.
- Critically examine the relationship between education and economic development.
- Understanding the challenges before Indian education system at various levels.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Attendance/Participation: 5 marks
  - Seminar: 10 marks
  - Assignments: 10 marks

Course Outline

Unit 1 Indian Constitution and Policy Framework for Education

- Fundamental Rights and Directive Principle of the State
- Constitutional amendments and Right to Education

Unit 2 Reviewing the Indian Education through policy framework

- Education for national development: Kothari Commission and its impact on Indian education system
- National policy on education 1986
- The growth of Centrally directed projects

Unit 3 Education, Human Capital and Human Resources Development

- Concept and Importance of Human Capital
- Schultz's Human Capital Theory of Education and its Limitations
- Concept and Importance of Human Resource Development
- Strategies for Developing Human Resources with reference to developing countries

Unit 4 Education and Economic Development

- Concept of Economic Growth and Development
- Educational Pre-requisites for Economic Growth
- Contribution of Education to economic growth
- Relative Significance of Different Levels of Education in Economic development with special reference to India

Unit 5 Political economy of the state and challenges for education

- Educational expansion and quality
- Access and equity

Essential Reading:

- Blaug Mark Economics of Education & the Education of an Economist New York, University Press, 1987.
- Blaug Mark An Introduction to Economics of Education, England, Penguin Books Ltd. 1980.
- Kapur Devesh and Mehta, Pratap Bhanu 2004 "Indian Higher Education Reform from Half-baked Socialism to Half-baked Capitalism", CID Working Paper No 108, September.
- Kumar Krishna. 1987. Political Agenda of Education, New Delhi.

- Majumdar, Tapas. 1997 Economics of Indian Education for the Next Century, The Indian Economic Journal, 45(4), April-June.
- Pscharo Pulos, G. & Woodhall, M. Education for Development- An Analysis of Investment choices, London, World Bank Publisher, 1985
- Sen Amartya & Dreze J.1996 Indian Economic Development and Social Opportunity, OUP.
- Varghese, NV & Mehta A.C Investment Priorities and Cost Analysis NIEPA, New Delhi, 2001.
- Development in practice: Primary Education in India A World Bank publication, 1997
- Rao, Sudha K. Educational Policies in India - Analysis and Review of Promise and Performance. NUEPA 2002.
- Rao Jagannatha D. Elementary Education in India: Status, Issues and Concerns Viva Books Private Limited, 2010
- Naik, J.P. Equality, Quantity And Quality – an Elusive triangle in Indian education Allied publishers, 1975
- Ramachandran Vimla. Gender & Social Equity in Primary Education
- Tilak, Jandhyala B G The Kothari Commission and Financing of Education

Education Reports

- NCERT. 1970. Education and National Development Report of the Education Commission 1964-66.
- Towards an Enlightened and humane Society, National Policy on Education 1986, A Review (Committee for Review of National Policy and Education), New Delhi, 1990.
- The Right to Children to Free and Compulsory Education Act 2009, Ministry of Law and Justice.
- Report of The CABE, Committee on Financing of Higher and Technical Education, NIEPA, 2005.
- http://socialjustice.nic.in/pdf/constprovmsje.pdf
- http://admis.hp.nic.in/himpol/Citizen/LawLib/Amendments/CONSTITUTION%20OF%20INDIA/COI.htm#a13

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTR – 606 **Credit : 4**

Course Name: Quantitative Research in Education

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100 Seminar: 10 marks

Assignments: 15 marks

At the end of the coursework the students will be able to.

a) To understand importance of statistics in education.
b) To understand the concept of qualitative and quantitative data.
c) To acquaint students with knowledge of sampling.
d) To enable the students the concept of hypotheses testing.

COURSE CONTENTS

Unit-I

a) Origin and Development of Statistics
b) Meaning and Definition of Research
c) Importance and Scope of Statistics
d) Statistics in Educational Research

Unit-II:

a. Organization of data
b. Classification of data
c. Frequency Distribution
d. Cumulative Frequency Distribution
e. Tabulation
f. Types of Tabulation

Unit-III:

1. Meaning and definition of Central Tendencies

a) Mean,
b) Median
c) Mode
d) Comparison of mean, median and mode

2. Measures of Dispersion

a) The Range
b) The Quartile deviation
c) Average Deviation
d) The Standard Deviation

Unit-IV

a) Meaning and definition of normal distribution
b) Meaning and definition of Normal Probability Curve
c) Properties of normal probability curve
d) Uses of normal probability curve

Unit-V

1. Correlational Analysis

a) Meaning and Definition of Coefficient of correlation
b) Spearman's Rank Difference Method
c) Pearson's Product Moment Method
d) Point Bi Serial
e) Bi Serial
f) Tetra choric
g) Pahai

2. 't'-Test for Difference of mean
3. Chi-Square Test
4. Analysis of Variance

Suggested Readings:

1. Good, Carter V. (1959) Introduction to Educational Research New York, Appleton Century Crofts, Inc.
2. Koul, Lokesh (1984). Methodology of Educational Research, New Delhi, Vikas Publishers
3. Mouly, George J. (1970) The Science of Educational Research 2nd Edition, New York, Van Nostrand Reinhold Company,
4. Pal, S.K. & P.C. Sexena Eds. (1985) Quality Control in Educational Research New Delhi, Metropolitan Book Co. Pvt.Ltd.
5. Sheffer, Sheldon Eds. (1983) Educational Research Environments in the Developing
    a. Countries. Ottawa, International Development Research Centre.
6. Sukhia, S.P., P.V.Mehrotra & R.N. Mehrotra (1974) Elements of Educational Research, 3rd Revised Edition, New Delhi, Allied Publishers Pvt. Ltd..
7. Travers, Robert M.W. (1958) An Introduction to Educational Research New
8. York, Macmillan & Co..
9. Turney, B.L. & George Robb (1971) Research in Education, Replinois, Dryden
10. Verma, L.K. and Statistics in Education and Sharma N.R. Psychology
11. Vockell, E.L. & Asher J.W. (1995)Educational Research New Jersey Merrill
12. Whitney Frederick L.(1950) The Elements of Research New York, Prentics Hall Inc.,
13. Wiresma W. (1995) Research Methods in Ed An Introduction. Boston Allyn &Bacon

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTR 612
Course Name: Curriculum Development
Course Instructor: Dr. Anu G.S.

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
On completion of this course the students will be able to:

- Define curriculum & identify the components of curriculum
- Describe the various principles of curriculum development
- Explain various determinants of curriculum
- Describe and analyze various approaches to curriculum development
- Explain and compare various types of curriculum
- State major issues to be addressed through curriculum
- Describe various modes of curriculum development
- Explain various considerations for curriculum development?
- Describe various guiding principles for selection and organization of learning experiences.
- Discuss various issues in curriculum development?

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 marks out of 100
  - Attendance/Participation: 5 marks
  - Seminar: 10 marks
  - Assignments: 10 marks

Course Contents:

Unit I- Nature, Principles and Determinants of Curriculum (4 hrs)

Meaning and concept of curriculum - Curriculum as a body of organized knowledge, inert and live curriculum- Components of Curriculum: Objectives, content, transaction mode and evaluation- Philosophical and ideological basis of curriculum - Principles of integration - Theories of curriculum development- Preservation of Culture- Relevance, flexibility, quality, contexuality and plurality - Determinants of Curriculum

Unit II- Approaches and types to Curriculum Development (5 hrs)

Subject centred- Core curriculum - Learner centred - Community centred- Curriculum Frameworks of School Education and Teacher Education- Humanistic Curriculum: characteristics, purpose, role of the teacher, psychological basis of humanistic curriculum- Social reconstructionist curriculum: characteristics, purpose, role of the teacher in reconstructionist curriculum

Unit III- Models of Curriculum Development (3 hrs)

Tylers-1949 model- Hilda Taba 1962 model- Nicholls and Nicholls-1972 model- Willes and Bondi-1989 model- Need assessment model - Futuristic model- Vocational/Training model

Unit IV- Selection and Organisation of learning experiences (4 hrs)

Principles and criteria for developing learning experiences- Points to be considered while selecting learning experiences- Designing integrated and interdisciplinary learning experiences- Integration of learning experience related to work experience, sensitivity to gender parity, peace oriented values, health and needs of children with disabilities, arts and India's heritage of crafts- Infusion of environment related knowledge and concerns in all subjects and levels- Learning to draw upon resources other than text books including local history and geography

Unit V- Issues in Curriculum Development (4 hrs)

Centralized vs. decentralized curriculum- Diversity among teachers in their competence- Problem of curriculum load- Participation of functionary and beneficiaries in curriculum development

Transactional Mode

Both the individual and group learning/transactional strategies need to be adopted. Besides the lectures, discussions, demonstration methods; attempts needs to be made to provide hands on in developing and demonstrating the materials. Students' seminars on select themes especially the current issues in curriculum development could be originalised. Field visits to places of other curricular sites i.e. museums, planetarium, zoo, sanctuaries, art and craft related sites, historical monuments, science parks etc could be arranged and group work on the educational importance of these sites could be done and presented by pupil teachers. As an exposure to prevailing good practices, select schools could be visited by pupil teachers for observation and preparation and presentation of reports. Visits to library and laboratories could be arranged to deal with specific themes. Book reviews (including reference books and school textbooks) available at secondary level of education could be done and presented as assignments.

Sessional Work: The students may undertake any one of the following activities:

- Reading of original documents i.e. National Curriculum Frameworks developed by NCERT, 2005, NPE-1986 (modified version 1992) POA on NPE-1996/1992, National Curriculum Framework of Teacher Education (2009) developed by NCTE and examine the documents with respect to various aspects of foundation and presentation in groups.
- Students will go through various definition of curriculum and will arrive at comprehensive definition of curriculum.

Essential Readings

1. Dewey, J. (1966). *The Child and the Curriculum*. The University of Chicago Press.
2. Wiles, J.W. & Joseph, B. (2006). *Curriculum development: A guide to practice*.
    a. Pearson's Publication.
3. NCTE (2009). *National Curriculum Framework for Teacher Education*.

Suggested Readings

- McKernan, James (2007): Curriculum and Imagination: Process, Theory, Pedagogy and Action Research. Routledge. U.K.
- NCERT (2005). National Curriculum Framework-2005, NCERT, Sri Aurobindo Marg, New Delhi.
- NCERT (2000). National Curriculum Framework for School Education, NCERT, New Delhi.
- Aggarwal, Deepak (2007). Curriculum development: Concept, Methods and Techniques. New Delhi. Book Enclave.
- Joseph, P.B. et al; (2000). Cultures of Curriculum (studies in Curriculum Theory). New York. Teacher College Press.
- Taba Hilda (1962). Curriculum Development: Theory and Practice, New York, Harcourt Brace, Jovanovich Inc.

School of Humanities & Languages

Department of English & European Languages

School of Humanities & Languages

Name of the Department: **Department of English & European Languages**
Name of the Programme of Study: **MA (English Language & Literature)**

First Semester

Sr. No.	Name of Course	Course Code	Credit	Name of Teacher
1.	Renaissance	EEL 404	4	Dr. Khem Raj Sharma
2.	History of English Language	EEL 401	2	Dr. KBS Krishna
3.	History of English Literature	EEL 402	4	Mr. Hem Raj Bansal
4.	Neo-Classicism	EEL 406	4	Ms. Shaweta Nanda

Third Semester

Sr. No.	Name of Course	Course Code	Credit	Name of Teacher
1.	Literary Theory from Aristotle to T.S.Eliot	EEL 423	4	Dr. Roshan Lal Sharma
2.	Modernism	EEL 503	4	Dr. Khem Raj Sharma
3.	American Literature	EEL 433	4	Dr. KBS Krishna
4.	Immigrant and Diasporic Writings	EEL 409	2	Mr. Hem Raj Bansal
5.	World Literature: Concept and Major Texts	EEL 407	2	Ms. Shaweta Nanda

University Wide Courses

Sr. No.	**Name of Course**	**Course Code**	**Credit**	**Name of Teacher**
1.	Literature and Filmic Representation	EEL 410	2	SN; KRS; KBS; HRB
2.	Academic Writing	EEL 412	2	SN; KRS; KBS; HRB
3.	Short Stories from around the World	EEL 438	2	SN; KRS; KBS; HRB
4.	Mystical Literature in English Translation	EEL 432	2	RLS
5.	Popular Literature	EEL 435	2	SN; KRS; KBS; HRB
6.	Advanced Oral Communicative Skills in English	EEL 414	2	SN; KRS; KBS; HRB
7.	Crime Fiction	EEL441	2	SN; KRS; KBS; HRB

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: EEL 402

Course Name: History of English Literature

Credits Equivalent: 04 credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective:

Making the student aware about:

- the evolution of English literary writings from the times of Chaucer onwards (in a chronological sequence);
- development of genres;
- representation of historical movements; and
- language variation and style.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - i Assignment: 10%
  - ii Class participation: 10%
  - iii Group discussion: 5%

Course Contents:

UNIT-1 English Literature in the Making **(9 Hours)**

- Conquest of Britain
- Anglo-Saxon Literature
- The Age of Chaucer
- The English Renaissance
- Elizabethan Literature: Shakespeare, University Wits

UNIT-2 Jacobean to Restoration **(6 Hours)**

- The Restoration
- The Metaphysical Poets
- The Puritan Interregnum

UNIT-3TheAugustan Age- 18th century literature **(7 Hours)**

- The Augustan Age
- Emergence of Sensibility
- PeriodicalLiterature
- Rise of the Novel

UNIT-4 Romantic & Victorian Period **(8 Hours)**

- French Revolution
- The Romantics
- The Victorian Age
- The Triumph of the Novel

UNIT-5Modern & Postmodern Period **(10 Hours)**

- The Twentieth Century
- Post - World War Literature
- Modernism
- Postmodernism
- Internationalization

Prescribed Text Books:

1. Compton–Rickett**,** Arthur (2009).*History of English Literature.* UBS Publishers, New Delhi.
2. Alexander,Michael(2000).*A History of English Literature*. Macmillan, London.
3. William J. Long. *English Literature: Its History and Its Significance for the Life of the English Speaking World* .England:Kessinger Publishing, 2010.

Suggested Extra Readings:

1. Daiches, David (2003). *A Critical History of English Literature*,(vol.I& II).Supernova Publication, New Delhi.
2. Sanders, Andrew (2004).*The Short Oxford History of English Literature*. Oxford University Press, London.

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Course Code: EEL 404

Course Name: Renaissance

Credits Equivalent:04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The course is designed to:

- understanding the spirit of renaissance with reference to the cross fertilization of ideas;
- understandingthe birth of the new world reflected especially in the humanistic tradition of thought and literary expression.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course.

A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Quiz exams – based on texts: 5%
  - Two 1000 word assignments – the first to be submitted before September 1st, and the second to be submitted before November 1st: 5%
  - 3000 word Term Paper to be submitted before December 1st : 10%
  - Presentations: 5%

Course Contents:

UNIT – I: John Donne (Metaphysical Poetry) **(8 Hours)**

- Introduction: Author, Genre (Poetry)
- The Cannonisation
- The Sun Rising
- The Ecstasy
- The Flea
- A Valediction: Forbidding Mourning
- Critical Analysis/Interpretation

UNIT – II: John Milton (*Paradise Lost- Book 1*) **(8 Hours)**

- Introduction: Author, Genre (Epic)
- The Text
- Critical Analysis/Interpretation

UNIT – III: Christopher Marlowe (*The Tragic History of Dr. Faustus*) **(8 Hours)**

- Introduction: Author, Genre (Play)
- The Text
- Critical Analysis/Interpretation

Unit – IV: Essays by Francis Bacon **(8 Hours)**

- Introduction: Author, Genre (Essays)
- Of Truth
- Of Wisdom for a Man's Self
- Of Discourse
- Of Studies
- Of Honour and Reputation
- Of Ambition
- Critical Analysis/Interpretation

Unit – V: Sir Thomas More's *Utopia* (Novel) **(8 Hours)**

- Introduction: Author, Genre (Fiction)
- The Text
- Critical Analysis/Interpretation

Prescribed Text Books:

1. Bacon, Francis (2009). *Essays*. J. M. Dent, University of Virginia.
2. Chambers, E.K. (1989). *Poems of John Donne*. Lawrence &Bullen, London.
3. Marlowe, Christopher (2009). *The Tragic History of Dr. Faustus*. Dover Publications, New York.
4. Milton, John (2004). *Paradise Lost-Book I*. UBS publishers, New Delhi.
5. More, Thomas (1996). *Utopia*. The Harvard Classics, New York.

Suggested Reading:

1. Bowen, Catherine Drinker, D. Balestra and Dominic J. Balestra (1993). *Francis Bacon: The Temper of a Man.*Fordham University Press, New York.
2. Guibbory, Achsah ed.(2006). *TheCambridge Companion to John Donne*. Cambridge University Press, UK.
3. Hopkins, Lisa (2008). *Christopher Marlowe, Renaissance Dramatist.* Edinburg University Press, Edinburg.
4. Keenan, Siobhan (2008). *Renaissance Literature*. Edinburg University Press, Edinburg.
5. Milton, John, Fay Weldon, and Christopher Ricks (2010). *Paradise Lost & Paradise Regained.* Signet Classics, USA.
6. Roper, William (2012). *The Life of Sir Thomas More*. Hardpress Publishing, New York.

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Course Instructor: Shaweta Nanda **Course Name:** World Literature
Course Code: EEL 407

Credits Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The course is designed to:

- Make students understand the meaning and significance of World Literature
- To introduce them to writings in various genres by writers from around the world

Attendance Requirements:

Students are expected to attend all lectures to fully benefit from the course.

A minimum of 75% attendance is a must; failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Quiz based on the Reading of the Prescribed Texts: 10%
  - Assignments and Class Tests : 10%
  - Paper Presentations and Discussion : 5%

Course Content:

UNIT – I:World Literature: Meaning & Significance (4 Hours)

Texts:

Franco Moretti – "Conjectures on World Literature" [Essay]
Joseph Remenyi – "The Meaning of World Literature" [Essay]

UNIT – II: World Literature: Poetry **(4 Hours)**
Texts:
Charles Baudelaire – "Correspondences"
Charles Baudelaire – "Sorrows of the Moon"
Pablo Neruda- "Castro Alves From Brazil"

Pablo Neruda- " The Way Spain Was"

Derek Walcott – "The Sea is History"
Derek Walcott – "A Far Cry from Africa"

UNIT – III: World Literature: Fiction(4 Hours)
Texts:
Nikolai Gogol -"The Overcoat"
Gabriel Garcia Marquez – *Chronicle of a Death Foretold*

UNIT – IV:World Literature: Drama **(4 Hours)**
Texts:
Dario Fo – *Accidental Death of an Anarchist*

Unit – V:World Literature: Non-Fiction **(4 Hours)**
Texts:
Selections from Anne Frank's *Diary of a Young Girl*
Octavio Paz- "Nobel Prize Acceptance Speech"

Prescribed Texts:

1. Baudelaire, Charles. "Correspondences". *doctorhugo.* n.P. N.D. Web. 13 December 2013.
2. Baudelaire, Charles. "Sorrows of the Moon". *Poemhunter.* N.P. 3 January 2003. Web. 27 December 2013.
3. Marquez, Gabriel Garcia. *Chronicle of a Death Foretold.* Columbia: Vintage, 1981. Print.
4. Moretti, Franco. "Conjectures on World Literature." *New Left Review 1* (January-February 2000): 54-68, Print.
5. Remenyi, Joseph."The Meaning of World Literature". *The Journal of Aesthetics and Art Criticism*, 9.3 (Mar 1951), 244-251. Print.
6. Fo, Dario. *Accidental Death of an Anarchist.*(1970) New Delhi: Methuen Drama; Indian ed edition (August 1, 2001) Print.
7. Frank, Anne. *Diary of a Young Girl*. New York: Bantham, 1993. Print.
8. Gogol, Nikolai. *The Overcoat and Other Short Stories.* London: Dover Publications ,2012. Print.
9. Neruda, Pablo. "The Dictator". *Poemhunter.* N.P. Web. 27 December 2013.
10. Neruda, Pablo. "Castro Alves From Brazil". *Poemhunter.* N.P**.** Web. 15 December 2013.

11. Paz, Octavio. "Nobel Prize Acceptance Speech". *NobelPrize. Org*. Web. 2 June 2014. Online.
12. Walcott, Derek. *Derek Walcott: Collected Poems* 1848-1884. New York: Farrar, Straus and Giroux, (1987). Print

Suggested Reading:

1. Atkinson, William." The Perils of World Literature." *World Literature.* 80:5. (Sep-Oct 2006) 43-47. Print.
2. Beckett, Samuel. *Dante and the Lobster. Geocities.* N.P. N.D. Web. 23 December 2013.
3. Behan, Tom. "Accidental Death of an Anarchist".*Revolutionary Theatre*. London:Pluto Press, 2000. Print.
4. Bloom, Harold.ed. *Gabriel Garcia Marquez.*New York:Chelas House Publishers, 2007. Print.
5. Bloom, Harold.ed. *Nikolai Gogol.*PA: Chelas House Publishers, 2004. Print.
6. Bloom, Harold.ed. *Octavio Paz*. Philadelphia: Chelas House Publishers, 2002. Print.
7. Borges, Jorge Luis. *Ficciones.* New York: Grove Press, 1994. Print.
8. Brecht, Bertolt. *The Caucasian Chalk Circle.* Oxford: Heinemann Publishers, 1960.
9. Brecht, Bertolt. "The Modern Theatre Is the Epic Theatre: Notes to the Opera *Aufstieg und Fall der Stadt Mahagonny*". *Brecht on Theatre: The Development of an Aesthetic*. Ed. and trans. John Willett. London: Methuen, 1964. Print.
10. *Camus, Albert. The Stranger. New York: Vintage Books, 1942.* Print.
11. Cairns, Christopher. "Dario Fo and the Commedia dell'arte." *Studies in the Commedia dell'arte.* Ed. David J. George and Christopher J Gossip.Cardiff: University of West Wales, 1993. Print.
12. Caistor, Nick. *Octavio Paz.* London: Reaktion Books, 2007. Print.
13. Clements, Robert J. "World Literature Tomorrow." *World Literature Tomorrow.* 51:2. (Spring 1977) 181-186. Print.
14. Damrosch, David."Introduction" from *How to read World Literature.* New Jersey: Wiley-Blackwell, 2008. Print.
15. Dostoevsky, Fyodor. "Notes from the Underground." *Gutenberg.* N.P. N.D. Web. 14 December 2013.
16. Eichenbaum, Boris. "The Structure of Gogol's "The Overcoat."" *Russian Review.*22.4 (1963) :377-399. Print.
17. Eichenbaum, Boris. "How Gogol's Overcoat is Made."*Gogol from the Twentieth Century: Eleven Essays.* Ed. Robert E. Maguire. Princeton: Princeton UP, 1974. Print.
18. Kafka, Franz. *The Metamorphosis and Other Stories*. New York: Barnes & Noble, 1996. Print.
19. Kerschner, Linda Milanese. "Teaching World Literature: Preparing Global Citizens." 91:5, The World of Literature, (May 2002) 76-81. Print.
20. Maupassant, Guy de. "Ball-of-Fat." *The Works of Guy de Maupassant: Short Stories. London: M Walter Dunne, 1903.*Print.
21. Marquez, Gabriel Garcia. *No One Writes to the Colonel and other stories.* New York: Harper Perennial, 2005. Print.

22. Paz, Octavio. “Between Going and Coming”. *Poemhunter. n.P.* 3 November 2011. Web. 22 December 2013.
23. Paz, Octavio. “No More Clichés”. *Poemhunter. n.P.* 3 April 2004. Web. December 2013.
24. Pelayo, Rubin.*Gabriel Garcia Marquez: A Critical Companion.* Westport: Greenwood Press, 2001.
25. Reese, James D. “Learning for Understanding: The Role of World Literature.” *The English Journal.* 91:5, The World of Literature, (May 2002) 63-69. Print.
26. Rilke, Rainer Maria. “Fire’s Reflection”. *Poemhunter. n.P.* 13 January 2013. Web. 20 December 2013.
27. Rilke, Rainer Maria. “The Poet”. *Poemhunter. n.P.* 3 January 2003. Web. 20 December 2013.
28. Sedwick, Frank, B. “The Literary Movements Defined”. *Hispania.* 37:4 (Dec 1954) 466- 471. Print.
29. Slonismsky, Alexander. “The Technique of Comic in Gogol.” *Gogol from the Twentieth Century: Eleven Essays.* Ed. Robert E. Maguire. Princeton: Princeton UP, 1974. Print.
30. Sophocles. “Oedipus the King ”. *Internet Classics Archive.* N.P. N.D. Web. 16 December 2013.
31. Soyinka, Wole. “Abiku.” *Allpoetry.*. N.P. N.D. Web. 30 December 2013.
32. Soyinka, Wole. “Abiku.” *ctdams.* N.P. N.D. Web. 31 December 2013.
33. Wing, Joylynn. “The Performance of Power and Power of Performance: Rewriting the Police Station in Dario Fo’s Accidental Death of an Anarchist”.*Modern Drama.* 23.1 (1990): 141-149. Print.
34. Yan, Mo. “Bull.” *New Yorker.* N.P. November 26, 2012. Web. 13 January 2014. Print.

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Course Code: EEL 409

Course Name: Immigrant and Diasporic Writings

Credits Equivalent:02 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The course is designed towards defining and differentiating the concept of immigrant, exile, the diasporaand the expatriate with reference to individual and collective histories, imagined and actual journeys, home and homelessness, and reconstruction of time and space.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course.

A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Subjective Assignment: 10%
  - Class Tests and Quiz : 10%
  - Presentations: 5%

Course Contents:

UNIT – I: Introduction **(3 Hours)**

- Concept of Diaspora
- Indian Diaspora
- World Diaspora
- Stuart Hall: "Cultural Identity and Diaspora"
- William Safran: "Diasporas in Modern societies: Myths of Homeland and Return"

UNIT – II: Chitra Banerjee Divakaruni :*Arranged Marriage* **(5 Hours)**

- Introduction: The Author, The Text
- The Text
- Critical Analysis/Interpretation

UNIT – III:Caryl Phillips: *Crossing the River* **(5 Hours)**

- Introduction: The Author, The Biography
- The Text
- Critical Analysis/Interpretation

UNIT – IV:Derek Walcott: Poems **(4 Hours)**

- Introduction: The Poet, The Poems
- A City's Death By Fire
- A Far Cry from Africa
- Love After Love
- Critical Analysis/Interpretation

UNIT – V: The Making, Development and Unmaking of Diaspora **(3 Hours)**

- Proliferation of Incipient Diasporas
- Impact of Globalization
- Migrants as Social Actors

Prescribed Text Books:

1. Divakaruni, Chitra Banerjee.*Arranged Marriage*. New Delhi:Black Swan, 1997.
2. Phillips, Caryl. *Crossing the River.* London: Random House, 2006.
3. Walcott, Derek (1986). *Collected Poems (1948-1984)*. Faber and Faber, London.
4. Cohen, Robin (2008).*Global Diasporas: An Introduction*. Routledge, London.
5. Sheffer, Gabriel (2003).*Diaspora Politics At HomeAbroad.* Cambridge, UK.

Suggested Reading:

1. Said, Edward W. (2001). *Reflections on Exileand Other Literary and Cultural Essays*. Penguin, New Delhi.
2. Ashcroft, Bill (2005). *The Empire Writes Back.* Routledge, Chennai.

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Course Code: EEL 414

Course Name: Advanced Oral Communicative Skills in English

CreditEquivalents: 02 Credits(One credit is equivalent to 10 hours of lectures/organized classroom activities/contact hours; 5 hours of laboratory work/practical/field work/Tutorial/teacher-led activities and 15 hours of other workload such as independent individual/group work; obligatory/optional work placement; literature survey/library work; data collection/field work; writing of papers/projects/dissertation/thesis; seminars, etc.)

Course Objectives

The course is designed

- to improve the students' accuracy and fluency in Spoken English as much as possible during the period of instruction
- to prepare the students to be more confident and active participants in all aspects of their program by developing their ability to use effective oral communication strategies throughout
- to develop enduring oral communication skills in the students bythe appropriate use of English in different situations and for different purposes cutting across the curriculum

Attendance Requirements

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is mandatory failing which a student will not be permitted to appear in the examination.

Course Requirements

All students registered in this course must comply with the following requirements.

- Attend classes regularly with active participation
- Speak only English in class and in all course activities
- Demonstrate substantial effort and progress in the development of oral communication skills in English necessary for academic success
- Fulfill other course requirements including meeting assignment deadlines and writing exams

Evaluation Criteria

- Mid-Term Examination: 25%
- End-Term Examination: 50%

- Continuous Internal Assessment: 25%
  a) Active and Effective Participation in Classroom: 10%
  b) Reading Passages (Fluency, Pronunciation and Confidence): 5%
  c) Declamations, Extempore and Presentations: 5%
  d) Home Assignments: 5%

Course Contents

UNIT-I Basics of Phonetics **(6 hours)**

- Speech Sounds (Vowels and Consonants)and Syllables
- Word-Stress and Intonation

Activities: Transcribing Commonplace/Simple English Words, List of Words Often Mispronounced, Correct Pronunciation and Intonation Drills byReading Short Poems and Prose Pieces Aloud, Practice of Pronunciation and Intonation through Individual Presentations

UNIT-II Vocabulary and Syntax **(6 hours)**

- Select Idioms, Proverbs and Phrasal Verbs
- Tenses and Transformation of Sentences

Activities: Word Formation (Roots, Prefixes, Infixes and Suffixes); List of Homophones, Homographs, and Homonyms; List of Words Often Confused; Parsing; Using Discourse Markers; Interaction Based on Tenses and Sentence Transformation, Idiomatic Use of Language

UNIT-IIIReading and Listening Skills **(6 hours)**

- Slow, Speed and Fixed Reading
- Types and Traits of Good Listening

Activities:Skimming and Scanning While Reading Short Passages, Assigning Poetry and Prose Passages to Read and Comprehend, Listening to Select Audio-Visual Clips/Abstracts of Literary Discourses and Movies, Interpersonal Communication Based on Reading and listening Exercises, Finding the Gist of Argument by Reading/Listening

UNIT-IV Improvisation-Based Communication **(6 hours)**

- Debate and Group Discussion
- Personal Interview and Public Speaking

Activities: Tech-Based Communication Including Power Point Presentations, Mock Interviews, Debate and Group Discussion on Selected Issues, Mock Press Conference, Impromptu Speaking, Prepared Speech, Story-Telling, Using Non-Verbal Communication Skills While Speaking

UNIT-VLanguage Games **(6 hours)**

- Dialogue Speaking and Vocabulary Brainstorming
- Charades and Pictorial Description

Activities: Organizing and Testing the Above and Related Games by Creating Different Situations, Role Playing, Snowball Story-Telling, etc.

Prescribed Text Book

1. Mohan, Krishna, and MeeraBanerji(2012).*Developing Communication Skills*. Macmillan, Delhi.

Further Readings

2. Bansal, R. K., et al. (2009). *Spoken English*. Orient Black Swan, Hyderabad.
3. Gangal, J.K. (2010). *A Practical Course in Spoken English*. PHI, New Delhi.
4. Konar, Nira (2010). *Communication Skills for Professionals*. PHI, New Delhi.
5. McCarthy, M., et al. (1999).*English Vocabulary in Use: Upper-Intermediate & Advanced*.Cambridge UP, Cambridge.

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Course Code: EEL 418

Course Name: Studying the Canon: Shakespeare

Credits Equivalent:04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The course is designed to:

- Make students understand the characteristic features of Shakespeare's Works
- Show the extent of Shakespeare's Art and Criticism
- And enable them to think and work on research topics related to Shakespeare

Attendance Requirements:

Students are expected to attend all lectures to fully benefit from the course.

A minimum of 75% attendance is a must; failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
    - Quiz exams – based on texts: 10%
    - 1000 word Term Paper to be submitted before December 1st : 10%
    - Presentations: 5%

Course Content:

UNIT – Introduction (8 Hours)
Socio-Political and Religious Scenario; Literary and Theatre Background; Life & Works of William Shakespeare.

Texts:
Samuel Johnson: "Preface to Shakespeare" [Essay]
Harold Bloom: Shakespeare: "Center of the Canon" [Essay]

UNIT – II: Tragedies and Histories (8 Hours)
Shakespearean Tragedies, Roman Plays, and Histories; Power of Rhetoric; Rational vs. Irrational; Idea of Republic.

Texts:
A.C.Bradley: "Introduction" to *Shakespearean Tragedy* [Essay]
A.W.Verity: "Introduction" to *Julius Caesar* [Essay]
Shakespeare: *Julius Caesar* [Play]
Herbert Wise: *Julius Caesar* [Movie]
David Daiches: "Guilt and Innocence in *Julius Caesar"* [Essay]

UNIT – III: Comedies and Romances (8 Hours)
Shakespearean Romances and Comedies; Autobiographical Element; Post Colonial Crtiique; Masque; Three Unities

Texts:
Penny Gay: "Comedy as Idea and Practice" [Essay]
Northrop Frye: "Introduction" to *The Tempest* [Essay]
Shakespeare: *The Tempest* [Play]
John Gorrie: *The Tempest* [Film]
Robert Browning: "Caliban upon Setebos; or, Natural Theology in the Island" [Essay]

UNIT – IV: Sonnets (8 Hours)
Shakespeare as a Poet; Sonnet as a Poetic Form; Shakespearean Sonnet; Muses; Sexuality in Shakespeare

Texts:
W.H.Auden: "Evaluating Shakespeare's Sonnets as Poetry" [Essay]
Shakespeare: Sonnet No. 29 (To the young man) [Poem]
Sonnet No. 60 (To Eternal Art) [Poem]
Sonnet No.130 (To the Dark Lady) [Poem]
Sonnet No.116 (True Art) [Poem]
Bruce R Smith: "Shakespeare's Sonnets and the History of Sexuality: A Reception History" [Essay]

UNIT – V: Interpreting and Adapting Shakespeare (8 Hours)
History of Shakespeare Criticism; Classical Critique of Shakespeare; New Criticism and Shakespeare; New Historicism and Shakespeare; Derogatory Criticism of Shakespeare; Adapting Shakespeare

Texts:
T.S.Eliot: "Shakespeare Criticism till Coleridge" [Essay]
J. Isaacs: "Shakespeare Criticism from Coleridge to the Present Day" [Essay]
Leo Tolstoy: "A Critical Essay on Shakespeare" [Essay]
Stephen Greenblatt: "Shakespeare and the Uses of Power" [Essay]
Gerald Camp: "Shakespeare on Film" [Essay]

Prescribed Text Books:

1. Johnson, Samuel."Preface to Shakespeare" from Enright, D.J., Ernst De Chickera. Ed. *English Critical Texts: 16th to 20th century.* London: Oxford University Press, 1962. (131-161)Print.
2. Bloom, Harold. *The Western Canon: The Books and School of the Ages.* London: Macmillan, 1994. Print.
3. Bradley, A.C. *Shakespearan Tragedy.* Calcutta, Radha Publishing House, 1991. Print.
4. Verity, A.W. Ed. *Shakespeare's Julius Caesar.* London: Cambridge University Press, 1966. Print.
5. *Julius Caesar.* Dir. Peter Hammond. Perf. Ken Hutchinson, Brian Wilde, Pat Heywood. BBC, 2005. DVD.
6. Daiches, David. "Guilt and Innocence in *Julius Ceasar."* from Lerner, Laurence. Ed. *Shakespeare's Tragedies: An Anthology of Modern Criticism.* Middlesex: Penguin Books, 1963. (39-41) Print.
7. Gay, Penny. "Comedy as Idea and Practice." from Gay, Penny. Ed. *The Cambridge Introduction to Shakespeare's Comedies.* New York: Cambridge University Press, 2008. (1-15) Print.
8. Frye, Northrop. "Introduction to *The Tempest."* from Bloom, Harold. *The Tempest.* New York: Infobase Publishing, 2008. (187-193) Print.
9. Verity, A.W. Ed. *Shakespeare's The Tempest.* London: Cambridge University Press, 1963. Print.
10. *The Tempest.* Dir. John Gorrie. Perf. Michael Hordern, Derek Godfrey, David Waller. BBC, 1980. DVD.
11. Browning, Robert. "Caliban upon Setebos; or, Natural Theology in the Island" from Bloom, Harold. *The Tempest.* New York: Infobase Publishing, 2008. (187-193) Print.
12. Auden, W.H. "Evaluating Shakespeare's Sonnets as Poetry." *saintbonaventure.* N.P. N.D. Web. August 7, 2014.
13. Evans, Blakemore Evans. Ed. *The Sonnets (The New Cambridge Shakespeare).* London: Cambridge University Press, 1997. Print.
14. Smith, Bruce. R. "Shakespeare's Sonnets and the History of Sexuality: A Reception History" from Dutton, Richard and Jean. E. Howard. *A Companion to Shakespeare's Works Volume IV: The Poems, Problem Comedies, Late Plays.* Malden: Blackwell Publishing, 2003. (4-26) Print.
15. Eliot, T.S. "From Dryden to Coleridge." from Granville-Barker, Harley, G.B. Harrison. Ed. *A Companion to Shakespeare Studies.* London: Cambridge University Press, 1949. (287-299) Print.
16. Isaacs, J. "From Coleridge to the Present Day." from Granville-Barker, Harley, G.B. Harrison. Ed. *A Companion to Shakespeare Studies.* London: Cambridge University Press, 1949. (300-304) Print.7, 2009
17. Tolstoy, Leo. "A Critical Essay on Shakespeare." *Gutenberg.* N.P. January 7, 2009. Web. August 8, 2014.
18. Greenblatt, Stephen. "Shakespeare and the Uses of Power." *Nybooks.* N.P. N.D. Web. August 8, 2014.
19. Camp, Gerald, M. "Shakespeare on Film" *Journal of Aesthetic Education.* 3:1 (1969):107-120. Print.

Suggested reading:

Bradby, Anne. Ed. *Shakespeare Criticism 1919-35.* London: Oxford University Press, 1936. Print.
Brown, Ivor. *Shakespeare: The Man, the Poet and the Plays.* London: Collins Press, 1949. Print.
Compton-Rickett, Arthur. *A History of English Literature: From Earliest Times to 1916.* New Delhi: UBSPD, 1997. Print.
Craig, Hardig. *The Literature of the English Renaissance: 1585-1660.* London: Collier-Macmillan, 1950. Print.
Handy, William J. Max Westbrook. *Twentieth Century Criticism: The Major Statements.* New Delhi: Light & Life Publishers, 1974. Print.

Suggested Movies:

Angoor. Dir. Gulzar. Perf. Sanjeev Kumar, Moushumi Chatterjee, Deven Verma. A.R. Movies, 1982. DVD
Born to Hate ... Destined to Love (Ishaqzaade). Dir. Habib Faizal. Perf. Arjun Kapoor, Parineeti Chopra, Gauhar Khan. Yash Raj Films, 2012. DVD.
Goliyon Ki Rasleela Ram-Leela. Dir. Sanjay Leela Bhansali. Perf. Deepika Padukone, Ranveer Singh, Supriya Pathak. 2013. DVD.
Issaq. Dir. Manish Tiwari. Perf. Malini Awasthi, Sandeep Bose, Amyra Dastur. Dhaval Gada Productions, 2013. DVD.
Maqbool. Dir. Vishal Bharadwaj. Perf. Irrfan Khan, Tabu, Pankaj Kapur. Kaleidoscope Entertainment, 2003. DVD.
Omkara. Dir. Vishal Bharadwaj. Perf. Ajay Devgn, Kareena Kapoor, Saif Ali Khan. Big Screen Entertainment, 2006. DVD.

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: EEL 433
Course Name: American Literature
Course Instructor: Dr KBS Krishna
Credits Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)
Course Objective: The course is designed to:

- Make students understand the characteristic features of American literature.
- Show how American literature developed.
- And enable them to think and work on research topics in American literature.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course.
A minimum of 75% attendance is a must; failing which a student may not be permitted to appear in examination.
Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Quiz exams – based on texts: 10%
  - 1000 word Term Paper to be submitted before December 1st : 10%
  - Presentations: 5%

Course Content:

UNIT – I **(8 Hours)**

Brief Introduction to American Literary History

a) Texts: Essays

John Winthrop – "A Model of Christian Charity" [Essay]
Thomas Jefferson – "Declaration of Independence" [Essay]
Robert E Spiller, William Thorp, Thomas H. Johnson, Henry Seidel Canby, Richard M. Ludwig – "Address to the Reader" from *Literary History of the United States* [Essay]

b) Texts: Poetry

Walt Whitman – "Out of the Cradle Endlessly Rocking" [Poem]
Walt Whitman – "O Captain! My Captain!" [Poem]
Walt Whitman – "When Lilacs last in the Dooryard Bloom'd" [Poem]

UNIT – II: **(8 Hours)**

Texts:

Edgar Allan Poe – " The Fall of the House of Usher" [Short Story]
Henry Thoreau – "Civil Disobedience" [Essay]
Mark Twain – *The Adventures of Huckleberry Finn* [Novel]

UNIT – III: **(8 Hours)**

Texts:

Emily Dickinson- "My Life had stood a loaded Gun" [Poem]
Emily Dickinson- "Because I could not stop for death" [Poem]
Emily Dickinson- "What Mystery pervades a well" [Poem]
Jim Cullen- "Dream of the Good Life: The Coast" from *The American Dream: A Short History of an Idea that Shaped a Nation.*
Arthur Miller – *Death of a Salesman* [Play]
Ernest Hemingway- *Old Man and the Sea* [Novella]

UNIT – IV: **(8 Hours)**

Texts:

Lance Jeffers- "Afro-American Literature: The Conscience of Man" [Essay]
William Faulkner – *Sound and the Fury* [Novel]
Ezra Pound – "A Station of the Metro" [Poem]
Ezra Pound – "The Pact" [Poem]
Ezra Pound – "And the days are not full enough" [Poem]

Unit – V: **(8 Hours)**

Texts:

Robert Frost – "Acquainted with the night" [Poem]
Robert Frost – "The Most of it" [Poem]
Joyce Carol Oates – "Where are you going, where have you been?" [Short Story]
Leslie Fiedler – "Preface" from *Love and Death in the American Novel* [Essay]
Anne Proulx – "Brokeback Mountain" [Short Story]
Peter Carafiol - "Commentary: After American Literature" [Essay]

Prescribed Text Books:

1. Winthrop, John. "A Model of Christian Charity." *Digital History.* N.P. 2013. Web. June 10 2014.
2. Jefferson, Thomas. "Declaration of Independence" *The Charters of Freedom.* N.P. N.D. Web. June 9 2014.
3. Spiller, Robert E . William Thorp, Thomas H. Johnson, Henry Seidel Canby, Richard M. Ludwig, *Literary History of the United States.* London: Macmillan Publishers, 1946. Print
4. Whitman, Walt. "O Captain! My Captain." *Poemhunter.* N.P. December 31 2002. Web. June 2 2014.
5. Whitman, Walt. "When Lilacs last in the Dooryard Bloom'd." *Poetryfoundation.* N.P. N.D. 2002. Web. June 2 2014
6. Whitman, Walt. "Out of the Cradle Endlessly Rocking." *Bartleby.* N.P. N.D. 2002. Web. June 2 2014
7. Poe, Edgar Allan. "Fall of the House of Usher." Matthews, Brander, ed. *The Short-Story: Specimens Illustrating Its Development.* New York: American Book Company, 1907. Print.
8. Thoreau, Henry David. "On the Duty of Civil Disobedience." *Gutenberg.* N.P. May 11 2004. Web. June 4 2014.

9. Twain, Mark. *Adventures of Huckleberry Finn,* 1884. New York: Dover Publications, 1994. Print.
10. Dickinson, Emily. "My Life had stood- a Loaded Gun." *Poetryfoundation.* N.P. N.D. Web. May 23 2014.
11. Dickinson, Emily. "Because I could not stop for Death." *Poetryfoundation.* N.P. N.D. Web. May 14 2014.
12. Dickinson, Emily. "What Mystery pervades a well." *Bartleby.* N.P. N.D. Web. April 30 2014.
13. Miller, Arthur. *Death of a Salesman.* London: Penguin Books, 1976. Print.
14. Hemingway, Ernest. *Old Man and the Sea.* 1952. New York: Scribner, 1995. Print.
15. Cullen, Jim. "Dream of the Good Life: The Coast" from *The American Dream: A Short History of an Idea that Shaped a Nation.* New York: Oxford University Press, 2003. Print.
16. Faulker, William. *Sound and the Fury.* New York: McGraw Hill Text, 1946. Print.
17. Pound, Ezra. "In a Station of the Metro." *Bartleby.* N.P. N.D. Web. May 25 2014.
18. Pound, Ezra. "A Pact" *Poemhunter.* N.P. January 3 2003. Web. May 25 2014.
19. Pound, Ezra. "And the Days are not Full Enough." *Bartleby.* N.P. N.D. Web. May 25 2014.
20. Jeffers, Lance. "Afro-American Literature: The Conscience of Man" T*he Black Scholar*, 2:5, Black Literature (1971): 47-53. Print.
21. Frost, Robert. "Acquainted with the Night" *Poemhunter.* N.P. January 3 2003. Web. May 26 2014
22.Frost, Robert. "The Most of It" *Book of Joe.* N.P. Web. October 2 2005
23. Oates, Joyce Carol. *Where are you going, Where have you been? : Selected Early Stories.* San Francisco: Ontario Review Press, 1994. Print.
24. Fiedler, Leslie. *Love and Death in the American Novel.* New York: Meridan Books, 1960. Print.
25. Proulx, Anne. *Brokeback Mountain.* 1997. New York: Scribner and Sons, 2005. Print.
26. Peter Carafiol - "Commentary: After American Literature" *JSTOR*. *American Literary History*. N.D. Web. June 13 2014

Suggested Reading:

1. Marx, Leo. *Machine in the Garden: Technology and the Pastoral Idea in America.* New York: Oxford University Press, 1964. Print.
2. Lewis, R.W.B. *The American Adam: Innocence, Tragedy and Tradition in the Nineteenth Century.* Chicago: University of Chicago Press, 1955. Print.
3. Emerson, Ralph Waldo. *The Essential Writings of Ralph Waldo Emerson.* New York: Modern Library, 2000. Print.
4. Eliot, T.S. "Tradition and Individual Talent". *Bartleby.* N.P. N.D. Web. June 1 2014.
5. Lawrence, D.H. *Studies in Classic American Literature* (1923), edited by Ezra Greenspan, Lindeth Vasey and John Worthen, Cambridge University Press, 2002. Print.
6. Chase, Richard. *The American Novel and its Tradition.* Baltimore: John Hopkins University Press, 1958. Print.
7. Bloom, Harold. *The American Dream: Bloom's Literary Themes.* Chelsea: Chelsea House Publishers, 2009. Print.

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[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: EEL 438

Course Name: Short Stories from around the World

Credits Equivalent: 02 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The course is designed to make students aware about

- The genre of short story and its historical evolution across continents.
- The best short stories around the globe, picking at least one from major authors of the world.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course.

A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Quiz based on the Reading of the Prescribed Texts: 10%
  - Assignments and Class Tests : 10%
  - Paper Presentations and Discussion : 5%

Course Contents

UNIT – I: Introduction (1 Hours)

- A Historical Overview
- Short Story: Its points of departure/ variance from other literary genres.
- Edgar Allan Poe: "Tale Writing"
- Alan H. Pasco : "On Defining Short Story"

UNIT – II: Indian Short Stories (3 Hours)

Shashi Deshpande "Last Enemy"

Satyajit Ray "Prof Shonku and the Macaw"

UNIT – III: British / American Short Stories (6Hours)

Arthur Conan Doyle -"A Scandal in Bohemia"

Edgar Allen Poe - "Tell Tale Heart"

James Finn Garner- "Cinderella"

UNIT – IV Russian/ French Short Stories Short Stories (4 Hours)

Gogol , Nikolai-"The Nose"

Guy de Maupassant -"The Necklace"

UNIT – V:South African/ Latin American/ German Short Stories (6 Hours)

Nadine Gordimer-"Counrty Lovers"

Gabriel Garcia Marquez-"A very Old Man With Enormous Wings"

Ida Fink -"The Key Game"

Prescribed Text Books:

Deshpande, Shashi."Last Enemy."*Collected Short Stories Vol 2*. New Delhi: Penguin Books, 2004. Print.

Doyle, Arthur Conan. "A Scandal in Bohemia."*The Complete Sherlock Holmes : All 56 Stories & 4 Novels.* New York: Random House, 1986.

Fink, Ida. "Key Game."*A Scrap of Time and Other Stories*.Pantheon Books, 1987.

Garner, James Finn. "Cinderella".*Politically Correct Bedtime Stories: Modern Tales for Our Life and Times.*New York: Macmillan, 1994, Print.

Gogol, Nikolai. "The Nose."*The Collected Tales of Nikolai Gogol*.New York: Vintage Classics, 1999.

Gordimer, Nadine. "Country Lovers".*Town and Country Lovers*.Sylvester &Orphanos, 1980. Print.

Maupassant, Guy de.*The Complete Short Stories*. Delhi: Rupa Publications, 2000. Print.

Marquez, Gabriel Garcia. "A Very Old Man With Enormous Wings". *Fiction 100: An Anthology of Short Stories*. Ed. James H. Pickering. New York: Macmillian Publishing Company, 1992. Print.

Poe, Edgar Allan. "Tell Tale Heart."*Edgar Allan Poe: Complete Stories and Poems.*New York:Barnes& Noble Inc, 2012. Print.

Ray, Satyajit. "Prof. Shonku and Macaw".*Diary of a Space Traveller and Other Stories.* London: Penguin, 2009.

Suggested Readings:

- Achter , Erik Van . "How First Wave Short Story Poetics came into Being: E. A. Poe and Brander Matthews"N.A. Web.
- Afridi, Humera. "The Price of Hubris." *And the World Changed.* Ed. MuneezaShamsee. New York: Feminist Press at The City University of New York, 2008. Print.
- Baldwin, James. "Sonny's Blues." *Fiction 100: An Anthology of Short Stories*. Ed. James H. Pickering.New York: Macmillian Publishing Company, 1992. Print.
- Bama. "Scorn." *The Little Magazine*.6.4. Web.http://www.littlemag.com/reservation/bama2.html.
- Bates, H.E. *Modern Short Story: Critical Survey.* London: Robert Hale , 1988. Print.
- Bloom, Harold. *Short Story Writers and Short Stories.* Philadelphia: Chelsa House Publishers, 2005. Print.
- Boynton, Robert W. *Introduction to the Short Story*. Sandton : Heinemann Educational Books, 1992 Print.
- Chopin, Kate. "The Story of an Hour." *Fiction 100: An Anthology of Short Stories*. Ed. James H.Pickering. New York: Macmillian Publishing Company, 1992. Print.
- Christie, Agatha. "The Kidnapped Prime Minister". *Fiction 100: An Anthology of Short Stories*. Ed James H. Pickering. New York: Macmillian Publishing Company, 1992. Print.

- Gordimer, Nadine. *Jump and Other Stories*.UK: Bloomsbury Publishing, 2013. Print.
- Hoggle, Jerrold E. Ed.*The Cambridge Companion to Gothic Fiction*. Cambridge: Cambridge University Press, 2002. Print.
- Hunter, Adrian. *The Cambridge Introduction to Short Story in English.* Cambridge: Cambridge University Press, 2007, Print.
- James, Edward. Ed. *The Cambridge Companion to Science Fiction.* Cambridge: Cambridge University Press, 2003. Print.
- Manto, Saadat Hasan. *Manto: Selected Short Stories*. Trans. AatishTaseer. Delhi: Random House/Vintage, 2012. Print
- Priestman, Martin. Ed.*The Cambridge Companion to Detective Fiction*. Cambridge: Cambridge University Press, 2003. Print.

- Tolstoy, Leo. *The Greatest Short Stories of Leo Tolstoy*. Mumbai: Jaico Publishing House, 2009. Print.

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[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: EEL 406

Course Name: Neo-Classicism

Credit Equivalents: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The course is designed to:

Understand the major traits of Neo-classicism with emphasis on rationalistic thought, moralistic tone and tenor of life, and refinement of expression.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course.A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid -Term Examination: 25%
- End -Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Library Work Assignment: 5%
  - Subjective Assignment: 10%
  - Group Discussion: 5%
  - Presentations: 5%

Course Content:

UNIT – I: Introduction (**4 Hours)**

Introduction to the Neoclassical Age

- Social, political, intellectual and literary background of the Age

- Important authors, genres and literary themes and issues

UNIT – II: Mock Epic

Alexander Pope: *The Rape of the Lock* (1712) **(11 Hours)**

- Introduction: Author, Genre (Mock Epic) (1 lec)
- The Text: Alexander Pope's *The Rape of the Lock (* 8 lec)
- Critical Analysis/Interpretation(2 lec)

UNIT – III: Ballad Opera **(11 Hours)**

John Gay: *The Beggar's Opera* (1728)

- Introduction: Author, Genre (Ballad Opera) (1 lec)
- The Text: *The Beggar's Opera* (1728) (8 lec)
- Critical Analysis/Interpretation (2 lec)

UNIT – IV: Poetry (**6 Hours)**

a)Dr. Samuel Johnson: "The Vanity of Human Wishes:The Tenth Satire of Juvenal Imitated " (1749) (Satire**)**

- Introduction: Author, Genre (Poetry, Satire) (1 lec)
- The Text : Dr. Samuel Johnson's "The Vanity of Human Wishes:The Tenth Satire of Juvenal Imitated " (1749) (4 lec)
- Critical Analysis/Interpretation (1 lec)

Unit – V: Prose Readings **(8 Hours)**

a) Mary Astell: Selections from "Some Reflections on Marriage" (1700) (Pamphlet)
b) John Dryden: "A Discourse Concerning Original and Progress of Satire"(Criticism)
c) Joseph Addison and Richard Steele: "The Aims of The Spectator,"from *The Spectator* (1711) (Periodical Essay)
d) Eliza Haywood: Selections from *TheFemale Spectator* (Periodical Essay)
e) Jonathan Swift- "A Modest Proposal for Preventing the Children of Poor People From Being a Burden to Their Parents or Country, and for Making Them Beneficial to the Publick"(1729) (Satirical essay, Pamphlet)

- Introduction: Author, Genre, Intellectual Context
- The Text
- Critical Analysis/Interpretation

Prescribed Text Book:

a. Abrams, M. H. ed. (2000). *The Norton Anthology of English Literature*. 7th ed. New York, London: W. W. Norton & Company.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: EEL 423

Course Name: Literary Theory from Aristotle to T. S. Eliot

Credits Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures/ organized classroom activity/ contact hours; 5 hours of laboratory work/ practical/ field work/ Tutorial/ teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/ dissertation/ thesis; seminars, etc.)

Course Objective: The course is designed

- to make students understand meaning, nature and history of literary theory and criticism from Aristotle to T. S. Eliot
- to make students understand how conventional literary criticism and theory foregrounds modern and contemporary literary theory.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course.

A minimum of 75% attendance is mandatory failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Quiz Based on the Reading of the Prescribed Texts: 10%
  - Assignments & Class Test: 10%
  - Paper Presentations & Discussion: 5%

Course Content:

Introduction **(2 Hours)**

UNIT – I: Classical Background **(6 Hours)**

- Ancient Greek Criticism [Plato, Aristotle (*Poetics*)]
- Greek and Latin Criticism during the Roman Empire [Horace, Longinus (*On Sublimity*—Exerpts)]

UNIT – II: The Early Modern Period **(8 Hours)**

- Philip Sidney (*An Apology for Poetry*)
- John Dryden (*Essay of Dramatic Poesy*)
- Samuel Johnson (Preface to *Shakespeare*)

UNIT – III: The Earlier Nineteenth Century and Romanticism
Introduction to Modern Period **(8 Hours)**

- William Wordsworth (Preface to *Lyrical Ballads*)
- Samuel Taylor Coleridge [*Biographia Literaria* (Excerpts)]
- Ralph Waldo Emerson ('The Poet')

Unit – IV: The Later Nineteenth Century **(7 Hours)**

- Walter Pater ('Studies in the History of the Renaissance')
- Matthew Arnold ('The Function of Criticism at the Present Time')

Unit – V: The Twentieth Century **(9 Hours)**

- Feminist Criticism [Virginia Woolf's *A Room of One's Own* (Excerpts)]
- Formalism (Boris Eichenbaum's 'Theory of the Formal Method')
- T.S. Eliot ('Tradition and the Individual Talent')

Course Summation: Practical / Textual / New Criticism; Liberal Humanism; Overview of Critical Approaches to Study Literature

Prescribed Text Books:

1. Leitch, Vincent B, et al, eds. (2010). *The Norton Anthology of Theory and Criticism*. New York: W. W. Norton.
2. Prasad, B. (2007). *An Introduction to English Criticism*. Delhi: Macmillan.

Suggested Reading:

1. Barry, Peter. (2002). *Beginning Theory.* Manchester: Manchester UP.
2. Bennett, Andrew and Nicholas Royale (2008). *Introduction to Literature, Criticism and Theory.* Delhi: Pearson.
3. Habib, M. A. R. (2008). *A History of Literary Criticism and Theory: A History*. Delhi: Blackwell Publishing.
4. J.A. Cuddon (1999). *Dictionary of Literary Terms and Theory.* London: Penguin.

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: EEL 503

Course Name: Modernism

Credits Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The course is designed to understand the advent of modernism in a larger context as an international phenomenon in life, literature and thought, new modes of expression and experimentation in form

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course.

A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Quiz exams – based on texts: 5%
  - Two 1000 word assignments – the first to be submitted before September 1st, and the second to be submitted before November 1st: 5%
  - 3000 word Term Paper to be submitted before December 1st : 10%
  - Presentations: 5%

Course Contents:

UNIT – I: W. B Yeats' Poetry **(5 Hours)**

- Introduction: Author, Genre
- The Second Coming
- Among School Children
- A Prayer for My Daughter
- Critical Analysis/Interpretation

UNIT – II: T.S. Eliot's *The Wasteland* **(9 Hours)**

- Introduction: Author, Genre
- The Text
- Critical Analysis/Interpretation

UNIT – III: Harold Pinter's play- The Birthday Party **(8 Hours)**

- Introduction: Author, Genre (Play)
- The Text
- Critical Analysis/Interpretation

Unit – IV: Virginia Woolf's novel- Mrs. Dalloway **(9Hours)**

- Introduction: Author, Genre (Novel)
- The Text
- Critical Analysis/Interpretation

Unit – V: Joseph Conrad's novel- *Heart of Darkness* **(9 Hours)**

- Introduction: Author, Genre (Novel)
- The Text
- Critical Analysis/Interpretation

Prescribed Text Books:

1. Eliot, T. S.(2009). *The Wasteland and Other Poems*. Unique Publishers, New Delhi.
2. Conrad, Joseph(2008). *Heart of Darkness*. Atlantic, New Delhi.
3. Pinter, Harold (1991). *The Birthday party.* Faber and Faber, Delhi.
4. Woolf, Virginia (2012). *Mrs Dalloway*. Viking,New Delhi.
5. Yeats, W. B. (1995). *Poems. Random House*, Noida.

Suggested Reading:

1. Lambert, D. C. (2011). *The Shifting Points of View in Virginia Woolf's Novel Mrs. Dalloway: Rooms, Corridors, and Houses.* Edwin Mellen Press, UK.
2. Michael Scott (1986). *Harold Pinter: "the Birthday Party", "the Caretaker" and "the Homecoming"*. Palgrave Macmillan, New Delhi.
3. Patel, Rajeshwari (2007). *W B Yeats and the Ideal of Unity of Being*. Stosius Inc/advent Books Division, Chicago.
4. Ramamurthi, C T Indra Lalitha (1998).*A Joseph Conrad: An Anthology of Recent Criticism*. Pencraft International, New Delhi.
5. Reeves, Gareth (1994). *T. S. Eliot's "Wasteland"*.Harvester Wheat sheaf, UK.
6. Bradbury, Malcolm and James Mcfarlane (1991).*Modernism: A Guide to European Literature 1890-1930*. Penguin India, New Delhi.

Department of Hindi & Indian Languages

School of Humanities & Languages

Name of the Department: **Department of Hindi & Indian Languages**

Name of the Programme of Study: **MA (Hindi)**

First Semester

Sr. No.	Course Code	Course Name	Credit	Code No. of Pre-requisitie/ Co-requisites if any	Full Name of the Teacher
1	HIL 440	Hindi Sahitya ka Itihaas: Aarambh se Reetikaal Tak	4	-	Dr. Sayema Bano
2	HIL 408	Hindi ki Utpatti, Vikas aur Bolian: Purani Hindi, Dakkini, Bhasha Parichay	4	-	Dr. Sayema Bano
3	HIL 410	Kahani	4	-	Mr.Chandrakant Singh
4	HIL 510	Adikaleen Sahitya	4	-	Mr.Chandrakant Singh

Third Semester

Sr. No.	Course Code	Course Name	Credit	Code No. of Pre-requisitie/ Co-requisites if any	Full Name of the Teacher
1	HIL 417	Naatak aur Rangmanch: Hindi Natak, Natya Roopantar, Other Languages on Hindi Literature	4	-	Mr.Chandrakant Singh
2	HIL 442	Pashchatya Sahitya Siddhant	4	-	Dr. Sayema Bano
3	HIL 447	Reetikavya	2	-	Mr.Chandrakant Singh
4	HIL 406	Khadi Boli ka Kavya: Hindi ki Lambi Kavitayen	2	-	Dr. Sayema Bano
5	HIL 404	Khadi Boli ka Kavya: Prakriti Kavya	2	-	Mr.Chandrakant Singh

University- wide Courses

Sr. No.	Course Code	Course Name	Credit	Code No. of Pre-requisitie/ Co-requisites if any	Full Name of the Teacher
1	HIL 423	Hindi aur Jan Sanchaar Madhyam (including New Media)	4	-	Mr Chandrakant Singh
2	HIL 434	Urdu Bhasha aur Sahitya Ka Parichayatmak Adhyayan	2	-	Dr. Sayema Bano
3	HIL 451	Hindi Geet, Navgeet aur Ghazal	2	-	Dr. Sayema Bano

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पाठ्यक्रम शीर्षक प्रकृति काव्य : खड़ी बोली का काव्य -

पाठ्यक्रम कूट संकेत - एच4 एल.आई.04 (HIL 404) श्रेय तुल्यमान :2 श्रेय

पाठ्यक्रम विषयवस्तु -

इकाई 1- खड़ी बोलीप्रकृति काव्य एक परिचय : 4 घंटे

क) प्रकृति काव्य अर्थ एवं स्वरूप :

ख) खड़ी बोली का प्रकृति काव्य उदभव एवं विकास :

ग) खड़ी बोली का प्रकृति काव्य प्रमुख प्रवृत्तियाँ :

घ) खड़ी बोली का प्रकृति काव्य कला पक्ष-भाव,कल्पना,साहित्यिक अवदान :

ङ) खड़ी बोली प्रकृति काव्य की वैश्विक चेतना

इकाई 2-महादेवी वर्मा का काव्य 4 घंटे

क) महादेवी वर्मा का काव्यगत विकास

ख) महादेवी वर्मा की कविता में वेदना तत्व-

ग) महादेवी वर्मा की कविता में स्त्री चेतना-

घ) महादेवी वर्मा का दार्शनिक चिंतन

ङ) महादेवी वर्मा की कविता में गीति तत्व-

च) महादेवी वर्मा की कविता का पाठ विश्लेषण-

इकाई 3-सुमित्रानन्दन पंत का काव्य 4 घंटे

क) सुमित्रानन्दन पंत का काव्यगत विकास

ख) सुमित्रानन्दन पंत का जीवन दर्शन

ग) सुमित्रानन्दन पंत की सौन्दर्य दृष्टि-

घ) सुमित्रानन्दन पंत की कविता में रहस्यवाद

ङ) सुमित्रानन्दन पंत की काव्य भाषा-

च) सुमित्रानन्दन पंत की कविता का पाठ विश्लेषण-

इकाई 4-जयशंकर प्रसाद का काव्य **4 घंटे**

क) जयशंकर प्रसाद का काव्यगत विकास

ख) प्रसाद का सामरस्य सिद्धान्त

ग) कामायनी प-भाव ,सौष्ठव-सौन्दर्य :क्ष पक्ष-कला,

घ) प्रसाद की कविता का पाठ विश्लेषण-

इकाई5- सूर्यकान्त त्रिपाठी निराला का काव्य **4 घंटे**

क) सूर्यकान्त त्रिपाठी निराला का काव्यगत विकास

ख) और सूर्यकान्त त्रिपाठी निराला की कविता 'मुक्त छ्न्द'

ग) सूर्यकान्त त्रिपाठी निराला की कविता में प्रकृति

घ) सूर्यकान्त त्रिपाठी निराला की कविता में वंचितों का संसार

ङ) सूर्यकान्त त्रिपाठी निराला की कविता में जागरण का स्वर

च) सूर्यकान्त त्रिपाठी निराला की कविता का पाठ विश्लेषण-

सम्भावित ग्रन्थ :

आधार ग्रन्थ :

1. महादेवी वर्मा: अग्निरेखा110002- नई दिल्ली,दरियागंज,राजकमल प्रकाशन,
2. जयशंकर प्रसाद: प्रसाद की सम्पूर्ण कविताएँ11009 -सोनिया विहार दिल्ली,नया साहित्य केंद्र ,
3. सुमित्रानन्दन पंत: सुमित्रानन्दन पंत ग्रंथावली- भाग,1 नई ,दरियागंज,राजकमल प्रकाशन, 110002-दिल्ली
4. नंदकिशोर नवल (सम्पादन) निराला रचनावली-नई दिल्ली,दरियागंज,राजकमल प्रकाशन ,1-110002

संदर्भ ग्रन्थ :

1. डॉ नामवर सिंह . छायावाद , राजकमल प्रकाशन110002-नई दिल्ली,दरियागंज,

2. डॉमयूर पेपर ,नगेन् ्दन पंत .बैक्स2-नोएडा,01301
3. डॉ 700 -कोलकाता ,रवींद्र सरणी,आनंद प्रकाशन,संपादन महादेवी वर्मा) अरविन्दाक्षन .ए . 007
4. डॉआधार प्रकाशन प्राइवेट ,निराला एक पुनर्मूल्यांकन (संपादन) अरविन्दाक्षन .ए . 1- पंचकूला,लिमिटेड34 113
5. विनोद शाही जयशंकर प्रसाद एक :पुनर्मूल्यांकन आधार, ,.लि.प्रा,प्रकाशनपंचकूला134113-हरियाणा,
6. रामदरश मिश्र छायावाद का रचनालोक नई दिल्ली,वाणी प्रकाशन,

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पाठ्यक्रम कूट40 **.एल.आई.एच : संकेत-6]HIL406]**

पाठ्यक्रम शीर्षक :खड़ी बोली का काव्य हिन्दी की लम्बी कवितायेँ:

क्रेडिट : 02**[** एक क्रेडिट व्याख्यान घंटे के 10 संगठित कक्षा गतिविधि और व्यक्तिगत सम्पर्क के , घंटे और 5 शिक्षक नियंत्रित गतिविधियाँ के / ट्युटोरियल / व्यावहारिक कार्य / प्रयोगशाला ,बराबर निर्धारि , सामूहिक कार्य , अन्य कार्य जैसे स्वतन्त्र व्यक्तिपरक कार्यत अनिवार्य , कल्पिक कार्यवै / प्रबंध लेखन इत्यादि के ,सेमीनार , पत्र लेखन-शोध , तथ्य संग्रह , पुस्तकालय कार्य , साहित्य समीक्षा [घंटे के सामान हैं 15

पाठ्यक्रमउद्देश्यपाठ्यक्रम का लक्ष्य छात्रों को हिन्दी की लम्बी कविताओं के सौंदर्यशास्त्र से परिचित : कराते हुएयथार्थ -गहन और तीक्ष्ण संवेदना के मर्म तक पहुँचाना है ताकि वे समकालीन जीवन उनकी , इन लम्बी कविताओं का महत्त्व | विश्लेषण विवेकपूर्ण और वस्तुनिष्ठ ढंग से कर सकें-का मूल्यांकन | प्रतियोगी परीक्षाओं की दृष्टि से भी अधिक है

उपस्थितिअनिवार्यतापूर्ण एवं : सुनिश्चित लाभ हेतु छात्र का सभी कक्षाओं में उपस्थित होना अनिवार्य है %75 न्यूनतम|कक्षाओं में उपस्थिति दर्ज न होने पर छात्र को परीक्षा में बैठने से वंचित किया जासकता है |

मूल्यांकन मापदंड %25 - मिड टर्म परीक्षा .क :

ख एंड टर्म [.परीक्षा %50 -

ग%25 - सतत आतंरिक मूल्यांकन [.

%5 - पुस्तकालय कार्य *

%5 - गृह कार्य *

- कक्षा परीक्षा * 10%

%5 कक्षा प्रस्तुतिया *

हिन्दी एवं भारतीय भाषा विभाग

एम [,हिन्दी] .ए.सेमेस्टर 3 -

खड़ी बोली का काव्य हिन्दी की लम्बी कवितायेँ :

कोर्स कोड -HIL 40- क्रेडिट 62

इकाई 1- हिन्दी की लम्बी कविताओं का स्वरूप और विकास 2 घंटे

- लम्बी कविताओं का स्वरूप और रचना विधान-
- लम्बी कविताओं का महत्त्व

इकाई 2- निराला 5 घंटे

- राम की शक्तिपूजा
- निराला की काव्य चेतना-

इकाई 3 -नागार्जुन और अज्ञेय 5 घंटे

- हरिजनगाथा
- नागार्जुन की काव्य चेतना-
- असाध्य वीणा
- अज्ञेय की काव्यचेतना-

इकाई 4-धूमिल 4 घंटे

- पटकथा
- धूमिल की काव्यचेतना-

इकाई 5 -मुक्तिबोध **4 घंटे**

- अँधेरे में
- मुक्तिबोधकी काव्यचेतना-

आधार ग्रन्थ -

.1अनामिका सूर्यकांत त्रिपाठी निराला -

.2चाँद का मुंह टेढ़ा है गजानन माधव मुक्तिबोध -

.3आँगन के पार द्वार सच्चिदानंद हीरानंद वात्स्यायन अज्ञेय -

.4संसद से सड़क तक सुदामा पांडे धूमिल-

.5प्रतिनिधि कवितायँ नामवर सिंह.सं -

सन्दर्भ ग्रन्थ :

1. **मुक्तिबोधर ,नंदकिशोर नवल - ज्ञान और संवेदना :ाजकमल प्रकाशन दिल्ली ,**
2. **नयी कविता और अस्तित्ववाद दिल्ली , राजकमल प्रकाशन , रामविलास शर्मा -**
3. **अज्ञेय और आधुनिक रचना की समस्या रामस्वरूप चतुर्वेदी -**
4. **समकालीन कविता का यथार्थ हरियाणा ग्रन्थ अकादमी , परमानन्द श्रीवास्तव -**
5. **निराला की साहित्य साधना नई दिल्ली , राजकमल प्रकाशन , रामविलास शर्मा -**
6. **क्रन्तिकारी कवि निराला बच्चन सिंह -**
7. **अज्ञेय औ आधुनिक रचना की समस्या रामस्वरूप चतुर्वेदी -**
8. **नागार्जुन का काव्य अजय तिवारी -**
9. **कविता यात्रा रामस्वरूप चतुर्वेदी-**

हिन्दी की उत्पत्ति,पुरानी हिन्दी: विकास औरबोलियाँ ,दक्खिनी भाषा ,परिचय

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पाठ्यक्रम कूट] 408 .एल.आई.एच : संकेत-HIL408]

पाठ्यक्रम शीर्षक ,पुरानी हिन्दी: विकास औरबोलियाँ ,हिन्दी की उत्पत्ति :दक्खिनी भाषा ,परिचय

क्रेडिट : 04 **[** एक क्रेडिट व्याख्यान संगठित कक्षा गतिविधि और व्यक्तिगत ,सम्पर्क के घंटे के 10 घंटे और 5 शिक्षक नियंत्रित गतिविधियाँ के / ट्युटोरियल / व्यावहारिक कार्य / प्रयोगशाला ,बराबर , वैकल्पिक कार्य / निर्धारित अनिवार्य , सामूहिक कार्य , अन्य कार्य जैसे स्वतन्त्र व्यक्तिपरक कार्य तथ्य , पुस्तकालय कार्य , साहित्य समीक्षासंग्रह प्रबंध लेखन इत्यादि के ,सेमीनार , पत्र लेखन-शोध , [घंटे के सामान हैं 15

पाठ्यक्रमउद्देश्यसाथ हिन्दी भाषा पाठ्यक्रम का लक्ष्य छात्रों को भाषा के महत्व और उपयोगिता के : विस्तार तथा संभावनाओं, हिन्दी के क्षेत्र | की विशेष स्थिति से परिचित कराना हैका अध्ययन करते हुए उसकी सीमाओं का मूल्यांकन करना भी पाठ्यक्रम का उद्देश्य है जिससे छात्रों में एक विशेष भाषापरंपरा - | के विश्लेषण की क्षमता विकसित होसके

उपस्थितिअनिवार्यता पूर्ण एवं सुनिश्चित लाभ हेतु छात्र का सभी कक्षाओं में उपस्थित होना अनिवार्य है : न|्यूनतम %75कक्षाओं में उपस्थिति दर्ज न होने पर छात्र को परीक्षा में बैठने से वंचित किया जासकता है |

मूल्यांकन मापदंड %25 - मिड टर्म परीक्षा [.क :

ख %50 - एंड टर्म परीक्षा [.

ग%25 - सतत आतंरिक मूल्यांकन [.

%5 - पुस्तकालय कार्य *

%5 - गृह कार्य *

- कक्षा परीक्षा * **10%**

%5 - कक्षा प्रस्तुतियां *

हिन्दी एवं भारतीय भाषा विभाग

एम.ए.[हिन्दी] प्रथम सेमेस्टर,

पाठ्यक्रम शीर्षक :हिन्दी की उत्पत्तिपुरानी हिन्: विकास और बोलियाँ,दी भाषा परिचय ,दक्खिनी ,

कोर्स कोड - HIL 408

क्रेडिट 4 -

इकाई 1 -भाषा स्वरूप और विशेषताएं ,अर्थ : घंटे 6

- भाषापरिभाषा और स्वरूप ,अर्थ -
- भाषा की विशेषताएँ
- भाषा और बोली में सम्बन्ध

इकाई 2-हिन्दी की उत्पत्ति तथा विकास घंटे 6

- हिन्दी की ऐतिहसिक पृष्ठभूमि प्राचीन भारतीय आर -्य भाषाएँ
- मध्यकालीन भारतीय आर्य भाषाएँ
- आधुनिक भारतीय आर्य भाषाएँ
- हिन्दी विस्तार ,स्वरूप ,परिभाषा ,अर्थ -

इकाई 3 -हिन्दी की उपभाषाएँ और बोलियाँ घंटे 6

- हिन्दी की प्रमुख बोलियों का परिचय
- काव्य भाषा के रूप में ब्रज और अवधी का विकास
- खड़ी बोली हिन्दी का उद्भव एवं विकास
- दक्खिनी हिन्दी तथा हिन्दी उर्दू सम्बन्ध-

इकाई 4- हिन्दी की संवैधानिक स्थिति **घंटे 10**

- राजभाषा और राष्ट्र भाषा के रूप में हिन्दी
- हिन्दी का मानक स्वरूप
- देवनागरी लिपिविशेषताएँ तथा मानकीकरण,

इकाई 5- वर्तमान परिदृश्य और हिन्दी-प्रसार के प्रयास **12 घंटे**

- हिन्दी प्रसार के प्रमुख आन्दोलन तथा संस्थान
- हिन्दी के सार्वजनिक क्षेत्र तथा प्रयोजनमूलक हिन्दी

सन्दर्भ ग्रन्थ :

1. भाषा और समाज रामविलास शर्मा :
2. भारतीय आर्य भाषा और हिन्दी सुनीति कुमार चटर्जी :
3. हिन्दी भाषा का इतिहास धीरेन्द्र वर्मा :
4. हिन्दी भाषा का संक्षिप्त इतिहास भोलानाथ तिवारी :
5. भारत के प्राचीन भाषा परिवार और हिन्दी रामविलास शर्मा :
6. भारतेंदु युग और हिन्दी भाषा की विकास परंपरा रामविलास शर्मा :
7. हिन्दी साहित्य और संवेदना का विकास रामस्वरूप चतुर :ेवेदी
8. हिन्दी भाषा संरचना के विविध आयाम रवीन्द्रनाथ श्रीवास्त :
9. हिन्दी भाषा हरदेव बाहरी :
10. भाषा विज्ञान भोलानाथ तिवारी :
11. उर्दू का आरंभिक युग शम्सुर्रहमान फ़ारूकी :
12. प्रयोजनमूलक हिन्दी रवीन्द्रनाथ श्रीवास्तव :

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पाठ्यक्रम कूट :संकेत-एच (HIL 410) 410 .एल.आई.

पाठ्यक्रम शीर्षक -कहानी **श्रेय तुल्यमान** 1) श्रेय 4 :श्रेय व्याख्यानव्यावहारिक / प्रयोगशाला या ;घंटे 10 संगठित कक्षा गतिविधि और व्यक्तिगत संपर्क के, और अन्य कार्य जैसे स्वतन्त्र व्;घंटे 5 कार्य के/ शिक्षक नियंत्रित गतिविधियों,ट्यूटोरियल,कार्ययक्तिपरक कार्य तथ्य ,पुस्तकालय कार्य,हित्य समीक्षासा,वैकल्पिक कार्य/ निर्धारित अनिवार्य,सामूहिक कार्य, | घंटे के समान है 15 इत्यादि के,प्रबंध लेखन,सेमिनार,शोधपत्र लेखन,संग्रह

पाठ्यक्रम का उद्देश्य: पाठ्यक्रम का लक्ष्य विद्यार्थियों को कहानी विधा से अवगत करना है हिन्दी | उसकी सशक्त परम्परा का निर्माण कब ? विधा के तौर पर कब प्रकाश में आई,साहित्य की कहानी विधा आज के समकालीन दौर में हिन्दी कहानी किस तरह ?और किन साहित्यिक व्यक्तियों के द्वारा हुआ इन तमाम जिज्ञासाओं के ? प्रक्रिया और उसका नयापन क्या है-उसकी रचना ?जन्मूल्यों को उठाती है जिससे कि ,के विद्यार्थियों के भीतर गंभीर साहित्यिक विवेक पैदा करना है (हिन्दी).ए.आलोक में एम | उनके भीतर रचनात्मक विवेक पैदा किया जा सके

उपस्थिति अनिवार्यता: पूर्ण एवं सुनिश्चित लाभ हेतु विद्यार्थी का सभी कक्षाओं में भागीदार होना अनिवार्य है %75 न्यूनतम |कक्षाओं में उपस्थिति दर्ज ना होने पर विद्यार्थी को परीक्षा में बैठने से वंचित किया जा सकता है |

मूल्यांकन मापदंड : - मध्यावधि परीक्षा (क %25

ख - सत्रांत परीक्षा (%50

ग- सतत आतंरिक मूल्यांकन (%25

- पुस्तकालय कार्य* %5

- प्रायोगिक कार्य* %5

- कार्य-गृह* %5

- कक्षा परीक्षा * %5

प्रस्तुतियां-कक्षा* %5

हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

मानविकी एवं भाषा संकाय

हिन्दी एवं भारतीय भाषा विभाग

सेमेस्टर3- प्रश्नपत्र,1-

पाठ्यक्रम कूट :संकेत-एच (HIL 410) 410 .एल.आई.

पाठ्यक्रम शीर्षक -कहानी **श्रेय तुल्यमान** श्रेय 4 **:**

इकाई 1-हिन्दी कहानी का उद्भव और विकास **8घंटे**

च) कहानी विधा परिचय :

छ) संस्कृत कथा साहित्य का विकास

ज) हिन्दी कहानी का जन्म और नामकरण

झ) हिन्दी कहानी का उद्भव और विकास

इकाई 2-प्रेमचंद पूर्व हिन्दी कहानी **(घंटे 8)**

छ) प्रेमचंद पूर्व हिन्दी कहानियाँ विशेषताएं ,प्रवृत्तियाँ ,परिचय :

ज) प्रेमचंद पूर्व कहानियों का विकास

झ) चंद्रधर शर्मा गुलेरी की कहानियां एवं उनका विश्लेषण

ञ) पाठ विवेचन एवं विश्लेषण चंद्रधर शर्मा गुलेरी की कहानी :

इकाई 3-प्रेमचंद युगीन हिन्दी कहानी **8घंटे**

क) प्रेमचंद युगीन हिन्दी कहानियाँ विशेषताएं ,प्रवृत्तियाँ ,परिचय :

ख) प्रेमचंद युगीन कहानियां एवं उनका विश्लेषण

ग) प्रेमचंद युगीन कहानियों का शिल्पगत विकास

घ) पाठ विवेचन एवं विश्लेषण प्रेमचंद की कहानी :

ङ) पाठ विवेचन एवं विश्लेषण प्रसाद की कहानी :

इकाई4- प्रेमचंदोत्तर हिन्दी कहानी (घंटे 8)

क) प्रेमचंदोत्तर हिन्दी कहानियाँ प्रवृत्तियाँ एवं विशेषताएं ,परिचय :

ख) प्रेमचंदोत्तर हिन्दी कहानियां एवं उनका विश्लेषण

ग) प्रेमचंदोत्तर कहानियों का शिल्पगत विकास

घ) पाठ विवेचन एवं विश्लेषण यशपाल की कहानी :

ङ) पाठ विवेचन एवं विश्लेषण अज्ञेय की कहानी :

च) पाठ विवेचन एवं विश्लेषण रेणु की कहानी :

इकाई 5-नई कहानी एवं समकालीन दशा और दिशा : (8 घंटे)

क) नई कहानीएवं विशेषताएं प्रवृत्तियाँ ,परिचय :

ख) नई कहानी विषय वस्तु एवं शिल्पगत विकास :

ग) पाठ विवेचन एवं विश्लेषण निर्मल वर्मा की कहानी :

घ) समकालीन कहानी विशेषताएँ,प्रवृत्तियाँ,परिचय :

ङ) समकालीन कहानी प्रमुख प्रश्न और संभावनाएं:

च) पाठ विवेचन एवं विश्लेषण मन्नू भंडारी की कहानी :

छ) पाठ विवेचन एवं विश्लेषण ओमप्रकाश वाल्मीकि की कहानी :

संभावित ग्रन्थ -

आधार ग्रन्थ :

1. कृष्ण कुमार (संपादन) प्रेमचंद की श्रेष्ठ कहानियाँ दिल्ली,वाणी प्रकाशन,
2. जयशंकर प्रसाद प्रतिनधि कहानियां राजकमल ,प्रकाशननई दिल्ली,
3. यशपाल भूख के तीन दिन इलाहाबाद,प्रकाशन लोकभारती,
4. गीतांजलि श्री (सम्पादन) अज्ञेय नई दिल्ली ,राजकमल प्रकाशन,कहानी संचयन :
5. फणीश्वर नाथ रेणु प्रतिनिधि कहानियांनई दिल्ली ,राजकमल प्रकाशन,
6. निर्मल वर्मा परिंदेनई दिल्ली,राजकमल प्रकाशन ,
7. मन्नू भंडारी नई दिल्ली,राजकमल प्रकाशन,प्रतिनिधि कहानियां
8. ओमप्रकाश वाल्मीकि सलाम दिल्ली ,राधाकृष्ण प्रकाशन ,

सन्दर्भ ग्रन्थ :

1. देवीशंकर अवस्थी साहित्य विधाओं की प्रकृतिदिल्ली,राधाकृष्ण प्रकाशन ,
2. परमानन्द श्रीवास्तव कहानी की रचना2012,इलाहाबाद,लोक भारती प्रकाशन,प्रक्रिया-
3. गंगाधरन वी .प्रसाद की कहानियां सामाजिक और सांस्कृतिक अध्ययन, वाणी प्रकाशन दिल्ली,
4. श्रीमती मृदुला प्रसाद अज्ञेय की कहानियों का वस्तुप्रिय साहित्य सदन,शिल्प- सोनिया विहार2010,दिल्ली,
5. देवी शंकर अवस्थी नयी कहानी1973,दिल्ली,राजकमल,प्रकृति और सन्दर्भ :
6. डॉ राय आलोक . दि नई,संस्थान प्रकाशन,सृष्टि और दृष्टि : वर्मा निर्मल कथाकार
7. राजेन्द्र यादव कहानी दिल्ली,वाणी,अभिव्यक्ति और अनुभव :

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पाठ्यक्रम शीर्षक - नाटक और रंगमंच नाट्य रूपांतर,हिन्दी नाटक :

पाठ्यक्रम कूट संकेत - एच 417 एल.आई.(HIL 417) **श्रेय तुल्यमान :**

1) श्रेय 4श्रेय

व्याख्यानव्यावहारिक / प्रयोगशाला या ;घंटे 10 संगठित कक्षा गतिविधि और व्यक्तिगत संपर्क के, व्यक्तिपरक और अन्य कार्य जैसे स्वतन्त्र;घंटे 5 कार्य के/ शिक्षक नियंत्रित गतिविधियों,ट्यूटोरियल,कार्य साहित्,वैकल्पिक कार्य/ निर्धारित अनिवार्य,सामूहिक कार्य, कार्यय समीक्षातथ्य ,पुस्तकालय कार्य, | घंटे के समान है 15 इत्यादि के,प्रबंध लेखन,सेमिनार,शोधपत्र लेखन,संग्रह

पाठ्यक्रम का उद्देश्य: एमसे अवगत कराते हुए ए स्तर के विद्यार्थियों को भारतीय नाट्य परम्परा. हिन्दी की नाट्य परम्परा के सूत्रपात से लेकर अद्यतन उसके क्रमिक विकास की विधिवत जानकारी देना है इस हेतु ,विद्यार्थियों को हिन्दी की प्रमुख साहित्यिक नाट्य कृतियों की जानकारी मिल सके | भाषा एवं नाट्य प्रयोगों के आलोक में नाट्य,कृतियों का सरल विश्लेषण अपेक्षित है । साथ ही रंगमच परिस्थि ,हिन्दी नाटकों की प्रवृत्तियोंतियों को विवेचित करना है ।

उपस्थिति अनिवार्यता: पूर्ण एवं सुनिश्चित लाभ हेतु विद्यार्थी का सभी कक्षाओं में भागीदार होना अनिवार्य है %75 न्यूनतम |कक्षाओं में उपस्थिति दर्जा ना होने पर विद्यार्थी को परीक्षा में बैठने से वंचित किया जा सकता है |

मूल्यांकन मापदंड : - मध्यावधि परीक्षा (क %25

ख - सत्रांत परीक्षा (%50

ग- सतत आतंरिक मूल्यांकन (%25

- पुस्तकालय कार्य* %5

- प्रायोगिक कार्य* %5

- कार्य-गृह* %5

- कक्षा परीक्षा * %5

प्रस्तुतियां-कक्षा* %5

हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

मानविकी एवं भाषा संकाय

हिन्दी एवं भारतीय भाषा विभाग

एम ,(हिन्दी) ए.सेमेस्टर3-

पाठ्यक्रम शीर्षक - नाटक और रंगमंच नाट्य रूपांतर,हिन्दी नाटक :

पाठ्यक्रम कूट संकेत - एच 417 एल.आई.(HIL 417)

श्रेय तुल्यमान श्रेय 4 :

पाठ्यक्रम विषयवस्तु -

इकाई 1-नाट्य परम्परा परिचय एवं क्रमिक विकास : 8घंटे

ञ) हिन्दी नाटक और रंगमंच

ट) संस्कृत नाटकों की परम्परा

ठ) लोक नाट्य परम्परा और हिन्दी रंगमंच

ड) व्यावसायिक नाटक मंडलियाँ

इकाई 2-भारतेंदु युगीन नाट्य परम्परा 8घंटे

ट) भारतेंदुयुगीन नाट्य परम्परा-

ठ) भारतेंदु की नाट्यपौराणिक नाटक,सामाजिक नाटक,प्रहसन ,चेतना-

ड) अन्धेर नगरी के नाट्य शिल्प का अध्ययन-

ढ) समकालीन दौर में का महत्व 'अन्धेर नगरी'

ण) अन्धेर नगरी पाठ विश्लेषण :

इकाई 3-प्रसाद युगीन नाट्य परम्परा 8घंटे

छ) प्रसाद के नाटक और अभिनेयता

ज) जयशंकर प्रसाद की नाट्य चेतना-

झ) प्रसाद के समसामयिक

ञ) योजना-गीत ,शैली-संवाद ,की ऐतिहासिकता 'स्कन्दगुप्त'

ट) :'स्कन्दगुप्त'पाठ विश्लेषण

इकाई 4-प्रसादोत्तर नाट्य परम्परा **8घंटे**

मोहन राकेश की नाट्यचेतना-

ङ) हिन्दी नाट्यपरम्प-रा में मोहन राकेश का योगदान

च) 'लहरों के राजहंस : 'ऐतिहासिकता और आधुनिकता का द्वन्द्व पाठ विश्लेषण ,

छ) हानूश विश्लेषण-पाठ,मूल्यांकन हानूश,व्यक्ति और सत्ता का द्वंद्व :

ज) कोणार्क का मूल्यांकनविश्लेषण-पाठ ,

इकाई5- समकालीन हिन्दी रंगमंच परिप्रेक्ष्य एवं संभावनाएं : **8घंटे**

छ) समकालीन हिन्दी नाटकों की प्रयोगधर्मिता

ज) वर्तमान समय और हिन्दी रंगमंच का सर्जनात्मक रूप

झ) पश्चिमी नाटकों का प्रदर्शन

ञ) नुक्कड़ नाटक का स्वरूप

ट) रंगमंच स्त्री छवियाँ ,दलित पात्र :

ठ) बाल रंगमंच स्थ :िति और संभावनाएं

सम्भावित ग्रन्थ :

आधार ग्रन्थ :

1. ओम प्रकाश सिंह प्रकाशन ,1-भारतेन्दु हरिश्चन्द्र ग्रंथावली भाग (सम्पादन)
   दरिया गंज,संस्थान
   नई दिल्ली 110002 -
2. जयशंकर प्रसाद नार्थ इण्डिया ,प्रसाद के सम्पूर्ण नाटक एवं एकांकी
   ,पब्लिशर्स
   सोनिया विहार110094 -दिल्ली,
3. भीष्म साहनी 110002-नई दिल्ली,राजकमल प्रकाशन,हानूश

4. मोहन राकेश 110002-नई दिल्ली,राजकमल प्रकाशन,लहरों के राजहंस
5. जगदीश चन्द्र माथुर कोणार्क 110002-नई दिल्ली,राधाकृष्ण प्रकाशन ,

संदर्भ ग्रन्थ :

1. डॉ) धीरेन्द्र शुक्ल .सम्पादन (हिन्दी नाट्य परिदृश्य110002 -नई दिल्ली,प्रकाशन संस्थान,
2. बच्चन सिंह हिन्दी नाटक 2011: आवृत्ति,दिल्ली,राधाकृष्ण प्रकाशन ,
3. गिरीश रस्तोगी अभिव्यक्ति ,भारतेन्दु और अँधेर नगरी
   विश्वविद्यालय,प्रकाशन

   मार्ग -इलाहाबाद,211004
4. रेवती रमण प्रसादऔर स्कन्द्गुप्त विश्वविद्यालय,अभिव्यक्ति प्रकाशन ,

   मार्ग -इलाहाबाद,211004
5. गिरीश रस्तोगी ,नये प्रश्न ,नयी दिशाएँ : हिन्दी नाटक और रंगमच
   ,अभिव्यक्ति प्रकाशन

   -इलाहाबाद,विश्वविद्यालय मार्ग211004
6. कृष्णानंद तिवारी नाटककार मोहनराकेश -दिल्ली,प्रिय साहित्य सदन,
   110094
7. नेमिचंद्र जैन 2010 : तीसरी आवृत्ति,दिल्ली,राधा कृष्ण प्रकाशन,रंग दर्शन

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पाठ्यक्रम : कूट संकेत- एच एल.आई. 423 (HIL 423)

पाठ्यक्रम शीर्षक : हिन्दी और जनसंचार माध्यम ('न्यू मीडिया सहित (' क्रेडिट**4** :

श्रेय तुल्यमान 1) श्रेय 4 **:**श्रेय व्याख्यान ;घंटे 10 संगठित कक्षा गतिविधि और व्यक्तिगत संपर्क के, और अन्य ;घंटे 5 कार्य के/ शिक्षक नियंत्रित गतिविधियों,ट्यूटोरियल,व्यावहारिक कार्य / प्रयोगशाला या सामूहि, कार्य जैसे स्वतन्त्र व्यक्तिपरक कार्यक कार्यसाहित्य ,वैकल्पिक कार्य/ निर्धारित अनिवार्य, | घंटे के समान है 15 इत्यादि के,प्रबंध लेखन,सेमिनार,शोधपत्र लेखन,तथ्य संग्रह,पुस्तकालय कार्य,समीक्षा

पाठ्यक्रम का उद्देश्य: पाठ्यक्रम का लक्ष्य विद्यार्थियों को जनसंचार माध्यमों मसलन प्रिन्ट मीडियाइलेक्,ट्रानिक मीडियाहिन्दी | न्यू मीडिया आदि के स्वरूप और संरचनाओं से वाकिफ कराना है, है जिससे कि रेडियो आदि की पत्रकारिता से अवगत कराना,पत्रकारिता की क्रियाविधि के साथ दूरदर्शन साथ ही,विद्यार्थियों का समकालीन दौर में ज्ञान एवं समझ के लिहाज से विकास किया जा सकेउनकी तकनीक कुशलता एवं सृजनात्मक विवेक को प्रखर बनाया जा सके |

उपस्थिति अनिवार्यता: पूर्ण एवं सुनिश्चित लाभ हेतु विद्यार्थी का सभी कक्षाओं में भागीदार होना अनिवार्य है %75 न्यूनतम |कक्षाओं में उपस्थिति दर्ज ना होने पर विद्यार्थी को परीक्षा में बैठने से वंचित किया जा सकता है |

मूल्यांकन मापदंड : - मध्यावधि परीक्षा (क %25

ख - सत्रांत परीक्षा (%50

ग- सतत आतंरिक मूल्यांकन (%25

- पुस्तकालय कार्य* %5

- प्रायोगिक कार्य* %5

- कार्य-गृह* %5

- कक्षा परीक्षा * %5

प्रस्तुतियां-कक्षा* %5

हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय

मानविकी एवं भाषा संकाय

हिन्दी एवं भारतीय भाषा विभाग

सेमेस्टर-1,यूनिवर्सिटी वाईड

पाठ्यक्रम कूट एल.आई.एच -संकेत -423)HIL 423)

पाठ्यक्रम शीर्षक : हिन्दी और जनसंचार माध्यम ')न्यू मीडिया सहित ('

क्रेडिट 4 **-**

पाठ्यक्रम विषयवस्तु -

इकाई 1-जनसंचार माध्यम परिभाषा एवं महत्व,अर्थ : 8 घंटे

ढ) जनसंचार परिभाषा एवं महत्व,अर्थ :

ण) जनसंचार की प्रक्रिया उद्देश्य,

त) जनसंचार माध्यमों की आवश्यकता एवं महत्व

थ) परम्परागत जनसंचार माध्यमों का स्वरूप

द) आधुनिक जनसंचार माध्यमों का स्वरूप और हिन्दी

इकाई 2-प्रिन्ट मीडिया स्वरूप और संरचना : 8घंटे

क) हिन्दी पत्रकारिता का ऐतिहासिक विकास

ख) रिपोर्टिंग एवं सम्पादकीय लेखन

ग) संवाद समिति और प्रेस संगठनों की स्वरूपसंरचना-

घ) प्रायोगिक कार्य दो समाचार पत्रों या पत्रिकाओं का तुलनात्मक अध्ययन :

इकाई 3-इलेक्ट्रानिक मीडिया स्वरूप और संरचना : 8घंटे

क) टेलीविजन समाचार लेखनदूरदर्शन पत्रकारिता,टेलीविजन बाज़ार ,टेलीविजन फीचर लेखन ,

ख) रेडियो समाचार लेखन रेडियो रूपक ,रेडियो वार्ता,रेडियो नाटक लेखन,

ग) इलेक्ट्रोनिक पत्रकारिता में हिन्दी इलेक्ट्रोनिक मीडिया में हिन्दी का भविष्य,

इकाई 4-न्यू मीडिया :स्वरूप और संरचना **8घंटे**

क) न्यू मीडिया अर्थ एवं स्वरूप :

ख) वीडियो पत्रकारिता उपग्रह आधारित तकनीकें ,

ग) इंटरनेटसोशल नेटवर्किंग साइट्स ,मेल-ई,

घ) नवीनतम सूचना तकनीक एवं समाज

इकाई 5-जनसंचार माध्यमों का वर्तमान स्वरूप और हिन्दी भाषा **8घंटे**

भूमंडलीकरण बाजारवाद और उत्तर आधुनिकता के दौर में हिन्दी,

क) हिन्दी पत्रकारिता और जनसंचार की शब्दावली

ख) हिन्दी भाषा के प्रसार में जनसंचार माध्यमों की भूमिका

ग) विज्ञापन द्वारा प्रसरित जनसंचार का स्वरूप

सम्भावित ग्रन्थ -

.1दत्तात्रय मुरुमकर जनसंचार और मीडिया लेखन नई दिल्ली,दरियागंज,प्रकाशन संस्थान,

.2डॉ अजय कुमार सिंह . मीडिया की बदलती भाषा इलाहाबाद,लोकभारती प्रकाशन,

.3विनोद गोदरे दिल्ली,वाणी प्रकाशन,स्वरूप एवं सन्दर्भ हिन्दी पत्रकारिता

.4सुधीश पचौरीनए जनसंचार मा (सम्पादन) अचला शर्मा,ध्यम और हिन्दी राजकमल प्रकाशन,

.5ज्योतिष जोशी साहित्यिक पत्रकारिता नई दिल्ली,वाणी प्रकाशन,

.6महिपाल सिंह देवेन्द्र मिश्र, दिल्ली,दराशाह,ब्रह्म प्रकाशन,विश्व बाजार में हिन्दी

.7डॉ पातंजलि,प्रेमचंद . आधुनिक विज्ञापन दिल्ली,वाणी प्रकाशन,

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पाठ्यक्रम कूट.एल.आई.एच : संकेत- 440 [HIL 440]

पाठ्यक्रम शीर्षक आरंभ से रीतिकाल तक : हिन्दी साहित्य का इतिहास :

क्रेडिट : 04**[** एक क्रेडिट व्याख्यान घंटे के 10 संगठित कक्षा गतिविधि और व्यक्तिगत सम्पर्क के , / व्यावहारिक कार्य / प्रयोगशाला ,बराबरट्युटोरियल घंटे और 5 शिक्षक नियंत्रित गतिविधियाँ के / , वैकल्पिक कार्य / निर्धारित अनिवार्य , सामूहिक कार्य , अन्य कार्य जैसे स्वतन्त्र व्यक्तिपरक कार्य प्रबंध लेखन इत्यादि के ,सेमीनार , पत्र लेखन-शोध , तथ्य संग्रह , पुस्तकालय कार्य , समीक्षा साहित्य घ 15ंटे के समान हैं [

पाठ्यक्रमउद्देश्यपाठ्यक्रम का लक्ष्य छात्रों को साहित्य इतिहास के जीवन्त तथा शाश्वत तत्त्वों के : संग्रहण की क्षमता से पूर्ण करना है; साथ ही छात्रों को हिन्दी साहित्य की बहुविस्तृत विरासत से परिचित कराते हुए एक विशेष साहित्यिक परंपरा के गहन अध्ययन और विश्लेषण का अवसर देना है |

उपस्थितिअनिवार्यता पूर्ण एवं सुनिश्चित लाभ हेतु छात्र का सभी कक्षाओं में उपस्थित होना अनिवार्य है : %75 न्यूनतम|कक्षाओं में उपस्थिति दर्ज न होने पर छात्र को परीक्षा में बैठने से वंचित किया जासकता है |

मूल्यांकन मापदंड %25 - मिड टर्म परीक्षा [.क :

ख %50 - एंड टर्म परीक्षा [.

ग%25 - सतत आतंरिक मूल्यांकन [.

%5 - पुस्तकालय कार्य *

%5 - गृह कार्य *

%10 - कक्षा परीक्षा *

%5 - कक्षा प्रस्तुतियां *

हिन्दी एवं भारतीय भाषा विभाग

एम , [हिन्दी] .ए.सेमेस्टर- 1

हिन्दी साहित्य का इतिहास: आरंभ से रीतिकाल तक

कोर्स कोड- HIL 440

क्रेडिट 4 -

पाठ्यक्रम विवरण -

इकाई 1-साहित्येतिहास लेखन तथा काल विभाजन 4 घंटे

- साहित्येतिहास का महत्त्व, हिन्दी साहित्य के इतिहास लेखन की परंपरा
- हिन्दी साहित्य का इतिहास सीमा निर्धारण और नामकरण,काल विभाजन :

इकाई 2 -आदिकाल 8घंटे

- हिन्दी साहित्य का आरम्भ भूमिआदिकाल की पृष्ठ ,
- सिद्ध लौकिक साहित्य ,जैन और रासो साहित्य ,नाथ ,

इकाई 3-भक्तिकाल एक- 9 घंटे

- भक्ति आन्दोलन के उदय की सामाजिक सांस्कृतिक पृष्ठभूमि-
- संत काव्यधरा प्रमुख प्रवृत्तियां एवं महत्वपूर्ण कवि ,
- सूफ़ीकाव्यधारा प्रमुख प्रवृत्तियां एवं महत्वपूर्ण कवि ,

इकाई 4 -भक्तिकाल दो- 9 घंटे

- रामभक्ति काव्यधारा प्रमुख प्रवृत्तियां एवं महत्वपूर्ण कवि ,
- कृष्ण भक्ति काव्यधाराप्रमुख प्रवृत्तियां एवं महत्वपूर्ण कवि ,
- भक्ति काल की उपलब्धियां एवं पतन के कारण

इकाई 5 -रीतिकाल **10 घंटे**

- रीति काल की सामाजिक,पृष्ठभूमि सांस्कृतिक- दरबारी संस्कृति और रीतिकाव्य
- रीतिबद्धरीतिसिद्ध तथा रीतिमुक्त का ,व्यधाराएं प्रमुख प्रवृत्तियां एवं महत्वपूर्ण कवि
- रीति साहित्य में लोकजीवन

सन्दर्भ ग्रन्थ :

1. हिन्दी साहित्य का इतिहास रामचंद्र शुक्ल :
2. हिन्दी साहित्य का इतिहास नगेन्द्र.डॉ .सं :
3. हिन्दी साहित्य का आदिकाल हजारी प्रसाद द्विवेदी :
4. हिन्दी साहित्य हजारी प्रसाद द्विवेदी : उद्भव और विकास :
5. हिन्दी साहित्य की भूमिका हजारी प्रसाद द्विवेदी :
6. साहित्य और इतिहास दृष्टि मैनेजर पाण्डेय :
7. महावीर प्रसाद द्विवेदी और हिन्दी नवजागरण रामविलास शर्मा :
8. हिन्दी साहित्य का अतीत विश्वनाथ प्रसाद मिश्र :
9. हिन्दी साहित्य का दूसरा इतिहास बच्चन सिंह ;

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पाठ्यक्रम कूट4 .एल.आई.एच : संकेत-42 [**HIL442**]

पाठ्यक्रम शीर्षक पाश्चात्य साहित्य सिद्धांत :

क्रेडिट 4 : **[** एक क्रेडिट व्याख्यान घंटे के 10 संगठित कक्षा गतिविधि और व्यक्तिगत सम्पर्क के , बराबरघंटे और 5 शिक्षक नियंत्रित गतिविधियाँ के / ट्युटोरियल / व्यावहारिक कार्य / प्रयोगशाला , , वैकल्पिक कार्य / निर्धारित अनिवार्य , सामूहिक कार्य , अन्य कार्य जैसे स्वतन्त्र व्यक्तिपरक कार्य प्रबंध लेखन इत्यादि के ,सेमीनार , पत्र लेखन-शोध , तथ्य संग्रह , पुस्तकालय कार्य , समीक्षा साहित्य [घंटे के सामान हैं 15

पाठ्यक्रमउद्देश्यपाठ्यक्रम : का उद्देश्य पाश्चात्य साहित्यसिद्धांत की सम्पूर्ण परंपरा से छात्रों को - तों से न केवल परिचित हों बल्कि उसके संग्रहणीय तत्वोपरिचित कराना है ताकि वे इन साहित्य सिद्धां ं से लाभान्वित हों तथा वर्तमान में साहित्य के मूल्यांकन की विवेकपूर्ण आलोचकीय दृष्टि उनमें विकसित हो सके |

उपस्थितिअनिवार्यता पूर्ण एवं सुनिश्चित लाभ हेतु छात्र का सभी कक्षाओं में उपस्थित होना अनिवार्य है : %75 न्यूनतम|कक्षाओं में उपस्थिति दर्ज न होने पर छात्र को परीक्षा में बैठने से वंचित किया जासकता है |

मूल्यांकन मापदंड %25 - मिड टर्म परीक्षा [.क :

ख %50 - एंड टर्म परीक्षा [.

ग%25 - सतत आतंरिक मूल्यांकन [.

%5 - पुस्तकालय कार्य *

- गृह कार्य * %5

- कक्षा परीक्षा * 10%

हिन्दी एवं भारतीय भाषा विभाग

सेमेस्टर(हिन्दी) .ए.एम , 3 -

कोर्स कोड - HIL 442

क्रेडिट4-

पाठ्यक्रम शीर्षक पाश्चात्य साहित्य सिद्धांत :

पाठ्यक्रम विवरण -

इकाई -1 पाश्चात्य साहित्य सिद्धांतएक परिचय : 6 घंटे

- पश्चिम में साहित्य की अवधारणा और स्वरूप
- पाश्चात्य साहित्य चिंतन परम्परा का ऐतिहासिक विकास

इकई 2 -पाश्चात्य साहित्य सिद्धांत -1 10 घंटे

- प्लेटो काव्य पर आरोप ,अनुकृति,प्रत्यय सिद्धांत-
- अरस्तु विरेचन सिद्धांत ,अनुकृति-
- लौंजाइनस काव्य में उदात्त की अवधारणा -

इकाई- पाश्चात्यसाहित्य सिद्धांत 3-2 6 घंटे -

- वर्ड्सवर्थ काव्य भाषा सिद्धांत -
- कोलरिज कल्पना सिद्धांत -
- क्रोंचे अभिव्यंजनावाद -

इकाई 4 -पाश्चात्यसाहित्य सिद्धांत -3 10 घंटे -

- टी वस्तुनिष्ठ समीकरण , निर्वैयक्तिकता ,परंपरा और वैयक्तिक प्रतिभा -इलियट.एस.
- आई सम्प्रेषण सिद्धांत , मूल्य सिद्धांत - रिचर्ड्स.ए.

इकाई 5 -पाश्चात्य साहित्य सिद्धांत -4 6 घंटे -

- शास्त्रीयतावादस्वच्छन्दतावाद ,, मार्क्सवाद,
- नई समीक्षाउत्तर संरचनावाद , संरचनावाद ,, विखंडनवाद,
- साहित्यिक शैली विज्ञान,उत्तर आधुनिकता इत्यादि

सन्दर्भ ग्रन्थ :

1. पाश्चात्य काव्यशास्त्र देवेन्द्र नाथ शर्मा :
2. पाश्चात्यसाहित्य चिंतन निर्मला जैन :
3. संरचनावाद गोपी चंद नारंग : उत्तर संरचनावाद और प्राच्य काव्य शास्त्र,
4. पाश्चात्य काव्यशास्त्र का इतिहास तारखनाथ बाली .डॉ :
5. भारतीय एवं पाश्चात्य काव्यशास्त्र की रूपरेखा रामचंद्र तिवारी.डॉ :
6. भारतीय एवं पाश्चात्य काव्य सिद्धांत गणपति चन्द्र गुप्त.डॉ :

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पाठ्यक्रम शीर्षक रीतिकाव्य -

पाठ्यक्रम कूट संकेत - एच4 एल.आई.47 (HIL 447) **श्रेय तुल्यमान :**

2 श्रेय 1)श्रेय

व्याख्यानव्यावहारिक / प्रयोगशाला या ;घंटे 10 संगठित कक्षा गतिविधि और व्यक्तिगत संपर्क के, और अन्य कार्य जैसे स्वतन्त्र व्यक्तिपरक ;घंटे 5 कार्य के/ शिक्षक नियंत्रित गतिविधियों,ट्यूटोरियल,कार्य साहित्,वैकल्पिक कार्य/ निर्धारित अनिवार्य,सामूहिक कार्य, कार्यय समीक्षातथ्य ,पुस्तकालय कार्य, | घंटे के समान है 15 इत्यादि के,प्रबंध लेखन,सेमिनार,शोधपत्र लेखन,संग्रह

पाठ्यक्रम का उद्देश्य : रीतिकालीन काव्यए के विद्यार्थियों को समुचित .परम्परा के विषय में एम- जिससे कि वे रीतिकालीन सन्दर्भों और तद्युगी,नकारी देना हैजान साहियिक परिस्थितियों की सही समझ ग्रहण कर सकें आमतौर पर रीतिकाल को सामन्तवादी काल कहकर खारिज करने की मंशा साहित्यिक | की विमर्श से बाहर रखने-या फिर भोगवादी काल कहकर समकालीन आलोचना,हलकों में देखी जाती है कवायद देखी जाती है । पाठ्यक्रम का उद्देश्य रीतिकालीन साहित्य की विवेचना करते हुए समकालीन समय में उसे सही तौर पर व्याख्यायित करना हैजिससे कि विद्यार्थी उसे हृदयंगम कर सकें और अपनी , साहित्यिक दृष्टि का विकास कर सकें ।

उपस्थिति अनिवार्यता: पूर्ण एवं सुनिश्चित लाभ हेतु विद्यार्थी का सभी कक्षाओं में भागीदार होना अनिवार्य है %75 न्यूनतम |कक्षाओं में उपस्थिति दर्जा ना होने पर विद्यार्थी को परीक्षा में बैठने से वंचित किया जा सकता है |

मूल्यांकन मापदंड : - मध्यावधि परीक्षा (क %25

ख - सत्रांत परीक्षा (%50

ग- सतत आतंरिक मूल्यांकन (%25

- पुस्तकालय कार्य* %5

- प्रायोगिक कार्य* %5

- कार्य-गृह* %5

- कक्षा परीक्षा * %5

प्रस्तुतियां-कक्षा* %5

हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

मानविकी एवं भाषा संकाय

हिन्दी एवं भारतीय भाषा विभाग

एम ,(हिन्दी) ए.सेमेस्टर3-

पाठ्यक्रम शीर्षक रीतिकाव्य -

पाठ्यक्रम कूट संकेत - एच4 एल.आई.47 (HIL 447)

श्रेय तुल्यमान :2 श्रेय

पाठ्यक्रम विषयवस्तु -

इकाई 1-रीतिकालीन हिन्दी काव्य नामकरण एवं स्थितियाँ : 4 घंटे-

ध) रीति का अर्थ रीति सम्प्रदाय,

न) रीतिकालीन काव्य की प्रमुख प्रवृत्तियाँ काव्य परम्परा का विकास-रीति ,

ऩ) रीतिकालीन काव्य के नामकरण का आधार

प) रीतिकालीन परिस्थितियाँ सांस्कृतिक,राजनीतिक,सामाजिक :

इकाई 2-रीति पूर्व हिन्दी रीति काव्य- 4 घंटे

त) भक्तिकालीन प्रमुख रीति कवि

थ) रहीम का रचना संसार एवं युगीन सन्दर्भ

द) रहीम ग्रंथावली का पाठ विश्लेषण-

इकाई 3-रीति काव्य : परम्परा-1 4 घंटे

ठ) रीतिकालीन कविता का विकास

ड) भूषण का रचना संसार-

ढ) रसलीन का रचना संसार-

ण) भूषण विश्लेषण-ग्रन्थावली का पाठ-

त) रसप्रबोध का पाठ विश्लेषण-

इकाई 4-रीति काव्य : परम्परा-2 **4 घंटे**

झ) बिहारी व्यक्तित्व कृतित्व,

ञ) बिहारी का रचना बिहारी की समाहार शक्ति,संसार-

ट) बिहारी विश्लेषण-रत्नाकर का पाठ-

इकाई5- :परम्परा-रीति काव्य3 **4 घंटे**

ड) रीतिमुक्त काव्य परम्परा का विकास-

ढ) घनानन्द का रचना-संसार

ण) आलम का रचना संसार-

त) घनानन्द विश्लेषण-कवित्त का पाठ-

सम्भावित ग्रन्थ :

आधार ग्रन्थ :

1. डॉ (सम्पादन) सत्य प्रकाश मिश्र . रहीम रचनावली ,'लोकभारती प्रकाशनद्वितीय ,इलाहाबाद, 2002: संस्करण
2. डॉ,'ग्रन्थावली-भूषण' विजयपाल सिंह .जय भारती प्रकाशन संस्करण .इलाहाबाद, 2007
3. सुधाकर पाण्डेय (संपादन) 'रसलीन,'ग्रन्थावली-नागरीप्रचारिणी सभाकाशी,
4. जगन्नाथ दास रत्नाकर (संपादन) बिहारीरत्नाकर-
5. भगीरथ मिश्र हिन्दी रीति साहित्य , (घनानन्द)राजकमल प्रकाशन-नई दिल्ली, 110002

संदर्भ ग्रन्थ :

1. आचार्य रामचन्द्र शुक्ल हिन्दी साहित्य का इतिहास, प्रकाशन संस्थानअंसारी , ,दरियागंज,रोड

   नई दिल्ली 002 110 -

2. डॉ बच्चन सिंह . हिन्दी साहित्य का दूसरा इतिहासअंसारी ,राधाकृष्ण प्रकाशन, ,दरियागंज,रोड

   नई दिल्ली 002 110 -

3. डॉअंसारी ,नेशनल पब्लिशिंग हाउस,की भूमिका नगेन्द्र रीतिकाव्य . ,दरियागंज,रोड

   नई दिल्ली 002 110 -

4. भवदेव पाण्डेय आलमनई ,फ़ीरोज़शाह मार्ग,रवीन्द्र भवन,साहित्य अकादेमी , 002 110-दिल्ली
5. सत्यदेव त्रिपाठी मध्यकालीन कविता के सामाजिक सरोकार, शिल्पायन 110032-दिल्ली,शाहदरा,

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पाठ्यक्रम कूट :संकेत-एच) 510 .एल.आई.HIL (510

पाठ्यक्रम शीर्षक -आदिकालीन साहित्य **श्रेय तुल्यमान** 1) श्रेय 4 :श्रेय व्याख्यान,संगठित कक्षा गतिविधि और व्यक्तिगत संपर्क के घंटे 10; प्रयोगशाला या व्यावहारिक / कार्य,ट्यूटोरियल,शिक्षक नियंत्रित गतिविधियों घंटे 5 कार्य के/;और अन्य कार्य जैसे स्वतन्त्र व्यक्तिपरक कार्य ,सामूहिक कार्य,निर्धारित अनिवार्य वैकल्पिक कार्य/,साहित्य समीक्षा,पुस्तकालय कार्य,तथ्य संग्रह,शोधपत्र लेखन,सेमिनार,प्रबंध लेखन,इत्यादि के घंटे के समान है 15|

पाठ्यक्रम का उद्देश्य: पाठ्यक्रम का लक्ष्य विद्यार्थियों को हिन्दी साहित्य के उद्भव से परिचित कराना है | हिन्दी साहित्य की शुरुआत के समय मौजूद विभिन्न चिन्ताधाराओं के विषय में जानकारी प्रदान करना है, जिससे कि साहित्यिक समझ को विकसित किया जा सके | यही नहीं हिन्दी साहित्य के उद्गम और उसकी गौरवशाली परम्परा के दाय से एम के विद्यार्थियों को परिचित कराया जा सके (हिन्दी).ए.|

उपस्थिति अनिवार्यता: पूर्ण एवं सुनिश्चित लाभ हेतु विद्यार्थी का सभी कक्षाओं में भागीदार होना अनिवार्य है | न्यूनतम %75कक्षाओं में उपस्थिति दर्ज ना होने पर विद्यार्थी को परीक्षा में बैठने से वंचित किया जा सकता है |

मूल्यांकन मापदंड : - मध्यावधि परीक्षा (क %25

ख - सत्रांत परीक्षा (%50

ग- सतत आतंरिक मूल्यांकन (%25

- पुस्तकालय कार्य* %5

- प्रायोगिक कार्य* %5

- कार्य-गृह* %5

कक्षा *परीक्षा - %5

प्रस्तुतियां-कक्षा* %5

हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

मानविकी एवं भाषा संकाय

हिन्दी एवं भारतीय भाषा विभाग

सेमेस्टर1-, प्रश्नपत्र 4 -

पाठ्यक्रम कूट :संकेत-एच) 510 .एल.आई.HIL (510

पाठ्यक्रम शीर्षक -आदिकालीन साहित्य **श्रेय तुल्यमान** श्रेय 4 **:**

पाठ्यक्रम विषयवस्तु -

इकाई 1-हिन्दी साहित्य का आदिकाल विभाजन एवं नामकरण-काल :

4)घंटे(

क) हिन्दी साहित्य का आदिकाल एक परिचय :

ख) हिन्दी साहित्य के आदिकाल की समय सीमा-

ग) आदिकाल के नामकरण की समस्या

इकाई 2-आदिकालीन पृष्ठभूमि एवं परिस्थितियाँ **6 घंटे**

क) सामाजिक परिस्थितियाँ

ख) राजनैतिक परिस्थितियाँ

ग) आर्थिक परिस्थितियाँ

इकाई 3-सिद्ध नाथ एवं जैन साहित्य,

5 घंटे

क) सिद्ध एवं नाथ साहित्य प्रवृत्तियाँ :,विशेषताएं

ख) सिद्ध एवं नाथ साहित्य प्रमुख कवि :

ग) जैन साहित्य चरित काव्य :,विशेषताएं

घ) जैन साहित्य प्रमुख कवि :

इकाई 4-रासो काव्य परम्परा **11 घंटे**

रासो काव्य परम्परा एक परिचय :

क) रासो काव्य प्रवृत्तियाँ :,विशेषताएं

ख) प्रमुख रासो काव्य एवं कवि

ग) पृथ्वीराज रासो की प्रामाणिकता एवं काव्य सौष्ठव-

घ) पाठ विवेचन चंद वरदाई :- पृथ्वीराज रासउ सं माताप्रसाद गुप्त (संयोगिता परिणय)

साहित्य सदन,चिरगाँव झांसी

इकाई 5-लौकिक साहित्य एवं श्रृंगार काव्य परम्परा **14 घंटे**

क) लौकिक साहित्य एवं श्रृंगार काव्य प :ंरमुख प्रवृत्तियाँ एवं विशेषताएं

ख) अमीर खुसरो - अमीर खुसरो कृतित्व एवं प्रमुख रचनाएं,व्यक्तित्व:

ग) पाठ विवेचन (संकलन भोलानाथ तिवारी) अमीर खुसरो और उनका हिन्दी साहित्य :

घ) विद्यापति अपरूप के कवि,भक्ति एवं श्रृंगार,प्रकृति वर्णन,कृतित्व :

ङ) पाठ विवेचन : विद्यापति पदावली (सं रामवृक्ष बेनीपुरी)

च) रासक का विकास एवं सन्देश रासक

छ) सन्देश रासक शिल्प-वर्णन एवं भाषा-ऋतु ,रचनाकाल,कवि,कृति :

ज) पाठ विवेचन (आचार्य हजारी प्रसाद द्ववेदी एवं विश्वनाथ त्रिपाठी - सम्पादन) सन्देश रासक :

संभावित ग्रन्थ -

आधार ग्रन्थ :

1. चंद वरदाई - पृथ्वीराज रासउ सं माताप्रसाद गुप्त (णयसंयोगिता परि)
   साहित्य सदन,चिरगाँव झांसी
2. अमीर खुसरो - अमीर खुसरो और उनका हिन्दी साहित्य (संकलन भोलानाथ तिवारी)
   प्रभात प्रकाशन 110002- नई दिल्ली ,
3. ÌuÉ±ÉmÉÌiÉ - ÌuÉ±ÉmÉÌiÉ पदावली (सं रामवृक्ष बेनीपुरी)लोक भारती ,
   1-इलाहाबाद,प्रकाशन

4. अब्दुल रहमान आचार्य हजारी प्रसाद द्ववेदी एवं विश्वनाथ त्रिपाठी - सम्पादन) सन्देश रासक - (

राजकमल प्रकाशन 002 110 - नई दिल्ली ,

सन्दर्भ ग्रन्थ :

.5आचार्य रामचंद्र शुक्ल हिन्दी साहित्य का इतिहास,काशी नागरी प्रचारिणी सभा काशी,1969

.6बच्चन सिंह हिन्दी साहित्य का दूसरा इतिहास,राधाकृष्ण प्रकाशन, 1996

.7हजारी प्रसाद हिन्दी साहित्य का आदिकाल,पटना,1961

.8ब्रजरत्नदास (सम्पादन) खुसरो की हिन्दी कविता वाराणसी,नागरी प्रचारिणी सभा ,

..9 डॉलोक भारती प्रकाशन,शिवप्रसाद सिंह .,इलाहाबाद,1976

.10हजारी प्रसाद Ì²uÉåSÏ (सम्पादन) नामवर सिंह, संक्षिप्त पृथ्वीराज रासो, साहित्य भवन प्रा .लि . इलाहाबाद

.11डॉवा .सुदेव सिंह (सम्पादन) आदिकालीन काव्य वाराणसी,विश्व विद्यालय प्रकाशन ,

School of Journalism Mass Communication &New Media

Department of Journalism & Creative Writing

School of Journalism, Mass Communication & New Media

Name of the Department: **Department of Journalism & Creative Writing**
Name of the Programme of Study: **MA (Journalism & Creative Writing)**

Courses Semester -I

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite/ Co-requisites if any	Teacher
1.	JCW 404	News Report Writing	4	NA	Dr. M.Rabindranath
2.	JCW 407	Media Management and Newspaper Production	4	-	Dr. ArchnaKatoch
3.	JCW 405	Computer Applications for Journalism	4	-	Mr. Harikrishnan B.
4.	JCW 515	Art & Culture Journalism	4	-	Mr. Harikrishnan B.
5.	JCW 513	Business Journalism	4	-	Mr. Harsh Mishra
6.	JCW 505	Advertising	4	-	Mr. Harsh Mishra

Courses Semester -III

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite/ Co-requisites if any	Teacher
1.	JCW 504	Public Relations	4	NA	Dr.M.Rabindranath
2.	JCW 406	Feature and Creative Writing	2	-	Dr. ArchnaKatoch
3.	JCW 529	Editorial Writing	2	-	Dr. ArchnaKatoch
4.	JCW 502	Photo Journalism	4	-	Mr. Harikrishnan B.
5.	JCW 507	Film Appreciation	2	-	Mr. Harikrishnan B.
6.	JCW 524	Education Journalism	2	-	Mr. Harikrishnan B.
7.	JCW 519	Sports Journalism	4	-	Mr. Harsh Mishra

University Wide Courses

The students of other Programmes of Study may choose any course(s) offered by the Department/school. However, for the guidance of the students of other departments, a tentative list of courses which can be taken, keeping into consideration the level of difficulty, is given as under:

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite / Co-requisites if any	Teacher
1.	JCW 404	News Report Writing	4	NA	Dr.M.Rabindranath
2.	JCW 504	Public Relations	4	NA	Dr.M.Rabindranath
3.	JCW 402	Development Communication	4	-	Dr. ArchnaKatoch
4.	JCW 408	Media and Gender	2	-	Dr. ArchnaKatoch
5.	JCW 406	Feature and Creative Writing	2	-	Dr. ArchnaKatoch
6.	JCW 409	Business and Economic Journalism	2	-	Mr. Harsh Mishra
7.	JCW 523	Media and Social Issues	2	-	Mr. Harsh Mishra

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Course Code: JCW 402

Course Name: Development Communication

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The Course is designed to

- Discuss the various concepts and theories of development, and to understand how communication plays a vital role in the process of development.
- Enable the students to analyses different paradigms and approaches in development communication.
- Discuss the role and impact of new communication technologies on development.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
    - Class Participation: 5%
    - Writing skills: 5%

- Home Assignments: 10%
- Presentation: 5%

Course contents:

UNIT I: Development Communication –An Introduction. (8 hours)

- Meaning and concept of development
- Process and models of development
- Theories and approaches to development
- Problems and issues in development
- Development communication: Concept and definition
- Growth of development communication
- Strategies in development communication

UNIT II: Development Support Communication. (8hours)

- Role of communication in health nutrition
- Women's and child development
- Family welfare and population communication
- Education and society
- Environment and development
- Democratization and decentralization: Democracy and pluralistic society
- Panchayati Raj and promotion of participation society

UNIT III: Developmental Agencies and Communication Technologies (8hours)

- Rural development and agricultural extension
- Governmental, semi-governmental and non-governmental organizations
- Information dissemination in rural areas - Role of print, electronic, traditional media
- Participatory communication for social change
- Use of information and communication technologies for development
- E-governance

UNIT IV: Traditional Media and Community Radio for Development (8hours)

- Folk & traditional media for development communication
- NGOs and folk media
- Integrated use of traditional and communication media with modern technology driven media

- Community radio: Supporting local voices through the airwaves
- Political economy of mass media and development

UNIT V: Communication in the Changing World. (8hours)

- Digital divide and digital opportunities: Issues and challenges for ICT policies in development
- International institution, UN and its agencies.
- Transnational media organizations
- UNESCO approach of development communication
- UNESCO's policy interventions

Text Books:

1. Prasad, Kiran (2009). Communication for Development: Reinventing Theory and Action (in 2 Vols.). B.R. Publishing Corporation, New Delhi.
2. *E.M. Rogers (1971). Communication and Development: A Cross-Cultural Approach. New York, Free Press.*
3. *Hamid Mowlana and Lawrie J. Wilson (1990). The Passing of Modernity: Communication and the Transformation of Society. New York and London, Longman.*

Additional Readings:

1. Srinivas Melkote and H. Leslie Steevs (2001). Communication for Development in the Third World 2nd Edition. Sage, New Delhi.
2. Joshi, P.C. (2002). Communication and National Development. Anamika Publishers & Distributors, New Delhi.
3. Jan Servaes, Thomas Jacobnson and Shirley White (1996). Participatory Communication for Social Change. Sage, New Delhi.
4. *McLuhan, Marshall (1964). Understanding Media. New York: Mc Graw-Hill.*
5. *McQuail, Denis (2002). Mass Communication Theory. London: Sage.*
6. *Schramm, Wilbur (1971) .The Process and Effects of Mass Communication. Urbana: University of Illinois Press.*

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Course Code: JCW 405

Course Name: Computer Applications for Journalism

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To enable students to handle different computer applications needed for journalists
- To develop computer and project management skills necessary to be successful in whatever aspect of the journalism industry.
- To enable students to design newsletters, tabloids and web pages with the help of different software applications
- To develop special skills needed for computer assisted reporting

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Blogging : 10%

- Home Assignments: 5%
- Page Makeup : 5%

Course Contents:

UNIT- I: Page make up applications (7 Hours)

- Introduction to page make up applications
- Quark Express, Indesign, Adobe Pagemaker
- Designing a newsletter on a page make up software

UNIT - II: Spreadsheet applications for Journalists (9 Hours)

- Finding news stories from data
- Introduction to Spreadsheet applications
- Analysing data to find out trends and new angles
- Using Microsoft Excel to analyse data
- presenting quantitative data for media audience

UNIT - III: Photo editing applications (7 Hours)

- Basics of photo editing
- Photo editing for the print media
- Introduction to photo editing applications
- Photoshop/Picasa/ Gimp
- Cropping an image
- Adjusting brightness and contrast of an image
- Other photo editing

UNIT- IV: Computer Assisted Reporting (7 Hours)

- What is Computer assisted reporting
- Internet sources for CAR in India
- Using search engines effectively as a journalist
- Locating relevant info on web
- Deep searching using Google or other meta search engines
- Social Media as a news source
- Finding out and keeping in touch with sources on web

UNIT- V: Blogging Platforms (10 Hours)

- Blog as a platform of journalistic expression
- Different blogging platforms
- Starting a blog
- Managing a blog
- Finding readers
- Monitoring the traffic
- Monetizing

Students have to bring out a two page tabloid-size newspaper as a group assignment.
Students have to design a magazine cover, start a blog as part of the course activities.

Prescribed Text Books:

1. Harrower, Tim (2007). The Newspaper Designers Handbook, Sixth Edition, McGraw-Hill Education

2. Blanter, David. (2007). Real World QuarkXPress 7, Peachpit Press

3. Houston, Brant(2003) Computer Assisted Reporting: A Practical Guide, Bedford/St. Martin's Publishers

Suggested Additional Readings:

1. Stefanac, Suzanne (2006). Dispatches from Blogistan: A travel guide for the modern blogger, New Riders

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Course Code: JCW 406

Course Name: Feature and Creative Writing

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Provide an opportunity to develop writing skills in the gathering and creation of in-depth features.
- The students will be given practical assignments to drill the skills needed for writing different types of features.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Writing skills: 10%
  - Home Assignments: 5%
  - Role Play: 5%

Course Contents:

UNIT- I: General Principles of Writing (4 Hours)

- Importance of writing, Types of writing: creative and non-creative, The substance of writing, Some tips to an aspiring writer
- Qualities of creative writing, Most important norms of creative writing
- Authorial Voice, Structure of material
- Dramatization of ideas, Preparing a press copy

UNIT- II: Feature Writing (4 Hours)

- Definition and characteristics of a feature
- Classifications of features, Qualities of a feature writer.
- Definition and presentations: some do's and don'ts
- Difference between features, articles and news

UNIT - III: Process of Writings Features (4Hours)

- Identifying significant topic, Collection of material
- Writing the feature, Types of feature leads
- Editing and organization
- Use of appropriate style and language

UNIT - IV: Interview and Feature Writing (4 Hours)

- Tools and techniques of writing
- Importance and uses of Interview in feature writing
- Profiles of personalities
- Writing reviews of books and films

UNIT- V: Writing Feature for other Media (4 Hours)

- Magazine feature writing
- Online Features

- Benefits of feature writing
- Varieties of the feature stories and examples

Text Books:

1. Garrison, Bruce (2010). Professional Feature Writing. Routledge publisher.

2. Kamath, M. V. (1992). Journalist's Handbook. Vikas Publishing House, New Delhi.

Additional Readings:

1. Aggarwal, VirBala (2006). Essentials of Practical Journalism. Concept Publishing Company, New Delhi.

2. Friedlander, Edward Jay & Lee, John (2010). Feature Writing: The pursuit of Excellence. Allyn& Bacon Publisher.

3. Wheeler, Sharon (2009). Feature Writing For Journalists. Taylor & Francis Group.

4. Johanson, Carla (2004). 21st Century Feature Writing. Allyn & Bacon.

5. IGNOU Notes.

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Course Code: JCW 407

Course Name: Media Management and Newspaper Production

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The Course is designed to

- Understand the principles and functions of media management.
- Describe the various types of ownership patterns of the press industry and its working.
- Discuss the organisational structures, economics and marketing of media-management.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
    - Class Participation: 5%
    - Writing skills: 5%
    - Home Assignments: 10%
    - Presentation: 5%

Course contents:

UNIT I: Principles and Functions of Management (8 hours)

- Management : concept and scope
- Principles of management
- Functions of management
- Media as an industry and profession
- Newspaper management
- Changing nature of newspaper management

UNIT II: Newspaper Ownership and Organisational Structures (8hours)

- Newspaper ownership
- Various forms of newspaper ownership
- Sole proprietorship
- Partnership
- Company
- Cooperatives
- Trusts and societies
- Newspapers ownership in India

UNIT III: Organizational Structure of a Newspaper and its Working (8hours)

- Functions and co-ordinations of different departments of a newspaper: Editorial department
- Advertising department
- Circulation department
- Printing and production department
- Changing role of editorial and other department
- Problems of small and medium newspapers
- Circulation and readership of newspapers in India
- Press Commissions

UNIT IV: Government Media Organisations (8hours)

- Organisational structure of All India Radio
- Organisational structure of Doordarshan
- The government's print and related media organisations
- Government -run film medium organisations
- Government publicity organisations
- Government-funded centres for media learning

UNIT V: Economics and Marketing of Media-management (8hours)

- Economics and marketing of newspapers
- Pricing and price-wars
- Brand promoting(space/time, circulation)
- Reach
- Promotion
- Market survey techniques
- Foreign equity in Indian media
- Changing media management patterns and news ownership systems in the post globalization era

Text Books:

- Kamath, M. V. (1992), Journalist's Handbook, Vikas Publishing House, New Delhi.
- Aggarwal, VirBala and Gupta, V.S. (2001), Handbook of Journalism and Mass Communication, Concept Publishing Company, New Delhi.
- Aggarwal, VirBala (2006), Essentials of Practical Journalism, Concept Publishing Company, New Delhi.

Additional Readings:

- Kothari, Gulab (1995). Newspaper Management in India. Intercultural Open University, The Netherlands.
- Kamath, M. V. (2009), professional Journalism, Vikas Publishing House, New Delhi.
- I. A. guide for Newspapers, R. N.I. New Delhi.
- Lingam TNM Circulation Problems in Indian Newspaper PII, New Delhi.
- IGNOU notes.

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Course Code: JCW 502

Course Name: Photojournalism

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To prepare students for a professional career as photojournalists and photo-editors in the media organizations.
- To develop an understanding about how visuals play a major role in the communication process and how to create potent visuals.
- Enable them to understand and acquire skills needed for producing and fine tuning visuals for different media platforms like Print media and Web.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Group Discussion: 10%
  - Home Assignments: 5%
  - Role Play: 5%

Course Contents:

UNIT- I: Basics of Photography (6 Hours)

- What is photography? – Nature and scope of photography
- Evolution of photography and photo journalism
- photography as an art form
- Branches of photography

UNIT - II: Equipment and technology (10 Hours)

- Functioning of a camera
- Types of cameras
- Types of lenses
- Flashes
- Controlling aperture and shutter speed
- Creative usage of exposure
- depth of field
- Lighting techniques
- Three-point lighting

UNIT - III: Techniques of photography (8 Hours)

- Composing pictures
- Elements of composition
- Basics of photo editing
- introduction to photo editing software
- Printing or displaying output

UNIT- IV: Basics of Photojournalism (11Hours)

- Photojournalism- scope and evolution
- Equipment used by photojournalists
- Skills of photojournalism
- Covering different beats
- Photo-series and photo-essays
- Writing captions
- Photojournalism in the convergence era

UNIT- V: Photojournalism and ethical issues (5 Hours)

- Ethics in photo journalism
- Stereotyping and news photographs
- Intellectual Property Rights
- Creative Commons

Prescribed Text Books:

4. Sontag, Susan.(1973), *On Photography*, Rosetta Books, LLC
5. Kobre, Kenneth (2010), *Photojournalism: The professionals' Approach*, Sixth Edition. Focal Press
6. Peterson, Bryan F.(2003).Learning to see creatively: design, color & composition in photography, Amphoto books

Suggested Additional Readings:

1. Krause, Jim. Photo Idea Index. New York, NY: How, 2009
2. Ang, Tom. Fundamentals of Photography: The Essential Handbook for Both Digital and Film Cameras. New York, NY: Knopf, 2008.

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Course Code: Media and Gender

Course Name: JCW 408

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Understand gender as a social construct and its application to understand various social phenomena.
- Develop familiarity on the current social problems related to gender and development.
- To impart the basic journalistic skills and techniques to the students in the critical areas of gender inequalities and make them communicate effectively through different media for women empowerment.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
    - Class Participation: 5%
    - Group Discussion: 10%
    - Home Assignments: 5%
    - Role Play: 5%

Course Contents:

UNIT- I: Gender and Communication (4 Hours)

- What is Gender? Gender Inequality and Sexism
- Patriarchy - Social structure and social institutions, Feminism
- Communication, Relation between gender and media
- Role of Media in a Society. Sourcing and reporting of news.

UNIT - III: Status of Women in Society (4 Hours)

- Gender inequalities and its causes in India: education, health conditions
- Violence against women
- Economicopportunities, political participation
- Roles of social movements and media for women rights

UNIT-III: Important Constitutional and Legal Provisions for Women (4 Hours)

- Universal declaration of human rights
- Constitutional provisions in India
- Legal provisions in India
- Special initiatives for women, India's sexual assault laws

UNIT- IV: Gender Representations in the Media **(04 hours)**

- Gender equality/ inequality in the news stories, gender stereotypes
- Portrayal of women in the media
- Portrayal of women on television, advertisements
- Print media and women issues

UNIT- V: Women, Media and Empowerment **(04 hours)**

- Women in journalism and media profession
- Gender equality/inequality in media organisations
- Media as a tool in the crusade for women's education
- Media and ICT: Catalyst for the empowerment of women

Text Books:

1. Pilcher, J. & Whelehan, I. (2004). 50 key Concepts in Gender Studies, Sage Publication, New Delhi.
2. Basu, A. & Jefferey, P. (2004). Appropriating Gender, Routledge, London.
3. Kataria, Pooja, (2007), Women and Media, Regal Publications, New Delhi.

Additional Readings:

1. Mathur, K. (2004). Countering Gender Violence, Sage Publication, New Delhi.
2. IGNOU, (2008). Mass Media and Contemporary Social Issues, Communication Division, New Delhi.
3. Hindi and English Newspapers and Journals.

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COURSE CODE: JCW 513

COURSE NAME: Business Journalism

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of journalistic writing work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work/ house journals; obligatory/ optional work placement; literature survey/ library work; writing of papers/ presentations/ seminars, etc.)

Course Objectives: The Course is designed to:

- Enable the students to learn to research and write on economy and business.
- Assist the students in understanding the basic concepts related with business and economy.
- Equip students with the knowledge and skills required to cover economy, businesses, financial markets as well as relatedsocio-economic issues such as poverty, unemployment, sustainable development, and consumer affairs.
- Inculcate explanatory writing skills in the students.
- Enable the students to appreciate the role of Business Journalism in growth and advancement of developing economies.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25% i.e. 25 Marks out of 100

- Surprise Progress Review Tests (Two) : 10 marks (The tests may be oral or written)
- Presentation: 5 marks
- Assignments: 10

Course Contents:

UNIT I: Business Journalism: An Introduction (08 hours)

- An introduction to journalism.
- Business Journalism: Concept, Significance and Scope.
- Origin, Growth and Development of Business Journalism.
- Objectives of Business Journalism.
- Key attributes of a Business Journalist.
- Role and Responsibilities of a Business Journalist.
- Business Journalism in Emerging Economies.
- Business Journalism Ethics.

UNIT II: Important Business Concepts (12 hours)

- Economics: Concept and Definitions.
- Market: Meaning and Types.
- National Income: Meaning and Concepts.
- Money, Banking and Inflation.
- Budgeting: Monetary Policy and Fiscal Policy& Deficit Financing.
- Capitalism, Socialism and Mixed Economy.
- Globalization, Liberalization, International Trade and Balance of Payments.
- Economic Planning – Meaning and Types. 12th Five Year Plan.
- Public Sector Enterprises vs. Private Sector Enterprises.
- Large, Medium, Small and Micro Sector Enterprises.
- Understanding Company Balance Sheets
- Privatization, FII and FDI.
- Infrastructure and its Relevance.

UNIT III: Indian Business Environment (04 hours)

- Key Industries in India.
- Government Policies & Legislations and their Impact on Businesses.
- Key Industry Associations in India: CII, ASSOCHAM and FICCI.
- Major Challenges faced by the Indian Industries.
- Role of Indian Industries in Growth and Development of the Country.
- Corporate Governance Practices in India: A Critical Appraisal.

UNIT IV: Financial Markets (08 hours)

- Fundamentals of Stock Markets.
- Indian and International Stock Markets: An Overview
- Initial Public Offerings. (IPO)
- Mergers and Acquisitions.
- Mutual Funds.
- Securities and Exchange Board of India.

UNIT V: Writing Business News Stories (08 hours)

- Basic Skills Required for Writing Business News Stories.
- Language of Business Journalism.
- Sources for Gathering Business News.
- Reporting the Performance of a Business Entity.
- Covering Financial Markets.
- Major Challenges confronting a Business Journalist.

Prescribed Text Books:

- Roush, C. 2004. Show me the money. Writing business and economics stories for mass communication. Mahwah, N.J. & London: Lawrence Erlbaum Associates.
- K.K. Dewett, Modern Economic Theory, (Edition 2010), S. Chand & Company Ltd.

Suggested Additional Reading:

- Stiglitz, J.E. 2006. Making globalization work. London: Allen Lane.
- Vaitilingham, R. 2001. The Financial Times guide to using the financial pages, London: Prentice Hall.
- Jay Taparia, (2004), Understanding Financial Statements: A Journalist's Guide, Marion Street Press, 2004.

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[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: JCW 405

Course Name: Computer Applications for Journalism

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To enable students to handle different computer applications needed for journalists
- To develop computer and project management skills necessary to be successful in whatever aspect of the journalism industry.
- To enable students to design newsletters, tabloids and web pages with the help of different software applications
- To develop special skills needed for computer assisted reporting

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
   - Class Participation: 5%
   - Blogging : 10%
   - Home Assignments: 5%
   - Page Makeup : 5%

Course Contents:

UNIT- I: Page make up applications (7 Hours)

- Introduction to page make up applications
- Quark Express, Indesign, Adobe Pagemaker
- Designing a newsletter on a page make up software

UNIT - II: Spreadsheet applications for Journalists (9 Hours)

- Finding news stories from data
- Introduction to Spreadsheet applications
- Analysing data to find out trends and new angles
- Using Microsoft Excel to analyse data
- presenting quantitative data for media audience

UNIT - III: Photo editing applications (7 Hours)

- Basics of photo editing
- Photo editing for the print media
- Introduction to photo editing applications
- Photoshop/Picasa/ Gimp
- Cropping an image
- Adjusting brightness and contrast of an image
- Other photo editing

UNIT- IV: Computer Assisted Reporting (7 Hours)

- What is Computer assisted reporting
- Internet sources for CAR in India
- Using search engines effectively as a journalist
- Locating relevant info on web
- Deep searching using Google or other meta search engines
- Social Media as a news source
- Finding out and keeping in touch with sources on web

UNIT- V: Blogging Platforms (10 Hours)

- Blog as a platform of journalistic expression
- Different blogging platforms
- Starting a blog
- Managing a blog
- Finding readers
- Monitoring the traffic
- Monetizing

Students have to bring out a two page tabloid-size newspaper as a group assignment.
Students have to design a magazine cover, start a blog as part of the course activities.

Prescribed Text Books:

1. Harrower, Tim (2007). The Newspaper Designers Handbook, Sixth Edition, McGraw-Hill Education

2. Blanter, David. (2007). Real World QuarkXPress 7, Peachpit Press

3. Houston, Brant(2003) Computer Assisted Reporting: A Practical Guide, Bedford/St. Martin's Publishers

Suggested Additional Readings:

1. Stefanac, Suzanne (2006). Dispatches from Blogistan: A travel guide for the modern blogger, New Riders

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COURSE CODE: JCW505

COURSE NAME: Advertising

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 20 hours of teacher-led / independent workload such as Conceptualizing and Designing Individual Advertisements & Advertising Campaigns for different media / Presentations / Writing Papers / Seminars / Conferences / Workshops, etc.)

Course Objectives: The Course is designed to:

- Enable the learners to understand the fundamentals of Advertising.
- Familiarize the learners with theoretical and practical aspects of Advertising.
- Enable the students to understand the key ingredients of effective advertising.
- Enable the learners to appreciate diverse views on perception and reception of advertising messages by the audiences.
- Encourage the students to explore the emerging trends in the field of advertising so that they may grasp the intricacies of modern advertising in a better manner.
- Expose the students to the ethical issues pertinent to the trade and practice of Advertising.
- Apprise the learners of the emerging challenges in the field of Advertising.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to derive maximum benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25% i.e. 25 Marks out of 100

- Surprise Progress Review Tests: **15 marks** (The tests may be oral or written and may be carry different marks)
- Assignments: **10 marks** (May Conceptualizing and Designing Individual Advertisements or Complete Advertising Campaigns for different media, Presentations, Preparation of Written Reports, etc.)

Course Contents:

UNIT I: Introduction to Advertising (08 hours)

- What is advertising?
- Origin, Evolution and Growth of Advertising
- Advertising: Key Concepts
- The Key Players in the Advertising Arena
- Advertising Agencies – Structure and Functioning

UNIT II: Types of Advertising (08 hours)

- Classification of Advertising based on Geographical Spread
- Classification of Advertising based on Target Audiences
- Classification of Advertising based on Media
- Classification of Advertising based on Appeals – Emotional vs. Logical
- Product Advertising – Pioneering, Competitive and Retentive
- Retail Advertising
- Subliminal Advertising
- Direct Response Advertising
- Public Service Advertising

UNIT III: Roles and Functions of Advertising (08 hours)

- Role of Advertising in Integrated Marketing Communications
- Role of Advertising in Sales Promotion
- Role of Advertising in Creation and Management of Brands
- Economic Role of Advertising
- Societal Role of Advertising
- Ethical Perspectives on Advertising

UNIT IV: Creativity in Advertising (08 hours)

- Creativity in the context of Advertising
- Perspectives on Creativity in Advertising
- Creative Strategy
- Aspects of Creative Strategy
- Planning and Managing Creative Strategy
- Psychographics and Creativity in Advertising
- Determinants of Creativity in Advertising

UNIT V: Producing Effective Advertisements (08 hours)

- Understanding the Audiences
- Gathering Intelligence and Insights through Strategic Research
- Copywriting – The Backbone of Effective Advertising
- Advertising Planning and Budgeting
- Evaluating Effectiveness of Advertisements

Prescribed Text Books:

- Wells, W. D., Burnett, J., & Moriarty, S. (2012). Advertising: Principles and Practice. India: Pearson.
- Chunawalla, S. A., &Sethia, K. C. (2011). Foundations of Advertising: Theory and Practice. Mumbai: Hiamalaya Publishing House Pvt. Ltd.
- Vivian, J. (2012). *The Media of Mass Communication.* New Delhi : Pearson.

Prescribed Research Papers:

- Smith, R. E., & Yang, X. (2004). Toward a general theory of creativity in advertising: Examining the role of divergence. Journal of Marketing Theory, 31-58. doi:10.1177/1470593104044086
- Winter, E., Russell, J. T., &Wolter, L. J. (1973). Psychographics and Creativity. Journal of Advertising, 32-36+46.
- Smith, R. E., MacKenzie, S. B., Yang, X., Buchholz, L. M., & Darley, W. K. (2007). Modeling the Determinants and Effects of Creativity in Advertising. Marketing Science, 819 - 833.

Suggested Additional Reading:

- MacRury, I. (2009). Advertising. New York: Routledge.
- Farbey, A.D. How To Produce Successful Advertising: A Guide to Strategy, Planning and Targeting (Third ed.). (2002). London: Kogan Page Limited.
- Eighmey, J., &Sar, S. (2007). Harlow Gale and the Origins of the Psychology of Advertising. Journal of Advertising, 147-158.

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Course Code: JCW 529

Course Name: Editorial Writing

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: This course is designed to

- Introduce the students to the field of editorial writing, audience understanding and persuasion.
- The students will be given practical assignments to drill the skills needed for writing and it will help them develop new skills as a critical thinker.
- Discuss the skills and judgment needed for writing and selection of opinion pieces.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
   - Class Participation: 5%
   - Writing skills: 5%
   - Home Assignments: 10%
   - Role Play: 5%

Course Contents:

UNIT- I: Concept of Editorial Writing **(4 Hours)**

- The editorial page
- Defining editorial
- Qualities and responsibilities of the editor
- Deputy editor, assistant editor and editorial staff

UNIT- II: Editorial Writing Rules and Tools **(4 Hours)**

- Rules for editorial writing
- Concept of op-ed page, Editorial policy
- The editorial board, Editorial conference
- Tools: Reading, library, clippings and research

UNIT – III: Writing the Editorials **(4 Hours)**

- Kinds of editorial writing: Leaders' opinion articles, analytical articles, current topics, importance of letters to editor.
- Structure of editorials
- Types of editorials
- Planning of editorial page, Editing the opinion articles: do's and don'ts

UNIT - IV: Writing Columns and Middles **(4 Hours)**

- Planning and writing columns
- Series of Articles
- Middles
- Editorial cartoons

UNIT - V: Editorials and other Forms of Writing **(4 Hours)**

- Letter to editor, Selecting and editing letters to the editor
- Comparative study of edit page of local and national dailies
- Magazine Editorials
- Reading and analysing editorials, opinion articles on a particular issue by various newspapers

Text Book:

1. Aggarwal, VirBala (2006). Essentials of Practical Journalism. Concept Publishing Company, New Delhi.
2. Kamath, M. V. (2009). Professional Journalism. Vikas Publishing House, New Delhi.
3. Stonecipher, Harry (1990). Editorial and Persuasive Writing: Opinion functions of the News media. Hastings House, New York.

Additional Readings:

1. Clark, Roy Peter (2006). Writing Tools: 50 essential strategies for every writer. Little, Brown and Company, New York.
2. Nicholls, Brian (1972). Features with Flair. Vikas Publications, Delhi.
3. Rystrom, Kenneth (1983). The why, who and how of the Editorial Page. Random House, New York.

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Course Code: JCW 404
Course Name: News Report Writing
Credits Equivalent: 4 Credits
(One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity; 15 hours of other workload such as independent individual/ group work; gathering of news; writing reports/ survey/data collection/analysing the data/ field reports; writing of articles/features/Press releases/conferences/asking questions/mock interviews/paper presentations/ seminars, etc.)

Course Objectives:
This course aims at
1. To equip the learners an in depth understanding of how to write a report and developing basic skills in Reporting and Writing news.

2. Enabling the students to know the techniques of interviewing and news gathering.

3. To develop written and communication skills among the learners and to inculcate curiosity and how to dig up information and techniques of investigation.

4. To understand the role of a reporter.

5.Exposing the students to different types of reporting together with the ingredients of ideal effective reporting and to teach the learners the ethics of reporting.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counselling, Activities and Tutorials (CAT): 25%
   i Demo Interviews: 10 %
   ii Presentation/Seminar Paper: 15%

Course Content:

Unit I **(8 Hours)**

- What is Reporting? & Evolution of Reporting
- 'Avissi' and the reporter's network
- The advent of Printing and evolution of Modern press
- History and Evolution of News Reporting in United Kingdom & USA
- History and Evolution of News Reporting in India
- Qualities of News writing
- Basic News story & Principles governing news coverage
- News Values

Unit II **(8 Hours)**

- News paper vocabulary
- Employees in News paper establishment
- Qualifications and responsibilities of a Reporter
- Reporting Skills
- Types of Reporters and Journalistic attitudes
- Newspaper Organization and hierarchy
- ABC of reporting
- News Gathering, Beats and Sources
- News writing basics

Unit III **(8 Hours)**

- Components of a News story, 5 W's and H
- Structure of News Story
- Inverted Pyramid and other syles
- Alternative Story Forms
- Writing for Broadcast Media
- Leads, Types of Leads
- Types of News & Interview Techniques
- Difficulties in reporting
- Convergent Media Writing

Unit 1V **(8Hours)**

- Types of Reporting
- Political Reporting
- Crime Reporting
- Economic and Financial Reporting
- Sports Reporting
- Legislature reporting
- Science and Environment Reporting
- Mofussil Reporting
- Advocacy Reporting
- Film reporting

Unit V **(8 Hours)**

- Reporting special events, Disasters and Accidents, Covering court cases, Judgments
- Ethical guidelines in coverage of news New Genres of Reporting
- Investigative Journalism
- Online Journalism
- Citizen's Journalism & Embedded Journalism & Blogs
- Cheque Book Journalism & Paid News
- Legal and Ethics Issues in Reporting

Prescribed Textbooks:

1. Carole Rich (2010) *News Writing and Reporting*, Cengage Learning India Private Limited, India Edition, New Delhi. ISBN -13:978-81-315-1235-7.
2. Manukonda Rabindranath & T.Shyam Swaroop, *News Reporting-Techniques and Trends* (2011) LAP Lambert Academic Publishing, Germany.ISBN-978-3-8484-1209.

Suggested Extra Readings:

1. Gupta, V.S. (2010) *Handbook of Reporting and Communication Skills*, Concept Publishing House, New Delhi.
2. Kamath M.V, *Professional Journalism*, Vikas Publishing House, Pvt Ltd, New Delhi.
3. Sewak Ram Sharma**, (**2010), *Guidelines for Writing, Reporting and Editing*, D.P.S Publishing House, New Delhi.
4. Stovall, (2010) *Journalism: Who, What, When, Where, Why and How*, PHI Learning, Private Limited, Delhi. ISBN: 978-81-203-4369-6.
5. Usha Raman, (2010) *Writing for Media*, Oxford University Press.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: JCW507

Course Name: Film Appreciation

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To prepare students to understand Film as an art form and mass media
- To impart visual literacy to the students so that they are able to appreciate, analyse and interpret visual messages produced in the format of film.
- To help students to understand the social, cultural as well as economic aspects of film as an influential mass medium.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Group Discussion: 10%
  - Home Assignments: 5%
  - Role Play: 5%

Course Contents:

UNIT- I: Film Basics **(5 Hours)**

- Film as a text and art
- Signs – denotative and connotative meanings
- Syntax of the film language

UNIT - II: History of film and film movements **(5 Hours)**

- Film evolution and History
- Realism, Expressionism and Auteur
- French New Wave
- Neo-realism and after
- Film in the digital era

UNIT - III: Indian Cinema **(4 Hours)**

- History of Indian films
- Parallel film movement in India
- Regional language films in India
- Major film makers and their works

UNIT- IV: Appreciating film **(3 Hours)**

- Appreciating film as a reviewer
- Viewing skills
- Writing on film

UNIT- V: Film and culture **(3 Hours)**

- Film as part of popular culture
- Film during globalisation
- Present trends

Film Screenings are a part of the course. All students should attend the film screenings compulsorily.

Prescribed Text Books:

1. Monaco, James. (2000). *How to Read a Film: The world of movies, media, and multimedia*, NY: Oxford University Press.

2. Hogan, Patrick Colm.(2008) *Understanding Indian movies : Culture, cognition, and cinematic imagination*. Austin, University of Texas Press.
3. Doughty, Routh., Shaw, Deborah. (Eds).(2009). *Film: The Essential Study Guide*, London: Routledge

Suggested Additional Readings:

1. Ray, Satyajit (1994), Our Films, Their Films, Hyperion Books
2. Pramaggiore, Maria., Wallis, Tom.(2008).*Film: A critical Introduction (Second Edition),* Boston: Pearsons

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Course Code: JCW 515

Course Name: Art and Culture Journalism

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To develop skills in arts reporting, reviewing & profile / feature construction through attending cultural events, consuming cultural products, meeting cultural workers, in a variety of milieu
- To encourage students to develop a range of different approaches in review features, and to reflect critically on them
- To explore critically the various genres of journalistic coverage of the arts and popular culture, from fine arts to television
- To acquaint students with the key concepts and debates concerning the principal forms of artistic expression

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%

- Art /Culture Reporting: 10%
- Home Assignments: 5%
- Review writing: 5%

Course Contents:

UNIT- I: Art Journalism Basics **(7 Hours)**

- What is Art Journalism
- cultural functions of Journalism
- History of Art Journalism
- Art Journalism in India
- Discussion of art reviews in popular press

UNIT - II: Art as a beat **(11Hours)**

- Covering Art as a beat
- Covering Art Festivals
- Major art institutions and artists
- Skills needed for an Art Journalist
- Specialisation within Art Beat

UNIT - III: Reviewing Art **(8 Hours)**

- Structure of Review
- Reporting Art in context
- Reportage Vs. Reviewing
- Reviewing different Art forms

UNIT- IV: Writing Reviews **(9 Hours)**

- Writing film reviews
- Reviewing live performances
- Writing Book Reviews
- Pace, Tone and structure of reviews
- Writing Profiles

UNIT- V: Culture and Nation **(5 Hours)**

- The concept of Culture industries
- Economics of the Culture industries
- Importance of entertainment industries in national economies

Prescribed Text Books:

1. Brayfield, C., (2012). Arts Reviews: And How to Write Them, Oldcastle Books Ltd, ISBN 9781842434185
2. Titchener, Campbell B. (2005) Reviewing the Arts, Mahweh, NJ: Lawrence Erlbaum

Suggested Additional Readings:

1. Eagleton , T. (2011). Literary Theory: An Introduction Edition 2, John Wiley & Sons, 2011 ISBN 1118306295, 9781118306291
2. Scott, R. W. (1999), Bridging the Cultural Gap: How arts journalists decide what gets onto the arts and entertainment pages, Critical Quarterly, Vol 41, No. 1.

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Course Code: JCW 524

Course Name: Education Journalism

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed

- To create an awareness in the students regarding the professional practices and standards used by educational journalists
- To develop the skills needed to be an educational journalist
- To help students to understand about the different issues and present trends in the education sector

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%

Course Contents

UNIT I : Education Journalism: The Basics (4 Hours)

- What is Education Journalism
- Evolution and History of Education Journalism
- Significance of Education Journalism

- Education Journalism in India

UNIT II : Covering Education Beat (4 Hours)

- Reporting basics
- Reporting education news
- Sources of Education news
- Writing education columns

UNIT III: Education Scenario in India (5 Hours)

- State of education in India
- Authorities of Higher Education
- Major education institutes in India
- Special education
- Right to Education Act and other legislations

UNIT IV: Present Trends in Education (4 Hours)

- Education in the era of globalization
- Course Booms
- Growth of the private sector
- Fake coins in the trade

UNIT V: Standards and Ethics of Education Journalists (3 Hours)

- Skills of Education journalism
- Ethical standards of education journalism
- Future of Education Journalism

Text Books:

1. Carr, Sarah.(2013). *Reporters Guide*. Education Writers Association
2. Ryan, Carson W. (1923). *Recent Developments in Educational Journalism*, Washington: Dept of the Interior Bureau of Education, Government Printing Office
3. Rich, Carole (2010), Writing and Reporting News: A Coaching Method, Sixth Edition, Boston: Wadsworth, Cengage Learning
4. Rao, R. K.(2000). Education in India, Gyan Books

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COURSE CODE: JCW 409

COURSE NAME: BUSINESS & ECONOMIC JOURNALISM

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours writing assignments / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work/ house journals; obligatory/ optional work placement; literature survey/ library work; writing of papers/ presentations/ seminars, etc.)

Course Objectives: The Course is designed to:

- Enable the students to learn to research and write on economy and business related matters.
- Assist the students in understanding the basic concepts related with business and economy.
- Enable the students to appreciate the role of Business & Economic Journalism in growth and advancement of developing economies.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 Marks out of 100

    - Surprise Progress Review Tests (Two)
    - Miscellaneous Assignments: Presentations/Articles/News Stories

Course Contents:

UNIT I: Business and Economic Journalism – A Primer (04 hours)

- An introduction to Journalism.
- Business and Economic Journalism: Concept, Significance and Scope.
- Objectives of Business and Economic Journalism.
- Role and Responsibilities of a Business Journalist.
- Business Journalism in Emerging Economies.

UNIT II: Writing News Stories based on Economy - I (04 hours)

- National Economy
- National Income
- Fiscal Policy
- Money, Banking and Inflation

UNIT III Writing News Stories based on Economy - II (04 hours)

- Banking System
- Monetary Policy
- Credit Policy
- Inflation

UNIT IV: Writing News Stories on Indian Business Environment (04 hours)

- Key Industries in India.
- Government Policies & Legislations and their Impact on Businesses and Economy.
- Key Industry Associations in India: CII, ASSOCHAM and FICCI.
- Major Challenges faced by the Indian Industries.

UNIT V: Writing News Stories based on Financial Markets (04 hours)

- Fundamentals of Stock Markets.
- Initial Public Offerings (IPO)
- Mergers and Acquisitions.
- Securities and Exchange Board of India.

Prescribed Text Books:

- Kumar, K. J. (2010). *Mass Communication in India.* Mumbai: Jaico Publication.
- Giles, D. (2003). *Media Psychology.* New Jersey: Lawrence Erlbaum Associates, Inc.

Suggested Additional Reading:

- Morley, D., & Robins, K. (1995). *Spaces of Identity: Global Media, Electronic Landscapes and Cultural Boundaries.* London: Routledge.
- Cottle, S. (Ed.). (2000). *Ethnic Minorities and the Media: Changing Cultural Boundaries.* Philadelphia: Open University Press.
- Hartley, J. (2002). *Communication, Cultural and Media Studies: The Key Concepts* London: Routledge.

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COURSE CODE: JCW 504

COURSE NAME: Public Relations

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of PR writing work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work/ house journals; obligatory/ optional work placement; literature survey/ library work; writing of papers/ presentations/ seminars, etc.)

Course Objectives: The Course is designed to

- It throw light on the origin, growth and development of Public Relations and Corporate Communication.
- Enable the learners to know the fundamentals, process, techniques and planning of Public Relations and Corporate Communication.
- Developing basic skills for practice of Public Relations and Corporate Communication.
- Exposing the students to various types of public relation activities and process.
- Learners will be equipped with knowledge regarding corporate image building, corporate culture, corporate style and its importance in the corporate world.
- Understand the role of CC in crisis management, community relations corporate social responsibility, media relations and ethical aspects of Public Relations and PR Societies.
- It includes many real-life examples and exhibits to facilitate understanding o f the concepts.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e 25 Marks out of 100

    - Seminar Presentation: 10 marks
    - PR Writing/Preparing House Journal : 15 marks

Course Contents:

UNIT I: Introduction to Public Relations (8 hours)

- The concept of Public Relations
- Definitions of Public Relations
- Origin, Evolution and growth of Public Relations
- 20th century Developments
- Elements of Corporate Public Relations
- Functions of Public Relations
- Purpose of Public Relations
- Public Relations interface with other management disciplines
- Duties and Responsibilities of a Public Relations Manager

UNIT II: Public Opinion & Models of PR and Theories of Persuasion (8 hours)

- Meaning of Public Opinion
- Formation of public opinion
- Attitudes in opinion formation
- Types of attitudes.
- Changing existing attitudes.
- Impact on Public Relations activities
- Message Development-Appeals and Structure.
- Maslow Hierarchy of Needs
- Models of Public Relations
- Theories of Persuasion

UNIT III: Planning Public Relations and Community Relations (8hours)

- Public Relations Process
- Public Relations Tools & Materials
- Business organisations and the community
- Community Relations Programmes and welfare activities
- Consumer and Customer Relations
- Employee Relations
- Community Relations
- Social Accountability and Educational Relations
- Corporate Social Responsibility
- Public Relations in Government
- House Journals
- Planning Special Events in Public Relations

UNIT 1V: Understanding Corporate Communications (8 hours)

- Corporate Communication Definition
- Origin, Evolution and Growth of Corporate Communication
- An Introduction to Corporate Brands
- Corporate Identity
- Corporate Image & Reputation
- Corporate Culture, Style.
- Introduction to IMC
- Introduction to Advertising
- Case Study of Ad Campaigns

UNIT V: Crisis Communication and Management (8 hours)

- Need for PR in Crisis Management
- Crisis: Definition, Concepts and Types.
- Crisis Management: Meaning and Various Stages
- Crisis Team-Role of Members
- Crisis PR Planning and Strategy
- Tools of Crisis Communication
- Ten Point of Crisis PR
- Role of CC in crisis handling-Media handling during critical situations
- Case study in Crisis Management
- Global Public Relations and Future of Public Relations
- Ethical aspects of Public Relations
- Public Relations Societies.

Prescribed Text Books:

1. Iqbal S. Sachdeva (2012) *Public Relations: Principles and Practices*, Oxford University Press, New Delhi.
2. Jaishri Jethwaney (2012) *Corporate Communication: Principles and Practice*, Oxford University Press, New Delhi.
3. J V Vilanilam, (2011) Public *Relations in India*, Sage Publication, New Delhi, India.
4. Jerry A. Hendrix & Darrell C. Hayes (2009) *Public Relations -A Case Based Approach*, Cengage Learning, New Delhi India.
5. Joseph Fernandez, (2004) *Corporate Communications*-A 21st Century Primer, Sage Publication, New Delhi, India.
6. Kathleen Fearn-Banks (2011) *Crisis Communications-A Casebook Approach*, Routledge, New York.
7. Narasimha Reddy C.V. (2009) *Effective Public Relations and Media Strategy*, PHI Learning Private Limited, New Delhi.

Suggested Additional Reading:

1. Balan K.R., *Corporate Public Relations*, Sterling Publishers Private Limited, New Delhi.
2. C.K. Sardana, (1995) *The Challenge of Public Relations*, Har-Anand Publications, New Delhi.
3. C. S. Rayudu and K.R. Balan (2013) Principles of Public Relations, Himalaya Publishing House, Mumbai.
4. Frazier Moore and Frank B.Kalupa (2002) *Public Relations: Principles, Cases and Problems*, Surjeet Publications, New Delhi.
5. Sam Black, (2008) *Practical Public Relations*, Universal Book Stall, New Delhi.
6. Sandra M. Oliver, (2004), *Handbook of Corporate Communication and Public Relations*, Routledge.
7. Sengupta, (2005), *Management of Public Relations and Communication*, Vikas Publishing House.

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[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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COURSE CODE: JCW 505

COURSE NAME: ADVERTISING

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 20 hours of teacher-led / independent workload such as Conceptualizing and Designing Individual Advertisements & Advertising Campaigns for different media / Presentations / Writing Papers / Seminars / Conferences / Workshops, etc.)

Course Objectives: The Course is designed to:

- Enable the learners to understand the fundamentals of Advertising.
- Familiarize the learners with theoretical and practical aspects of Advertising.
- Enable the students to understand the key ingredients of effective advertising.
- Enable the learners to appreciate diverse views on perception and reception of advertising messages by the audiences.
- Encourage the students to explore the emerging trends in the field of advertising so that they may grasp the intricacies of modern advertising in a better manner.
- Expose the students to the ethical issues pertinent to the trade and practice of Advertising.
- Apprise the learners of the emerging challenges in the field of Advertising.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to derive maximum benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 Marks out of 100

    - Surprise Progress Review Tests: **15 marks** (The tests may be oral or written and may be carry different marks)
    - Assignments: **10 marks** (May Conceptualizing and Designing Individual Advertisements or Complete Advertising Campaigns for different media, Presentations, Preparation of Written Reports, etc.)

Course Contents:

UNIT I: Introduction to Advertising (08 hours)

- What is advertising?
- Origin, Evolution and Growth of Advertising
- Advertising: Key Concepts
- The Key Players in the Advertising Arena
- Advertising Agencies – Structure and Functioning

UNIT II: Types of Advertising (08 hours)

- Classification of Advertising based on Geographical Spread
- Classification of Advertising based on Target Audiences
- Classification of Advertising based on Media
- Classification of Advertising based on Appeals – Emotional vs. Logical
- Product Advertising – Pioneering, Competitive and Retentive
- Retail Advertising
- Subliminal Advertising
- Direct Response Advertising
- Public Service Advertising

UNIT III: Roles and Functions of Advertising **(08 hours)**

- Role of Advertising in Integrated Marketing Communications
- Role of Advertising in Sales Promotion
- Role of Advertising in Creation and Management of Brands
- Economic Role of Advertising
- Societal Role of Advertising
- Ethical Perspectives on Advertising

UNIT IV: Creativity in Advertising **(08 hours)**

- Creativity in the context of Advertising
- Perspectives on Creativity in Advertising
- Creative Strategy
- Aspects of Creative Strategy
- Planning and Managing Creative Strategy
- Psychographics and Creativity in Advertising
- Determinants of Creativity in Advertising

UNIT V: Producing Effective Advertisements **(08 hours)**

- Understanding the Audiences
- Gathering Intelligence and Insights through Strategic Research
- Copywriting – The Backbone of Effective Advertising
- Advertising Planning and Budgeting
- Evaluating Effectiveness of Advertisements

Prescribed Text Books:

- Wells, W. D., Burnett, J., & Moriarty, S. (2012). Advertising: Principles and Practice. India: Pearson.
- Chunawalla, S. A., & Sethia, K. C. (2011). Foundations of Advertising: Theory and Practice. Mumbai: Hiamalaya Publishing House Pvt. Ltd.
- Vivian, J. (2012). *The Media of Mass Communication.* New Delhi : Pearson.

Prescribed Research Papers:

- Smith, R. E., & Yang, X. (2004). Toward a general theory of creativity in advertising: Examining the role of divergence. Journal of Marketing Theory, 31-58. doi:10.1177/1470593104044086
- Winter, E., Russell, J. T., & Wolter, L. J. (1973). Psychographics and Creativity. Journal of Advertising, 32-36+46.
- Smith, R. E., MacKenzie, S. B., Yang, X., Buchholz, L. M., & Darley, W. K. (2007). Modeling the Determinants and Effects of Creativity in Advertising. Marketing Science, 819 - 833.

Suggested Additional Reading:

- MacRury, I. (2009). Advertising. New York: Routledge.
- Farbey, A.D. How To Produce Successful Advertising: A Guide to Strategy, Planning and Targeting (Third ed.). (2002). London: Kogan Page Limited.
- Eighmey, J., & Sar, S. (2007). Harlow Gale and the Origins of the Psychology of Advertising. Journal of Advertising, 147-158.

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COURSE CODE: JCW 519

COURSE NAME: SPORTS JOURNALISM

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 10 hours writing assignments / practical / field work / Tutorial / teacher-led activity and 10 hours of other workload such as independent individual/ group work/ house journals; obligatory/ optional work placement; literature survey/ library work; writing of papers/ presentations/ seminars, etc.)

Course Objectives: The Course is designed to:

- Introduce the students to the field of Sports Journalism.
- Train the students to cover sports stories objectively and provide them training to write effective sports news stories.
- Acquaint the students with the nuances of journalistic style for writing sports news stories.
- Provide the students with an opportunity to discuss and deliberate upon various sports reporting related issues in order to prepare them for professional sports journalism.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 Marks out of 100

    - Surprise Progress Review Tests (Two) : 10 marks (The tests may be oral or written)
    - Presentation: 5 marks
    - Assignments: 10

Course Contents:

UNIT I: An Introduction to Sports Journalism (06 hours)

- Sports Journalism: A Primer.
- A Brief History of Sports Journalism.
- Sports Journalism in India.
- Major Global Sports and Sporting Events: An Introduction.
- Major Indian Sports and Sporting Events: A Brief Overview.

UNIT II: Practical Sports Journalism: Print and Online (12 hours)

- Sports Journalism for Print Media.
- Key Attributes of a Sports Journalist.
- Journalistic Writing Style for Sports Reporters.
- Sports News Values.
- Sources of Sports News.

- Online Sports Journalism.
- Writing Sports News Stories for the Web.
- Photojournalism for Sports.
- Sports Features.
- Sports Interviews.

UNIT III: Practical Sports Journalism: Television and Radio (08 hours)

- Print Sports Journalism vs. Broadcast Sports Journalism.
- Key Elements of Television Sports Journalism.
- Key Elements of Radio Sports Journalism.
- Language for Broadcast Sports Journalism
- Writing and Performing Scripts for Broadcast Radio Journalism.
- Interviews for Broadcast Sports Journalism.
- Story Structure of Broadcast Sports News Stories.

UNIT IV: Sports Journalism: Context and Issues (10 hours)

- Sports and Politics.
- Sports, Culture and Society.
- Sports and Gender.
- Sports and Ethnicity.
- Sports in the Era of Globalization and Commercialization.
- Sports and Corruption.

UNIT V: Current Trends in Sports Journalism (04 hours)

- Covering Sports in Convergence Era.
- Legal and Ethical Issues in Sports Journalism.
- Political Economy of Sports Journalism.
- Future of Sports Journalism.

Prescribed Text Books:

1. Boyle, R. (2006). *Sports Journalism: Context and Issues.* London: Sage Publications.
2. Andrews, P. (2005). *Sports Journalism: A Practical Guide.* London: Sage Publications.

Suggested Additional Reading:

1. Steen, R. (2008). *Sports Journalism: A Multimedia Primer.* New York: Routledge.
2. Stofer, K. T., Schaffer, J. R., & Rosenthal, B. A. (2010). *Sports Journalism: An Introduction to Reporting and Writing.* USA: Rowman & Littlefield Publishers, Inc.
3. Boyle, R., & Haynes, R. (2009). *Power Play: Sport, the Media and Popular Culture* (2 ed.). Edinburgh: Edinburgh University Press.
4. Polley, M. (1998). *Moving the Goalposts: A History of Sport and Society since 1945.* London: Routledge.

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COURSE CODE: JCW 523

COURSE NAME: MEDIA AND SOCIAL ISSUES

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours writing assignments / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work/ house journals; obligatory/ optional work placement; literature survey/ library work; writing of papers/ presentations/ seminars, etc.)

Course Objectives: The Course is designed to:

- Assist the students in understanding the effects of media on the society.
- Acquaint the students with the contemporary issues pertinent to the representations of various sections of the society in the media.
- Explain to the students the manner in which various sections of the society are affected by the media in light of the theories of media effects.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25% i.e. 25 Marks out of 100

    - Surprise Progress Review Tests (Two) : 10 marks (The tests may be oral or written)
    - Presentation: 5 marks
    - Assignments: 10

Course Contents:

UNIT I: Media Effects **(04 hours)**

- Role of Media in a Society.
- Media and Society: Concept of the Media Effects.
- Mass Society and Media Audiences.
- Perspectives on Media Effects: Pro-Social vs. Anti-Social.
- Theories of Media Effects: An Overview.

UNIT II: Representation Issues in Media **(04 hours)**

- Perspectives on Stereotyping.
- Gender Representations in Media.
- Media and Representation of Minorities.
- Media Representations of Differently Abled Persons.

UNIT III: Media and Cultural Issues **(04 hours)**

- Media Culture: Concept and Contemporary Issues.
- Perspectives on Phenomenon of Cultural Imperialism.
- Media and Cultural Integration vs. Cultural Disintegration.
- Media Content in Multi-Ethnic Societies.

UNIT IV: Media and Human Rights **(04 hours)**

- Human Rights: Concept and Contemporary Issues.
- United Nations Declaration on Human Rights.
- Representation of Human Rights Issues in Media.
- Role of Media in Propagation of Human Rights.

UNIT V: Media and Socio-Economic Development **(04 hours)**

- Media and National Integration.
- Media and Education.
- Media and Public Health.
- Media and Rural Development.

Prescribed Text Books:

1. Kumar, K. J. (2010). *Mass Communication in India.* Mumbai: Jaico Publication.

2. Giles, D. (2003). *Media Psychology.* New Jersey: Lawrence Erlbaum Associates, Inc.

Suggested Additional Reading:

1. Morley, D., & Robins, K. (1995). *Spaces of Identity: Global Media, Electronic Landscapes and Cultural Boundaries.* London: Routledge.
2. Cottle, S. (Ed.). (2000). *Ethnic Minorities and the Media: Changing Cultural Boundaries.* Philadelphia: Open University Press.
3. Hartley, J. (2002). *Communication, Cultural and Media Studies: The Key Concepts* London: Routledge.

Department of Mass Communication & Electronic Media

School of Journalism, Mass Communications & New Media

Name of the Department: **Department of Mass Communication & Electronic Media**

Name of the Programme of Study: **MA (New Media Communication)**

Semester-I

SN	Course Code	Course Name	Credit	Teacher
01	MCE401	Mass Communication Theory	04	RP RAI
02	MCE403	Reporting & Editing	04	K. SINGH
03	MCE425	Audio and Video Fundamentals	04	RP RAI
04	MCE406A	Web Technology and Applications	02	P.NAIR
05	MCE419	Social and Cultural Context of Communication	02	P.NAIR
06	MCE 504	Language of New Media	04	K. SINGH

Semester-III

SN	Course Code	Course Name	Credit	Teacher
01	MCE513	Radio Production	04	P.NAIR
02	MCE514	Television Production	04	K. SINGH
03	MCE516	Internet and Mobile Production	04	RP RAI
04	MCE414	ICT in Governance	02	P.NAIR
05	MCE417	Digital Technology Divide and Social Inclusion	02	P.NAIR
06	MCE 416	e-Education and Learning	02	RP RAI
07	MCE 413	New Media and Social Change	02	K. SINGH

UNIVERSITY WIDE

SN	Course Code	Course Name	Credit	Teacher
01	MCE403	Reporting & Editing	04	K. SINGH
02	MCE406A	Web Technology and Applications	02	P.NAIR
03	MCE414	ICT in Governance	02	P.NAIR
04	MCE417	Digital Technology Divide and Social Inclusion	02	P.NAIR
05	MCE419	Social and Cultural Context of Communication	02	P.NAIR
06	MCE 413	New Media and Social Change	02	K. SINGH
07	MCE 416	e-Education and Learning	02	RP RAI
08	MCE 504	Language of New Media	04	K. SINGH

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Course Code: MCE 403

Course Name: Reporting and Editing

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To acquaint the students with the reporting and editing techniques for television and radio.
- To train the students in various reporting beats for electronic media.
- To familiarize students with current changes taking place in the field of electronic news gathering and reporting.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
   - Class Participation: 5%
   - Group Discussion: 5%
   - Assignments 15%

Course Contents

Unit-I Introduction **(4 Hours)**

Assignment Desk, Input Desk & News Bureau

What is news

Sources of news

Nose for news

Legal complexities and remedies

Unit-IIObjective Reporting **(8 Hours)**

Reporting facts and figures

Visuals and byte

Piece-to-camera, walk through, Vox-pop

Interviews

Live reporting, Live from desk and Live phone-in

Studio Discussions

Unit-III Types of Reporting **(8 Hours)**

Spot Reporting

Investigative reporting &Under Cover Operations

Crime Reporting

Riots/violence Reporting

Court Reporting

Parliament/VidhanSabha Reporting

Unit-IV News Writing **(8 hours)**

Anchor Intro and body part

Essential of script writing

Writing for graphics

Unit-V Editing of news **(12 hours)**

Out put desk and producer

Re-writing of news

Voice-over and video editing

Project: Practical News Coverage

Essential Readings

i. Shook, Fred., Larson, John & DeTarsio, John. (2012). Television and Field Reporting (6th Edition). Pearson.

ii. Keller, Teresa. & Hawkins, S.A. (2005). Television News: A Handbook for Writing, Reporting, Shooting and Editing. Holcomb Hathaway Publishers.

iii. Gibson, Roy. (1991). Radio and Television Reporting. Allyn & Bacon.

Books

- **News Reporting and Editing** - By K.M. Shrivastav
- **News Reporting (Techniques and Trends)** - By Manukonda Rabindranath
- **How to Report and Write the News** - By Rajesh Kumar
- **Modern Journalism Reporting and Editing** - By Diwakar Sharma

Suggested Readings

1. Brooks, S.B., Kennedy, G. Moen, D.R. & Ranly, D. (2001). Telling the Story: Writing for Print, Broadcast and Online Media. New York: Bedford/St. Martin's
2. Cooper, C.R. & Peck, Susan. (2000). Writing the World: Reading and Writing about Issues of the Day. Boston: Bedford/St. Martin's
3. Wykes, Maggie. (2001). News, Crime and Culture. Sterling VA: Pluto Press.

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Course Code: MCE 406 A

Course Name: Web Technologies and Applications

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Introduce the students about the concept and issues of digital divide from socio-economic perspectives while emphasizing references from India.
- To make the students understand the real domestic communication technology disparities taking place in India which is rising a social conflict between haves and have nots.
- Familiarize the students with the issues and problems of people without access to new communication technologies and how they are being excluded from education, healthcare, good governance and the means to improve their livelihoods
- **Attendance Requirement:**

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Group Discussion: 10%
  - Home Assignments: 5%
  - Role Play: 5%

Course Contents:

Unit -I: Fundamentals of Web Technologies (4Hours)

- Introduction to Web Communication Technologies
- Web 3.0
- Social Media as Web Communication Tool
- Internet Protocol Television (IPTV)
- Multicasting over Web, Cloud Computing

UNIT- II: Web Communication Applications & Practices (4 Hours)

- Video on Demand
- Multicast
- Digital Multimedia Broadcasting
- Internet Protocol Datacasting
- Video Streaming

UNIT - III: Issues in Web Communication (4Hours)

- Consumer Issues
- Service Delivery Issues
- Industry Issues
- Development Issues
- Research and Advocacy Issues

UNIT - IV: Broadcasting over Web (Webcasting) (4 Hours)

- Web Broadcast
- Web Broadcast Technologies
- Current Web Broadcast Deployments
- Markets for Web based Broadcast Services
- Cost Factor of Web based Broadcasting

UNIT - V: Challenges for Research on Web Communication **(4 Hours)**

- Diffusion of Web Technology and its Roll out to Rural India
- Content Creation for Web
- Technical and Methodological Constraints
- Policy and Regulatory Framework
- Social Benefits of Web based Communication

Prescribed Essential Readings:

1. Subhash Bhatnagar and Rober Schware (Eds). 2003. Information and Communication Technology in Rural Development. New Delhi: Sage Publications
2. Norris, Pippa. 2001. Digital Divide: Civic Engagement, Information Poverty and the Internet World Wide. Cambridge: Cambridge University Press.
3. Kenneth Keniston and Deepak Kumar (Eds). 2004. IT Experiences in India: Bridging the Digital Divide. New Delhi: Sage Publications.

Suggested Additional Readings:

1. Emile G. McAnany (Eds) 1984. Communication in Rural Third World. New York: Praeger Publications.
2. Uma Narual and W. Barnett Pearce. 1986. Development Communication: A Perspective on India. Carbondale Illinois: Southern Illinois University Press.
3. William Wresch. 1996. Disconnected: Have and Have –Nots in the Information Age. New Jersey: Rutgers University Press

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: MCE 425

Course Name: Audio and Video Fundamentals

Faculty: Dr. R.P. Rai

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Demonstrate proficiency in audio and video (A/V) image planning and acquisition.
- Demonstrate proficiency in A/V manipulation and editing.
- Demonstrate proficiency in A/V output and dissemination.
- Explain the mechanics and electronics of the digital video camera.
- Apply basic aesthetic values in the production of A/V media.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Assignments: 10%
  - Class Participation: 5%
  - Presentation: 10%

COURSE CONTENTS:

AUDIO FUNDAMENTALS:

UNIT I: Audio Basics (8 hours)

- Analog and digital signals
- Digitalization of signals, sampling, quantization, encoding
- RF spectrum and propagation methods
- Optical communication basics
- Modulation of signals, Analog and Digital modulation basics

UNIT II: Audio and Sound Control. (8 hours)

- Sound pickup principle: Microphones.
- Sound control: manual volume control, audio mixer, audio console, cables and patch panels
- Sound recording: digital audio production equipment, analog recording equipment
- Audio post production, synthesized sound, sound aesthetics.

VIDEO FUDAMENTALS:

UNIT III: Image Creation: Digital Video and Camera (8 hours)

- Video Basics: introduction.
- Basic image formation.
- Digital process: analog and digital signals, digital system, downloading and streaming.
- Video camera: function, elements and types.
- Operating the camera: Camera Mounts and Operational features.
- Light: types, intensity, Lighting instruments and Techniques.
- Shadows, Color and Contrast.
- Graphics and effects: Principles of graphics, standard electronic video effects, digital effects.

UNIT IV: Image Control: Switching, Recording, and Editing. (8 hours)

- Switcher and switching: Switcher layout, operation, automated production control.
- Video recording: systems, process and use of video recording.
- Non linear & linear editing.
- Off-line and On-line Editing.
- Editing principles, purpose and functions.

UNIT V: Production Environment and Control. (8 hours)

- Video production studio.
- Studio control room, master control.
- Electronic news gathering (ENG).
- Electronic field production (EFP).
- Talent, Clothing, and makeup.
- Script formats, visualization.
- Preparing for multi camera studio production: Single-camera directing, control room directing.

ESSENTIAL READINGS:

S.No.	Title of the Book/ Research Manuscript	Author	Year of Publication	Publisher/Journal & Volume, Page No.
1	Video Basics	Herbert Zettl	2011	Wordsworth
2	HDTV and Transition to Digital Broadcasting	Philip J Cianci	2010	Focal Press
3	Television Production	Gerald Millerson	2010	Focal Press

Suggested Additional Reading:

1.	Fundamentals of Digital Television Transmission	Gerald W Collins, John Willey	2008	Artech House
2.	Electronic Media Then, Now and Later	Norman Medoff	2011	Focal Press

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Course Code: MCE 513

Course Name: Radio Production

Faculty: Dr. Pradeep Nair

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

1. The focus of this course is to expose students to different production techniques of radio that will allow them to work in the field of commercial broadcasting and digital media.
2. The emphasis here is on exploring the ways in which radio production technology and broadcast industry is co-related.
3. Sensitize students to the development of concepts for radio features and radio programmes, scripting, directing, microphone handling, programming, editing etc.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Class test: 5%
  - Assignments: 10%
  - Class Participation: 5%
  - Presentation: 5%

COURSE CONTENTS:

PAPER-IV: RADIO PRODUCTION

Objective:

The paper provides basic concept of sound production for radio. The students will study basic techniques used for sound acquisition, production, and recording. The students will also be trained on operation and maintenance of sound equipment used in studio & outdoor shooting/ recordings.

UNIT – I: Introduction to radio production

- Radio production basics
- Understanding of equipment used in radio studio and outdoor production
- Microphone principles, classification, polar pattern, placement of microphones, stereo, RF microphones, microphone parameters and accessories

UNIT – II: Audio Production

- Analog audio production basics
- Digital audio production, Audio work station, advantages of digital production
- Digital audio formats

UNIT – III: Audio Consoles

- Audio mixing principles, transitions, mixer specifications, features and controls
- Digital mixers, channel grouping, integrated mixers with workstation controls, digital audio mixers, phone in consoles in live recordings

UNIT-IV: Audio editing, recording and playback

- Audio tape editing basics, digital audio editing, audio effects, and multi track recording
- Protool and Nuendo editing system features
- Basic recording principles, Tape, CD, Hard disk based recording, audio archiving
- CD /DVD audio player, DAT recorder, Flash recorders, audio synchronization and time code

UNIT-V: Audio processors, cables, connectors and accessories

- Audio processors, Equalizers, Filters, Limiters, compressors, expanders and noise reduction
- Audio connectors, cables, audio distribution and patching, balanced and unbalanced lines, jack-fields
- Loudspeakers, monitoring amplifiers, headphones, classification and performance

Prescribed Text Books:

1. Radio Handbook by Orr, William I., Howard W. Sams & Company (1987).
2. Radio Production Worktext: Studio and Equipment by David E. Reese, Lynne S. Gross and Brian Gross, Taylor and Francis (2006).
3. Audio in Media by Stanley R. Alten, Cengage Learning. 9th Edition, (2010).

Suggested Additional Reading:

1. Master Handbook of Audio Production by Jerry C. Whitaker, McGraw Hill (2001).
2. Acoustic Design and Practice by R.L. Suri, Asia Publishing House (1966).
3. Principals of Digital Audio by Ken C. Pohlmann, McGraw Hill (2010).

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: MCE 514
Course Name: Television Production
Faculty: Kuldeep Singh

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
1. The focus of this course is to expose students to different production techniques of television that will allow them to work in the field of high definition broadcasting and digital media.

2. The emphasis here is on exploring the ways in which television production technology and television industry is co-related.

3. Sensitize students to the development of concepts for documentaries and television programmes, scripting, directing, camera handling, programming, editing etc.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - Class test: 5%
   - Assignments: 10%
   - Class Participation: 5%
   - Presentation: 5%

UNIT I: Television Production: Processes and people (8 hours)

- Production process: introduction
- Pre production: generating idea, idea to script, and script to production.
- Production team: Who Does What When?
- Introduction to television news production.
- Functioning of News channel.
- Television News formats.

UNIT II: Image Creation: Digital Video and Camera (8 hours)

- Basic image formation.
- Digital process: analog and digital signals, digital system, downloading and streaming.
- Video camera: Basic camera function and elements.
- Types of camera.
- Operating the camera: Movements, Mounts and Operational Features.
- Looking through the viewfinder: framing a shot, controlling camera and object motion.

UNIT III: Image Creation: Sound, Light, Graphics, and Effects. (8 hours)

- Audio and sound control: Sound pickup principle.
- Microphones and types, sound control, sound recording and aesthetics.
- Light: types, intensity, Lighting instruments and Techniques.
- Shadows, Color and Contrast.
- Graphics and effects: Principles of graphics, standard electronic video effects, digital effects.

UNIT IV: Image Control: Switching, Recording and Editing. (8 hours)

- Switcher and Switching: Switcher layout, operation, automated production control.
- Video recording: systems, process and use of video recording.
- Non linear editing: phase1- capture, 2- editing, 3-export to video tape or disc.
- Linear editing.
- Offline and Online editing.
- Editing principles: purpose, functions, continuity editing, complexity editing.

UNIT V: Production Environment and Control: Studio, Field, Talent and Directing. (8 hours)

- Production environment: studio-
- Video production studio.
- Studio control room, Master control.
- Electronic news gathering (ENG).
- Electronic field production (EFP).
- Talent, clothing and makeup.
- Script formats, Visualization.
- Preparing for multi camera studio production: Single-camera directing, control room directing.

Prescribed Text Books:

1. Gerald Millerson, Jim Owens. TV production 15th edition. Focal Press Video basics. Herbert zettl.
2. Chatterji,P.C. , (1991), *Broadcasting in India*. SAGE, New Delhi.

Suggested Additional Reading:

1. Fulding, Ken, (1990), Introduction *to Television Production*, Longman, New York.
2. Machin, David & Niblock, Sarah, (2006), *News production: Theory and Practice,* Routledge, New York.
3. Carrel fleming, Radio handbook, 2002, Routledge (London new York)

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: MCE 416

Course Name: e-learning

Faculty: Dr. R. P. Rai

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / classroom activity / contact hours; 5 hours of practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Introduce the students to the basic concepts of e-learning, its importance and dynamics.
- Construct a model to conceptualize, organize and thereby understand the process and techniques of e-learning.
- Familiarize the students with some important e-learning platforms.
- Impart cognitive skills for e-learning course development.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Group Discussion: 10%
  - Presentation 10%

Course Contents

UNIT- I: e Learning **(3 Hours)**

- Conceptual framework
- Scope and challenges
- Digital learning v/s e Learning
- F2F, ODL,e, and blended modes of learning

UNIT- II: Approaches and components **(2 Hours)**

- Self paced and Instructor led
- Asynchronous and synchronous
- Components of e-learning

UNIT - III: Educational techniques and e Learning **(8Hours)**

- LMS (learning management system)
- Moodle
- Smart board
- Video conferencing
- E-learning2.0
- m Learning

UNIT - IV: Attempts and efforts **(3 Hours)**

- Khan academy
- A-view virtual classroom
- Wikis
- CEC, Gyandarshan
- IGNOU

UNIT - V: Developing an e Learning syllabus **(4 Hours)**

- Selecting a model- ADDIE model
- Evaluation,
- Assessment and feedback
- Discussion/debate/forum

ESSENTIAL READINGS:

S.No.	Name of the Book	Author	Year of Publication	Publisher
1	E-Learning Concepts and Techniques	Bloomsburg University of Pennsylvania's Department of Instructional Technology	2006	Springer
2	Research on e-Learning and ICT in Education	Athanassios Jimoyiannis (Editor)	2012	Springer
3	Mobile Learning	Edited by Mohamed Ally	2009	AU Press, Athabasca University

SUGGESTED READINGS:

S.No.	Title of the Book/ Research Manuscript	Author	Year of Publication	Publisher/Journal & Volume, Page No.
	Handbook of e-Learning Strategy	Bill Brandon, Editor	2007	The eLearning Guild
2	CDC's E-learning Essentials	--	January 2013	Centers for Disease Control and Prevention 1600 Clifton Road NE, Atlanta, GA E-mail: cdcinfo@cdc.gov Web: www.atsdr.cdc.gov
3	Plan to Learn: case studies in elearning project management	*Beverly Pasian, M.A.* *Gary Woodill, Ed.D.*	2006	Canadian eLearning Enterprise Alliance

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: MCE 516

Course Name: Mobile and Internet Production

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To make the student aware about the basics of mobile and internet production technology, functions, industry trends, regulatory authorities and future prospectus.
- The focus of this course is to expose students to mobile and internet production techniques that will allow them to develop mobile applications, content development for websites, understand internet and mobile market.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Group Discussion: 5%
  - Home Assignments: 5%
  - Research and presentation 10%

Course Contents:

Unit -I: Introduction to the technology (10 Hours)

- Production fundamentals
- Evolution of mobile and its technology
- Knowing the land marks- iphone, blackberry, Samsung, nokia etc.
- Internet evolution and concepts
- Media convergence- integration of mobile & internet technology

UNIT- II: Mobile applications and mobile news (6 Hours)

- What is mobile applications
- Knowing the different kinds of mobile applications
- News on mobile and multicasting
- Mobile advertising- concept

UNIT - III: The IT regulations (in Indian context) (4Hours)

- Policies and regulatory issues
- Understanding the IT Act

UNIT - IV: Website management and social media (10 Hours)

- Website production and management- fundamentals
- Use of animation and graphics in websites
- What is social media
- Working on facebook, linkedin, etc.
- Working blogger.com, twitter

UNIT - V: Use, trends and future (8 Hours)

- Concept of e-users
- Mobile and internet for e-learning & virtual learning
- E-governance in practice
- Trends in mobile communication industries
- Peeping into the future of mobile and internet world

Research and presentation will consist of:

- ❖ Study of news, shopping, educational, governmental and tour websites (any one)
- ❖ Study of android and windows applications
- ❖ Trend study of mobile industry
- ❖ Blue print of new mobile application

  (To be prepared on any two of the above and presentation should be on ppt)

Reference

1	Broadcasting, Cable, the Internet and Beyond: An Introduction to Modern Electronic Media	Joseph R Dominick	2010	McGraw Hill
2	New Media Technology and the Information Superhighway	J.V. Pavlik&E.D. Everette	1996	Boston: Allyn& Bacon

Suggested readings:

3	Multimedia Communications: applications, Networks, Protocols and standards	Halsall F. Addision	2008	Wesley
4	The Reconstruction of Space and Time: Mobile Communication Practices	Richard Seyler and Ling, Scott W. Campbell	2009	Transaction Publishers

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Course Code: MCE 401

Course Name: Mass Communication: Theories and Processes

Faculty: Dr. Pradeep Nair

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Introduce the students the basic concepts of communication, its importance and dynamics.
- Construct a model to conceptualize, organize and thereby understand the process of communication.
- Familiarize the students with some important theoretical and conceptual issues of communication, its effects and functions in society.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - Class Participation: 5%
  - Group Discussion: 10%
  - Project: 10%

Course Contents:

UNIT- I: Communication **(8 Hours)**

- Meaning, Definition and process of Communication
- Characteristics of Communication
- Stages, Growth and Development of Communication
- Elements of Communication
- Kinds of Communication

UNIT- II: Functions and Barriers of Communication **(8 Hours)**

- Functions of Communication- Information, Instruction, Entertainment
- Persuasion, Debate and Discussion, Culture Promotion
- Interpretation, Linkage, Transmission of Values
- Communication Barriers-

UNIT - III: Models of Communication **(8Hours)**

- Meaning, Definition, Developing Communication Models
- Harold D. Lasswell's Model
- Shannon and Weaver's Model
- Newcomb's Model
- Charles E. Osgood's Model
- George Gerbner's Model
- Westley and Mclean Model
- Wilbur Schramm's Model

UNIT - IV: Theories of Mass Communication **(8 Hours)**

- Aristotle Theory
- Bullet Theory
- Agenda Setting Theory
- The uses and Gratification Theory
- Dependency Theory, Play Theory

UNIT - V: Four Press and Impact Theories **(8 Hours)**

- Normative Theories of mass communication- Authoritarian Theory
- Libertarian Theory
- Social Responsibility theory
- Soviet Communist Theory
- Development Media Theory
- Democratic- Participant Media Theory

- Wilbar Schramm
- Lucian Pye
- Marshal McLuhan

Prescribed Text Books:

1. Baran, Stanley J. & Davis, Dennis K (2011), Mass Communication Theory: Foundations, Ferment and Future, Cengage Learning.
2. McQuail, Denis (2010) Mass Communication Theory, Sage Publications.
3. Stone, Gerald et al., Blackwell (2004), Clarifying Communication Theories– A Hands-on Approach, Reprinted in India by Surjeet Publication, New Delhi.

Suggested Additional Readings:

- DeFleur, Melvin L. (2009), Mass Communication Theories: Explaining Origins, Processes, and Effects, Allyn& Bacon Publications.
- Raymond S. Ross, Persuasion: Communication & Interpersonal Relations, Prentice-Hall, Inc., Englewood Cliffs, N. J., 1974

School of Life Sciences

Centre for Computational Biology & Informatics

School of Life Sciences

Name of the Department: **Centre for Computational Biology & Informatics**
Name of the Programme of Study: **MSc (Computational Biology and Bio-Informatics)**

First Semester

S. No.	Course Code	Course Title	Credit	Pre-requisite/ Co-requisites if any	Name of The Teacher
1.	CBB 402	Modern Biology	2	-	Dr. Yusuf Akhter
2.	CBB 418	Biomolecules	2	-	Dr. Yusuf Akhter
3.	CBB 401	Mathematics in Biology	2	-	Dr. Vikram Singh
4.	CBB 423	Numerical Methods of Computational Biologists	2	-	Dr. Vikram Singh
5.	CBB 403	Introduction to Statistics and Probability	2	-	Dr. P. Aparoy
6.	CBB 405	Basics of Bioinformatics	2	-	Dr. P. Aparoy
7.	CBB 422	Basics of Microbiology and Immunology	2	-	Dr. P. Aparoy
8.	CBB 420	Cell Biology and Genetics	4	-	Mr. Shailender Kumar Verma
9.	CBB 419	Concepts of Molecular Biology	2	-	Mr. Shailender Kumar Verma

Third Semester

S. No.	Course Code	Course Title	Credit	Pre-requisite/ Co-requisites if any	Name of The Teacher
1.	CBB 525	Enzyme Kinetics	2	-	Dr. Yusuf Akhter
2.	CBB 431	Bioanalytical Techniques	2	-	Dr. Yusuf Akhter
3.	CBB 529	Introduction to Dynamical Systems : From Cells to Societies	2	-	Dr. Vikram Singh
4.	CBB 522	Elements of Synthetic Biology	2	-	Dr. Vikram Singh
5.	CBB 412	Computational statistics for Biology	2	-	Dr. Vikram Singh
6.	CBB 513	Chemoinformatics	4	-	Dr. P. Aparoy
7.	CBB 420	Cell Biology and Genetics	4	-	Mr. Shailender Kumar Verma
8.	CBB 527	Plant Bioinformatics	4	-	Mr. Shailender Kumar Verma

University- wide Courses

Courses being offered by the Department for the students of other departments of the University

Sr. No.	Course Code	Course Name	Credit	Code No. of Pre-requisitie/ Co-requisites if any	Full Name of the Teacher
1.	CBB 516	Molecular Evolution & Biodiversity	4	-	Dr. Yusuf Akhter
2.	CBB 504	Genomics & Proteomics	4	-	Dr. Yusuf Akhter/ Shailender K. Verma
3.	CBB 401	Mathematics in Biology	2	-	Dr. Vikram Singh
4.	CBB 529	Introduction to Dynamical Systems : From Cells to Societies	2	-	Dr. Vikram Singh
5.	CBB 419	Concepts in Molecular Biology	2	-	Mr. Shailender Kumar Verma
6.	CBB 425	Basics of Plant Biotechnology	2	-	Mr. Shailender Kumar Verma

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CBB 402

Course Name: Modern Biology

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Introduce students to the basic principles of modern biology
- Acquaint the students about the structure & function of biomolecules
- To understand the molecular mechanisms of key biological processes and their regulation
- Explore the current methodologies and technologies used for analysis of biological processes and to see the current challenges and opportunities for improving the existing technologies or to develop new technologies

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  a) Presentation 10%

b) Class Participation 10%

c) Attendance 5%

Course Contents:

UNIT -I: Cellular and Molecular Basis of Life (4 Hours)

- Cell structure and function
- Molecular composition and organization of cell
- Interactions/ Bonds important in biological systems
- Genetic basis of heredity and variations

UNIT -II: Structure and Function of Proteins (4 Hours)

- Importance of proteins in biological system
- Structure of amino acids and their classification
- Structure of proteins
- Enzymes, their classification and kinetics

UNIT -III: Structure and Function of Nucleic Acids (4 Hours)

- Structures of DNA
- Structure of RNA
- Organization of the nucleic acids
- Organelle genomes

UNIT -IV: Central Dogma of Biology (4 Hours)

- DNA replication in prokaryotes
- DNA replication in eukaryotes
- Transcription
- Translation

UNIT -V Gene Regulation and Developmental Biology (4 Hours)

- Gene regulation in prokaryotes
- Gene regulation in Eukaryotes
- Introduction to Developmental biology
- Gametogenesis, Fertilization, Organogenesis and Cell differentiation

Prescribed Text Books:

1. Voet & Voet. (2011). Biochemistry, (4th edition), Wiley
2. Scott F. Gilbert. (2010). Developmental Biology, (9th edition), Sinauer Associates Inc Publisher, USA.
3. Banjamin Lewin. (2011). Genes-X (10th Edition), Oxford University Press.
4. Watson et al. (2008). Molecular Biology of the Gene (6th edition), Pearson Publications.
5. Lodish H, Berk A, Kaiser C, Krieger M, Scott M, Bretscher A, Ploegh H & MatsudairaP, (2008). Molecular Cell Biology (6th edition), W. H. Freeman Publications.
6. Nelson & Cox, Lehninger. (2008). Principles of Biochemistry 5th edition, W. H. Freeman Publications.
7. Gardner, Simmons and Snustad. (2006). Principles of Genetics, 8th Ed. Wiley Publications.

Suggested Additional Readings:

1. Reece, RJ. (2003). Analysis of Genes and Genomes, John Wiley and Sons Ltd
2. Brown, TA. (2006). Genomes. 3rd Edition, Garland Science
3. Griffiths, Wessler, Carroll, Doebley. (2011). Introduction to Genetic Analysis, Freeman,
4. Price & Nairn. (2009). Exploring Proteins, Oxford University Press

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: **CBB 405**

Course Name: **Basic Bioinformatics**

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: Recent developments of the sciences have produced a wealth of experimental data of sequences and three-dimensional structures of biological macromolecules. With the advances of computer and information science, these data are available to the public from a variety of databases on the Internet. This course will provide an introduction to bioinformatics to interpret the rapidly expanding amount of biological information. Students will learn basic concepts in bioinformatics that are essential for further specialized courses.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
    a. Assignment: 10 %
    b. Presentation/Class room participation: 10 %
    c. Attendance: 5 %

Course Contents:

UNIT - I: **Introduction and Historical Background** **(2 Hours)**

- What is Bioinformatics, introduction.
- Historical developments and evolution of Bioinformatics.
- Importance of Bioinformatics in Life Sciences

UNIT - II: **Biological Databases** **(5 Hours)**

- Introduction
- Primary and Secondary Databases
- Nucleotide Sequence Databases
- Protein Sequence Databases
- Mapping Databases
- Information retrieval from databases

UNIT - III: **Assessing Pairwise Sequence Similarity** **(5 Hours)**

- Types of alignment: Local and Global.
- Scoring matrices
- BLAST
- FASTA
- Comparing FASTA and BLAST

UNIT - IV: **Multiple Sequence Alignments (MSA)** **(4 Hours)**

- The different approaches involved.
- Databases of MSA
- HMM and Statistical methods in MSA
- Evaluation

UNIT - V: **Phylogenetic Analysis** **(4 Hours)**

- Concepts in Molecular Evolution
- Phylogenetic Trees and Dendrograms
- Basics
- How to Construct a tree
- Methods in Phylogenetic reconstructions

Text Books:

- David Mount (2004) Bioinformatics: Sequence and Genome Analysis, Cold Spring Harbor Laboratory Press.
- Arthur M Lesk (2009) Introduction to Bioinformatics, 3rd Edition, Oxford University Press, USA (ISBN-13: 9780199580798)
- Andreas D. Baxevanis, B.F. Francis Ouellette (2009) Bioinformatics : A Practical Guide to the Analysis of Genes and Proteins, 3rd Edition, Wiley (ISBN-13: 9788126521920)

Additional readings:

1. Higgs PG, Attwood TK (2009) Bioinformatics and molecular evolution, Wiley-Blackwell.
2. Andrzej Polanski MK. (2007) Bioinformatics. Springer.

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: CBB 431

Course Name: Bioanalytical Techniques

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Introduce students about the techniques used to study biochemical analysis of cellular structures and macromolecules
- Acquaint students to the basic principles of various immunochemical techniques
- To understand the techniques to monitor how the structure and dynamics of biomolecules enables specific biological functions

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  a. Assignment: 10%
  b. Class Test: 5%
  c. Presentation: 10%

Course Contents:

UNIT -I: Introduction to Centrifugation and Microscopy (4 Hours)

- Basic principles of centrifugation and types of centrifuges
- Preparative and Analytical Centrifugation
- Light Microscope
- Stereomicroscope

UNIT -II: Mass Spectrometric Techniques (4 Hours)

- Introduction, Ionisation
- Mass analysers, Detectors
- Structural Information by tandem mass spectrometry
- Analysing protein complexes

UNIT -III: Electrophoretic Techniques (4 Hours)

- Introduction, Electrophoresis of proteins
- Electrophoresis of proteins
- Electrophoresis of nucleic acids
- Electrophoresis of nucleic acids and capillary electrophoresis

UNIT -IV: Chromatographic Techniques (4 Hours)

- Principle of chromatography
- Liquid chromatography and high performance liquid chromatography
- Adsorption, Partition and Ion Exchange Chromatography
- Molecular exclusion, gas liquid and thin layer chromatography

UNIT –V: Spectroscopic Techniques (4 Hours)

- Introduction to Spectroscopic Techniques
- X-Ray Spectroscopy; applications
- Nuclear magnetic resonance spectroscopy; applications
- Circular Dichromism and Electron spin spectroscopy; applications

Prescribed Text and Reference Books:

1).Biochemistry and Molecular Biology, 7th edition, Keith Wilson and John Walker

2) Fundamentals Of Bioanalytical Techniques And Instrumentation, Ghosal & Srivastava,2009, Published by Ashoke K. Ghosh.

3) Introduction to Biophysical Methods for Protein and Nucleic Acid Research , Jay A. Glasel, Murray P. Deutscher and Murray P. Deutscher, ISBN: 978-0-12-286230-4

4). Biophysical Techniques ,Iain Campbell, 368 pages ,16 February 2012.

Other Readings

Sr. No.	**Jouranls atricles (specific articles, *Complete reference*)**
1	Spectroscopic Methods in Biochemistry —Principles and Applications, © Jörg H. Kleinschmidt WS 2000/2001
2	A review of chromatographic methods for the assessment of phospholipids in biological samples,2005; Brianna L. Peterson and Brian S. Cummings, BIOMEDICAL CHROMATOGRAPHY, Biomed. Chromatogr. 20: 227–243 (2006)
3	An Introduction to Mass Spectrometry, 1998,Scott E. Van Bramer

Relevant Websites

Sr. No.	**Web address**	**Salient Features**
1	Journal of Biochemical and Biophysical Methods (http://www.sciencedirect.com/science/journal/0165022X)	methodological aspects of biochemistry,biophysics,molecular genetics and cellular biology

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: **CBB 515**

Course Name: Computer Aided Drug Discovery

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

This course will be centred on

- When to use CADD methods in your research (and when not to).
- Which methods are best to use to solve your particular research problems.
- Structure Based and Ligand based drug design approaches and examples.
- Role of Scaffold Hopping in modern drug discovery

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
    a) Class room participation 10 %
    b) Assignments 10 %
    c) Attendance 5%

Course contents:

Unit –I: Introduction to Drug Discovery: **(5 Hrs)**

- Introduction to Drug Discovery process
- Traditional and Rational Drug Discovery
- Clinical Trials

Unit –II: Introduction to Proteins **(5 Hrs)**

- Proteins: Amino acids
- Levels of Protein Structure
- Molecular Visualization programs, Active site analysis

Unit –III: Structure Based Drug Design **(18 Hrs)**

- Protein Structure Prediction; Homology modelling
- Docking and its applications : Various search algorithms and scoring functions
- *De novo* drug design methods
- Virtual screening and its applications
- Energy minimization methods
- Molecular Dynamics

Unit –IV: Ligand Based Drug Design **(12 Hrs)**

- QSAR
- Pharmacophore Modelling
- Pseudoreceptor Modelling
- Scaffold Hopping
- Success stories of CADD

Reference books:

1. Andrew Leach (2009) Molecular Modelling: Principles and Applications, Pearson Education (ISBN-13: 9788131728604).
2. Kenneth M. Merz, Dagmar Ringe, Charles H. Reynolds (2010) Drug Design: Structure- and Ligand-Based Approaches, Cambridge University Press (ISBN-13: 9780521887236)
3. Lipkowitz, KB, Boyd, DB, Eds (1997) Reviews in Computational Chemistry; John Wiley & Sons, Inc.: Hoboken, NJ, USA (ISBN: 9780471192480)

Additional Readings

1. David L. Nelson, Michael M. Cox (2012) Lehninger Principles of Biochemistry 6th Edition, MAC publisher (ISBN-13: 9781464109621)
2. Laurie AT, Jackson RM. Methods for the prediction of protein-ligand binding sites for structure-based drug design and virtual ligand screening. Curr Protein Pept Sci. 2006 Oct;7(5):395-406. Review. PubMed PMID: 17073692.
3. Krieger E, Nabuurs SB, Vriend G. Homology modeling. Methods Biochem Anal. 2003;44:509-23. Review. PubMed PMID: 12647402.
4. Dias R, de Azevedo WF Jr. Molecular docking algorithms. Curr Drug Targets. 2008 Dec;9(12):1040-7. Review. PubMed PMID: 19128213.
5. Oda A, Tsuchida K, Takakura T, Yamaotsu N, Hirono S. Comparison of consensus scoring strategies for evaluating computational models of protein-ligand complexes. J Chem Inf Model. 2006 Jan-Feb;46(1):380-91. PubMed PMID: 16426072.
6. Warren GL, Andrews CW, Capelli AM, Clarke B, LaLonde J, Lambert MH, Lindvall M, Nevins N, Semus SF, Senger S, Tedesco G, Wall ID, Woolven JM, Peishoff CE, Head MS. A critical assessment of docking programs and scoring functions. J Med Chem. 2006 Oct 5;49(20):5912-31. PubMed PMID: 17004707.
7. Bissantz C, Kuhn B, Stahl M. A medicinal chemist's guide to molecular interactions. J Med Chem 53 (2010) 5061-5084.
8. Sun H. Pharmacophore-based virtual screening. Curr Med Chem. 2008;15(10):1018-24. Review. PubMed PMID: 18393859.
9. Hans-Joachim Böhm, Alexander Flohr, Martin Stahl, Scaffold hopping, Drug Discovery Today: Technologies, Dec 2004; 1 (3) :217–24.

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[ESTABLISHED UNDER THE CENTRAL UNIVERSITIES ACT 2009]
PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CBB 525

Course Name: Enzyme Kinetics

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Introduce students about the structure & function of enzymes
- Acquaint students to the basic principles of enzyme kinetics
- To understand the molecular mechanisms of enzyme catalysis
- To understand the enzyme inhibition and its types

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  a) Presentation 10%
  b) Class Participation 10%
  c) Attendance 5%

Course Contents:

UNIT -I: Introduction to Enzymes (4 Hours)

- Enzymes, Enzyme commission's system of classification and significance of EC number
- Mechanism of action of enzyme catalysis and factors affecting catalytic power and specificity
- Structure of Proteins
- Monomeric and Oligomeric Enzymes

UNIT -II: Introduction to bioenergetics, catalysis and kinetics (4 Hours)

- Concepts of bioenergetics
- Factors affecting rates of chemical reactions
- Kinetics of uncatalysed chemical reactions
- Kinetics of enzyme catalysed reactions

UNIT -III: Kinetics of Single substrate Enzyme Catalysed Reactions (4 Hours)

- Henri and Michaelis-Menten Equation; significance and its modification
- Lineweaver- Burk Plot, Eadie- Hofstee and Hanes Plot
- Eisenthal and Cornish- Bowden plot, Haldane relationship for reversible reactions
- Rapid Reaction Kinetics

UNIT -IV: Enzyme Inhibition (4 Hours)

- Reversible Inhibition: Competitive and Uncompetitive Inhibition
- Non-competitive Inhibition and Mixed Inhibition
- Partial Inhibition and Substrate Inhibition
- Allosteric Inhibition and Irreversible Inhibition

UNIT –V: Kinetics of Multi-Substrate Enzyme- Catalyzed Reactions (4 Hours)

- Ping-pong bi-bi, Random-order and Compulsory-order Mechanisms
- Steady State Kinetics
- Investigation of Reaction Mechanisms using Steady- State Methods
- Investigation of Reaction Mechanisms using Non Steady- State Methods

Prescribed Text Reference Books:

1).Understanding Enzymes,Trevor Palmer,Prentice Hall,4th Ed,1995

2. Biochemistry By Lubert Stryrer,3rd Ed.,1995,W.F. Freeman and Co., New York.

3. Enzyme Structure and Mechanisms, Alan Ferst,W.M. Freeman, New York,1985.

Other Readings

Sr. No.	**Jouranls atricles (specific articles, *Complete reference*)**
1	Muller J, Morrison DK (2002). Assay of Raf-1 activity. Methods in Enzymology 345: 490-498
2	Reszka, R and Jacobs, A and Voges, J (2005) Liposome-mediated suicide gene therapy in humans. Methods in Enzymology, 391 . 200-208. ISSN 0076-687
3	Methods in enzymology. Vol. 89, carbohydrate metabolism, part D : Edited by , Academic Press, New York, 1982. 656

Relevant Websites

Sr. No.	**Web address**	**Salient Features**
1	Methods in enzymology. Vol. 89, carbohydrate metabolism, part D : Edited by , Academic Press, New York, 1982. 656	Lesson of properties of enzymes
2	www.proteinscience.org	All types of enzyme mechanisms are mentioned in this website

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CBB 411

Course Name: Introduction to PERL Programming

Instructor: Dr. Vikram Singh

Credits Equivalent: 2 Credits

(One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: Programming skills constitute the core part of the MSc curriculum on Computational Biology and Bioinformatics.

This course is designed to

- Helpstudents in developing logical skills.
- Introduce them the basic syntax of PERL programming.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
    - Class participation 5%
    - Attendance 5%
    - Class test 10%
    - Assignments 5%

Course Contents

Unit 1: Introduction to programming and PERL data types (5 hours)

Introduction to programming languages, Machine level v/s high level languages.

Introduction to PERL, #!, Basic input/output variables. Usage of ‘use strict’ and ‘use warning’ pragma.

Scalar variables: Numeric and String operators.

Single and double quoted strings, backslash interpolation, substr function.

Lists and Arrays: Accessing elements of an array, Special array indices, Scalar and List context.

Array functions: push, pop, shift, unshift, join, split, splice, sort.

Hashes: Accessing elements of a hash.

Hash functions: keys, values, exists, defined, delete, each.

Unit 2: Control structures **(4 hours)**

Decision Making (Branching) Structures – if andif-else statements, Nested if-else statement, else-if ladder.

Looping Structures – for, foreach, while, do-while, until and do-until statements.

next, last, continue, exit, redo statements.

Unit 3: Input methods, File Operations and Randomization **(3 hours)**

Input from standard input, Input from the diamond operator. Chop and chomp operators.

To read, write, append, open and close files. Using pathnames and filenames.Usage of die function.

Generating random numbers and their applications in Biology.

Unit 4: Regular Expressions **(4 hours)**

Matching with regular expressions. Matching with m//. Binding operator =~

Pattern matching, substitution operator, transliteration operator.

Regexp basics, modifiers, quantifiers, metacharacters.

Unit 5: References, Subroutines and Introduction to BioPERL (4 hours)

References, Two dimensional arrays in PERL.

Global and Local variables. Subroutines – (i) Pass by Value, (ii) Pass by reference.

Writing Modules, Creating BioPERL Objects.

Text Books:

1. Schwartz *et al.*(2011), Learning PERL. O'Reilly
2. James Tisdall(2001), Beginning PERL for Bioinformatics. O'Reilly
3. James Tisdall(2007), Mastering PERL for Bioinformatics. O'Reilly

Additional Readings:

4. Christiansen*et al.*(2012), Programming PERL. O'Reilly

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CBB 413

Course Name: Practical course on PERL

Instructor: Dr. Vikram Singh

Credits Equivalent: 2 Credits

(One credit is equivalent to 20 hours of lectures / organised classroom activity / contact hours; 10 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 30 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: This course is designed to give students an opportunity for implementing the theoretical understanding of PERL programming (learned in the course CBB 411) into the PERL scripts.

Upon successful completion of this course students will be able to apply the knowledge of PERL programming to develop the applications in Computational Biology and Bioinformatics.

Pre-requisite: CBB411 Introduction to PERL Programming

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
    - Class Test 10%
    - Assignments 5%
    - Home work 10%

Course Contents

Unit 1: Understanding PERL data types (Scalar, Array, Hash) and usage of mathematical and string operators. (8 hours)

1. Using Mathematical operators (Addition, Subtraction, Multiplication, Division, Modulus operators)
2. Using String operators (Concatenation, Repetition operators)
3. To calculate Area and Volume of basic objects (circle, sphere, parallelogram cube etc.).
4. Finding reverse complement of a DNA sequence.
5. Transcription, Reverse Transcription.

Unit 2: Learning Control Structures (10 hours)

1. Counting nucleotides in the given DNA sequence.
2. Translating a DNA sequence into an amino acid sequence in all six reading frames.
3. To check if a given number is even, odd or prime. To generate first *n* terms of Fibonacci series.
4. To calculate the factorial of a given number.
5. Finding sum of first n terms of a given algebraic series.
6. To check if the given number or string is palindrome.

Unit 3: Input Methods, File Operations and Randomization **(6 hours)**

1. Reading and writing DNA and/or protein data from/into a file.
2. Generating random DNA, random protein sequence.
3. Simulating DNA mutation.
4. Finding % identity between two random DNA sequences.

Unit 4: Regular Expressions **(8 hours)**

1. Finding motifs in DNA or protein sequences.
2. Parsing FASTA, Genbank and PDB files.
3. Parsing BLAST output.

Unit 5: References, Subroutines and introduction to BioPERL **(8 hours)**

1. Reading and writing a 2-dimensionl matrix in PERL
2. Writing subroutines for the programs of units 1 and 2.
3. Writing PERL modules
4. Usage of CPAN
5. Creating simple BioPERL objects.

Text Books:

1. Schwartz *et al.* (2011), Learning PERL. O'Reilly
2. James Tisdall (2001), Beginning PERL for Bioinformatics. O'Reilly
3. James Tisdall (2007), Mastering PERL for Bioinformatics. O'Reilly

Additional Readings:

1. Christiansen *et al.* (2012), Programming PERL. O'Reilly

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: **CBB 420**

Course Name: **Cell biology and genetics**

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- Introduce students to the steps and key elements of foundation of life.
- To study the regulatory elements in cellular biology.
- Fundamentals of life at cellular level

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
   a. Assignment: 10%
   b. Class Test: 5%
   c. Presentation: 10%

Course Contents:

UNIT-I: fundamentals of Genetics **(8 hours)**

- Mendelian genetics
- Genetic material: properties and replication
- Structure and replication of eukaryotic chromosomes

- Linkage crossing over and chromosome mapping
- Transposable genetic elements
- Gene expression
- Mutation
- Recombination

UNIT-II: Change, Structure and function of genetic material (8 hours)

- Genetic fine structure
- Chromosome number variation
- Gene regulation and manipulation
- Gene frequencies and equilibrium
- Inbreeding and heterosis
- Speciation and evolution

UNIT-III: Cell structure and function (8 hours)

- Visualizing, fractionating and culturing cells.
- Biomembrane structure
- Transmembrane transport of ions and small molecules
- Cellular energetics
- Moving proteins into membranes and organelles
- Vesicular traffic, secretion and endocytosis
- Cell signaling
- Cell organization and movement
- Integrating cells into tissues

UNIT-IV: Cell growth and development (8 hours)

- The cell divison cycle
- Mechanics of cell division cycle
- Regulating the eukaryotic cell cycle
- Cell birth, lineage and death
- Germ cells and fertilization
- The molecular cell biology of development

UNIT-V: Advances in genetics and cell biology (8 hours)

- Developmental genetics
- Population genetics
- Quantitative genetics
- Evolutionary genetics
- Genetics of behavior

- Genetic engineering and the future
- Nerve cells
- cellular immunology
- Cancer

TEXTBOOKS

1. Bruce Alberts, Alexander Johnson, Julian Lewis, Martin Raff, Keith Roberts, and Peter Walter: Molecular Biology of the Cell, Garland Sciences, 4th edition, 2002.
2. Eldon J. Gardner, Michael J. Simmons, D. Peter Snustad: Principles of genetics, Wiley India Pvt. Ltd., 8th edition 2011.
3. Harvey Lodish, Arnold Berk, Chris A. Kaiser, Monty Krieger, Matthew P. Scott, Anthony Bretscher, Hidde Ploegh: Molecular Cell Biology, W.H.Freeman and Company, 6th edition 2008.

ADDITIONAL READINGS

1. Monroe E. Strickberger (2008) Genetics. Phi Learning

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CBB 522

Course Name: Elements of Synthetic Biology

Instructor: Dr. Vikram Singh

Credits Equivalent: 2 Credits

(One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to introduce students the concepts of synthetic biology – a field of study at the interface of (i) complexity of biological systems and (ii) techniques of traditional engineering. This course is designed to acquaint students about the following basic questions:

- Can we study and understand biology as an engineering discipline?
- Why is it necessary to consider stochasticity while modeling biological processes?
- What are the basic parts and devices that have been successfully bioengineered?
- What are the implications of Synthetic Biology on the society?

Attendance Requirements: Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
    - 5% class participation,
    - 20% assignment and presentation

Course Contents

UNIT I: Introductory Interdisciplinary Concepts (4 Hours)

- Definition and scope of Systems biology and Synthetic biology.
- Engineering concepts: parts, devices, circuits -- digital vs. analog, logic gates.
- Biological complexity: Self organization, Emergence, Robustness.
- Introduction to genetic engineering and metabolic engineering.
- Lambda switch and Chemotactic module in *E coli*.

UNIT II: Linear stability and bifurcation analysis (4 Hours)

- First-order systems: fixed points and stability, population growth. Saddle-node, transcritical and pitchfork bifurcations.
- Second-order systems: phase portraits, fixed points and linearization. Attractors and limit cycles. Hopf bifurcations.

UNIT III: Standards and parts in Synthetic Biology (4 Hours)

- Lac operon, Quorum sensing, Promoter designing
- MIT Registry of standard biological parts
- Bio-brick and non-biobrick initiatives, iGEM events.
- DNA writing technologies, artificial genes, zinc fingers, never born proteins.

UNIT IV: Bio-engineered Synthetic Circuits (4 Hours)

- Gates: AND gate
- Counters: Pulse generators
- Switches: Toggle switch
- Oscillators: Repressilator, mammalian oscillator
- Brief overview of cascades, time delayed circuits, spatial patterning, biosensors, and other logical formula driven circuits.

UNIT V: From Modules to Systems (4 Hours)

- Integrating gene circuits
- DNA Origami, Genome Synthesis
- Minimal synthetic cell, Multicellular synthetic systems
- Bio-energetics and Bio-fuels
- **Safety and Legal issues:** Bio-security, Bio-safety

Text Books:

1. **Steven H. Strogatz (1994).** Nonlinear Dynamics and Chaos: With Applications to Physics, Biology, Chemistry, and Engineering. Perseus Books, Massachusetts.
2. **Chris Myers (2009). Engineering Genetic Circuits. Chapman & Hall.**
3. **Huimin Zhao (2013).** Synthetic Biology: Tools and Applications. Academic Press.

Additional Readings:

1. **EddaKlipp*et al.* (2009).**Systems Biology: A Textbook. Wiley-VCH.
2. **Freemont and Kitney (2012).** Synthetic Biology: A Primer. World Scientific
3. **Fu and Panke (2009).** Systems Biology and Synthetic Biology. Wiley, New Jersy.
4. Presidential Commission for the Study of Bioethical Issues (2010). NEW DIRECTIONS: Ethics of Synthetic Biology and Emerging Technologies. (http://bioethics.gov)

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[ESTABLISHED UNDER THE CENTRAL UNIVERSITIES ACT 2009]
PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CBB 527

Course Name: Plant Bioinformatics

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to introduce the fundamentals, theoretical and practical aspects of plant bioinformatics and its significance in life science and agricultural research

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
    a. Assignment: 10%
    b. Class Test: 5%
    c. Presentation: 10%

Course Contents

UNIT I Plant specific databases and sequence searching 9 Hours

- The EMBL Nucleotide Sequence and Genome Reviews Databases
- A Collection of Plant-Specific Genomic Data and Resources at NCBI
- Plant databases
- Exploiting plant genomes in term of polyploidy

UNIT II Plant genome mapping **8 Hours**

- Genetic mapping
- Physical mapping
- Integration of genetic and physical maps
- QTL mapping and radiation hybrid mapping

UNIT III Plant functional genomics and proteomics **8 Hours**

- Plant RNAs and Plant expression data
- Microarray and MIAME database
- Introduction to array express
- Plant transcriptome assembly
- Retrieving and validating data at PRIDE database

UNIT IV Plant metabolomics and plant microbiome metagenomics **8 Hours**

- Plant Microbiomes & metagenomics
- Metabolomics assisted plant breeding
- Tools and Techniques in metabolomics
- Metabolomics Data Analysis, Visualization, and Integration

UNIT V Plant interactomes, networks and pathways **7 Hours**

- Introduction to Bio PERL and Bio Linux
- Data integration for gene discovery in plant genetics and genomics
- Data integration, visualization and analysis through Ondex
- Build, visualize and analyze network with cytoscape
- Computational morphodynamics

Text Books:

1. David Edwards. (2007) Plant Bioinformatics: Methods and Protocols. Humana Press, Springer.
2. Khalid Meksem and Gunter Kahl (2005) The handbook of plant genome mapping. Wiley-VCH
3. Wolfram Weckwerth and Gunter Kahl () The handbook of plant metabolomics. Wiley-VCH

Additional Readings:

1. Allwood JW, Ellis DI, Goodacre R. (2008) Metabolomic technologies and their application to the study of plants and plant-host interactions. Physiol Plant. 132(2)
2. Berendsen RL, Pieterse CM, Bakker PA. (2012)The rhizosphere microbiome and plant health. Trends Plant Sci. 17(8):478-86
3. Brazma A, Hingamp P, Quackenbush J, Sherlock G, Spellman P, Stoeckert C, Aach J, Ansorge W, Ball CA, Causton HC, Gaasterland T, Glenisson P, Holstege FC, Kim IF, Markowitz V, Matese JC, Parkinson H, Robinson A, Sarkans U, Schulze-Kremer S, Stewart J, Taylor R, Vilo J, Vingron M (2001) Minimum information about a microarray experiment (MIAME)-toward standards for microarray data. Nat Genet. 29(4):365-71.
4. Brazma A, Parkinson H, Sarkans U, Shojatalab M, Vilo J, Abeygunawardena N, Holloway E, Kapushesky M, Kemmeren P, Lara GG, Oezcimen A, Rocca-Serra P, Sansone SA. (2003) ArrayExpress--a public repository for microarray gene expression data at the EBI. Nucleic Acids Res. 31(1):68-71.
5. Chae L, Lee I, Shin J, Rhee SY. (2012)Towards understanding how molecular networks evolve in plants. Curr Opin Plant Biol. 15(2):177-84
6. Chen S, Harmon AC.(2006) Advances in plant proteomics. Proteomics. 6(20):5504-16.
7. Chickarmane V, Roeder AH, Tarr PT, Cunha A, Tobin C, Meyerowitz EM. (2010) Computational morphodynamics: a modeling framework to understand plant growth. Annu Rev Plant Biol. 61:65-87
8. Köhler J, Baumbach J, Taubert J, Specht M, Skusa A, Rüegg A, Rawlings C, Verrier P, Philippi S. (2006) Graph-based analysis and visualization of experimental results with ONDEX. Bioinformatics. 22(11):1383-90.
9. Leonelli S. (2013) Integrating data to acquire new knowledge: Three modes of integration in plant science. Stud Hist Philos Biol Biomed Sci.
10. Martens L, Hermjakob H, Jones P, Adamski M, Taylor C, States D, Gevaert K, Vandekerckhove J, Apweiler R.(2005) PRIDE: the proteomics identifications database. Proteomics. 5(13):3537-45.
11. Shannon P, Markiel A, Ozier O, Baliga NS, Wang JT, Ramage D, Amin N, Schwikowski B, Ideker T. (2003) Cytoscape: a software environment for integrated models of biomolecular interaction networks. Genome Res. 13(11):2498-504.
12. Ward JA, Ponnala L, Weber CA. (2012) Strategies for transcriptome analysis in nonmodel plants. Am J Bot. 99(2):267-76

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[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: CBB 529

Course Name: Introduction to Dynamical Systems: From Cells to Societies

Instructor: Dr. Vikram Singh

Credits Equivalent: 2 Credits

(One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to introduce students with the basic underlying principles of non-linear dynamical systems that are ubiquitous across all walks of life. Although this course is drafted for the study of biological systems, students will also be familiarized with the common features shared by systems from life sciences, physical sciences, social sciences as well as languages. The course will focus on following topics:

- Systems modeling by differentialequations and/or difference equations.
- Stability analysis.
- Agent based modeling and stochastic methods.
- Study of systems as a complex network.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
    - Attendance 5%,
    - Class Participation 5%,
    - Assignment and Presentation 15%

Course Contents

UNIT I: Elementary Concepts (4 Hours)

- Linear vs. Nonlinear Systems: Examples from Natural Sciences, Life Sciences, Social Sciences and Languages.
- Mean-field type vs. Agent based modeling.
- Fractals.
- Power laws and Self Organized Criticality.

Unit II: Linear stability and bifurcation analysis (4 Hours)

- First-order systems: fixed points and stability, population growth. Saddle-node, transcritical and pitchfork bifurcations.
- Second-order systems: phase portraits, fixed points and linearization. Attractors and limit cycles. Hopf bifurcations.
- Software to learn: XPPAut

UNIT III: Modeling Methodologies for Dynamical Systems (4 Hours)

- Iteration of maps, differential equations
- Deterministic approach: Euler and RK4 methods
- Stochastic approach: Monte-Carlo methods
- Agent Based Modeling
- Modeling Natural Systems: Predator-Prey, Brusselator, Circadian Rhythms, p53-mdm2 network.

UNIT IV: Design Principles of Systems Architecture (4 Hours)

- Random Networks: Erdös-Renyi model, Small world networks.
- Scale-free networks, Modular networks, Hierarchical networks.
- Origin of Life: Autocatalytic reaction network approach.
- Cellual Automata -- Conway's game of life.
- Softwares to learn: Pajek, Cytoscape, Mfinder, Graphviz, Netlogo etc.

UNIT V: Network Properties (4 Hours)

- Local Properties: Centrality measures, clustering coefficients etc.
- Global Properties: Regulatory motifs in networks.
- Topology of genetic, metabolic, ecological, social, transport and language networks.
- Dynamics on networks.

Text Books:

1. **Steven H. Strogatz (1994).** Nonlinear Dynamics and Chaos: With Applications to Physics, Biology, Chemistry, and Engineering. Perseus Books, Massachusetts.
2. **Mark Newman (2010).** Networks: An Introduction. Oxford University Press.
3. **Nino Boccara (2010).** Modeling Complex Systems. Springer, New York.

Additional Readings:

1. **Uri Alon (2006).** An Introduction to Systems Biology: Design Principles of Biological Circuits. Chapman and Hall/CRC.
2. **Junker and Schreiber (2008).** Analysis of Biological Networks. Wiley-Interscience, New Jersy.
3. **Matthew O. Jackson (2010).** Social and Economic Networks. Princeton University Press.

School of Mathematics, Computers & Information Science

Department of Mathematics

School of Mathematics, Computers & Information Science

Name of the Department: **Department of Mathematics**

Name of the Programme of Study: **MSc Mathematics with specialisation in Industrial Mathematics**

Courses for Semester I

Sr. No.	Course code	Course name	Credits	Code no. Of pre-requisitie/ co-requisites if any	Teacher
1	IAM 402	ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS	4	NA	Dr. Rakesh
2	IAM 404	MATHEMATICAL METHODS	4	NA	Dr. Rakesh
3	IAM 401	COMPLEX ANALYSIS	4	NA	Dr. R. Singh
4	MTH 403	LINEAR ALGEBRA	4	NA	Dr. S. K. Srivastava

Courses for Semester III

Sr. No.	Course code	Course name	Credits	Code no. Of pre-requisitie/ co-requisites if any	Teacher
1	MTH 510	NUMBER THEORY	4	NA	Dr. R. Singh
2	IAM 407	DIFFERENTIAL GEOMETRY	4	NA	Dr. S. K. Srivastava
3	IAM 550	PROJECT AND SEMINAR BASED ON PRACTICAL TRAINING WITH INDUSTRY	4	NA	Dr. R. Singh Dr. Rakesh Dr. S. K. Srivastava
4	CSI 525	DISCRETE MATHEMATICS	2	NA	Dr. Rakesh

University Wide Courses

Sr. No.	Course code	Course name	Credits	Code no. Of pre-requisitie/ co-requisites if any	Teacher
1	IAM 401	COMPLEX ANALYSIS	4		Dr. R. Singh
4	IAM 407	DIFFERENTIAL GEOMETRY	4		Dr. S. K. Srivastava
3	CSI 525	DISCRETE MATHEMATICS	2		Dr. Rakesh

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Course Code: MTH-510

Course Name: Number Theory

Instructor Name: Dr Ravinder Singh

Credit Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must, failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - i) Assignment 15%
   - ii) Class participation 5%
   - iii) Class tests 5%

Course Contents:

Unit-I: Divisibility of Integers, and simple properties. Unique Factorization in Integers, Unique Factorization in a Polynomial ring over a Field.Congruences, Linear Congruences, Solutions of Congruences.The Chinese Remainder Theorem.Unique Factorization in Principal Ideal Domains.The Gaussian Integers Ring.Infinitude of Primes in Integers.**[10 Lectures]**

Unit-II: Arithmetical Functions, another proof of infinitude of Primes. Prime counting function.Prime power Moduli, Prime Modulus, Primitive Roots.N-th Power residues.Congruences of Degree two, Prime Modulus.**[10 Lectures]**

Unit-III: Quadratic Residues, The Law of Quadratic Reciprocity, Jacobi Symbols. Proof of Law of Quadratic Residues.Sums of Two Squares.Introduction to Algebraic Numbers and Algebraic Integers.Quadratic Character of 2.The Quadratic Gauss Sums.**[10 Lectures]**

Unit-IV: Finite Fields, Existence of Finite Fields. An application to Quadratic Residues. Multiplicative Characters, Gauss Sums, Jacobi Sums. Equations in Finite Fields.Introduction to Cubic and Biquadratic Reciprocity.**[10 Lectures]**

Prescribed Text Book:

- K. Ireland and M. Rosen, "A Classical Introduction To Modern Number Theory", Second Edition, Springer.

Suggested Additional Reading:

1. I. Niven, H. Zuckerman and H. Montgomery, "An Introduction to Theory of Numbers", Second Edition, John Wiley and Sons.
2. G. Hardy and E. Wright, "An Introduction to Theory of Numbers" Fifth Edition, Oxford University Press.

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Course Code: IAM 402 **Credits: 04**
Course Name: Ordinary and Partial Differential Equations **Name of Teacher: Dr Rakesh Kumar**

Credits Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The purpose of this course is to acquaint the students with the fundamentals of ordinary and partial differential equations, and their applications.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counselling, Activities and Tutorials (CAT): 25%

i. Subjective / Objective Assignment: 10 %
ii. Numerical Assignments using programming: 10 %
iii. Presentations and Class Tests: 5 %

Course Contents:

Unit I: First order differential equations, the existence and uniqueness theorem; second and higher order linear differential equations; method of variation of parameters, method of undetermined coefficients, reduction of order method, system of first order linear differential equations. **(12 Hours)**

Unit II: Partial differential equations and Fourier series; method of separation of variables; heat, wave and Laplace equations; two-point boundary value problems; Sturm-Liouville boundary value problems; non-homogeneous boundary value problems; singular Sturm-Liouville problems; series of orthogonal functions: mean convergence; method of eigenfunction expansion. **(10 Hours)**

Unit III: Non-linear differential equations and stability, linear systems and phase plane; autonomous systems and stability; locally linear systems; competing species; predator-prey equations; Liapunov's second method; periodic solutions and limit cycles; chaos and strange attractors. **(10 Hours)**

Unit IV: Some asymptotic methods for strongly non-linear equations: variational approaches- Ritz method, bifurcation, limit cycle, variational iteration method; parameter expanding methods- modifications of Lindstedt Poincare method, bookkeeping parameter; parameterized perturbation method; homotopy perturbation method- periodic solution and bifurcation; iteration perturbation method. **(08 Hours)**

Prescribed Text Books:

1. R.K. Nagle, E.B. Saff and A.D. Snider (2012). Fundamentals of Differential Equations and Boundary Value Problems, Sixth Edition, Addison Wesley.

2. W.E. Boyace and R.C. Diprima (2013). Elementary Differential Equations and Boundary Value Problems, Ninth Edition, Wiley.
3. Ji-Huan He, (2006). Some Asymptotic Methods for Strongly Nonlinear Equations, Int. J. of Modern Physic B, VOL. 20 (10), pp. 1141-1199.

Suggested Additional Readings:

1. A.C. King, J. Billingham and S.R. Otto (2005). Differential Equations: Linear, Nonlinear, Ordinary, Partial, First Edition. Cambridge University Press.
2. S.L. Ross (1984). Differential Equations. Third Edition. John Wiley & Sons Inc.
3. A.H. Nayfeh (1981). Introduction to Perturbation Techniques. First Edition John Wiley & Sons Inc.
4. I.N. Sneddon (2006). Elements of Partial Differential Equations. Dover Publications. Mineola, New York.

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Course Code: IAM 404 **Credits: 04**
Course Name: Mathematical Methods **Name of Teacher: Dr. Rakesh Kumar**

Credits Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The purpose of this course is to acquaint the students with mathematical methods and enable them to solve the problems in the fields of physical, medical and information sciences; and in industry.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counselling, Activities and Tutorials (CAT): 25%

i. Subjective / Objective Assignment: 10 %
ii. Numerical Assignments using programming: 10 %
iii. Presentations and Class Tests: 5 %

Course Contents:

Unit I: Heaviside step function, Dirac-Delta function,Green's operator and function, linear differential operator, Inner product and norm, adjoint operators, Sturm-Liouville operator, eigenfunctions and Green's function, higher dimensional operators, generalized Green's function, non-self-adjoint operators.

(08 Hours)

Unit II: Integral equations: classification of integral equations; conversion from IVP to Volterra integral equations and conversely; conversion from BVP to Fredholm integral equations and conversely; Integral equations with separable kernels, Symmetric kernels, fundamental properties of eigenvalues and eigenfunctions, Hilbert Schmidt theorem and consequences, solution of symmetric integral equations, operator method, Rayleigh-Ritz method; Singular integral equations- Abel's integral equation, Cauchy type integral equations, Hilbert type integral equations. **(12 Hours)**

Unit III: Fourier Transforms: Fourier integral theorem; properties of Fourier transforms; Fourier transform of elementary functions, derivatives; transforms of integrals; Parseval's theorem; Fourier transform and Delta function; convolution; multiple Fourier transforms applications of Fourier transforms; Hilbert transform, Hilbert transforms on a unit circle, finite Hilbert transforms, discrete Fourier transform, fast Fourier transform, Cooley-Tukey algorithm, Sandy-Tukey algorithm.

(12 Hours)

Unit IV: Laplace transforms; properties of Laplace transforms, convolution integral, inversion using elementary properties, inversion using the residue theorem, inversion requiring branch cuts, theorems of Tauber, applications of Laplace transforms, sequences and Z-transforms.

(08Hours) **Prescribed**

Text Books:

1. S. Nair (2011). Advanced Topics in Applied Mathematics for engineering and Physical Sciences, Cambridge University Press.
2. R. P. Kanwal (1971). Linear Integral Equations: Theory and Techniques, Academic Press, INC.

3. A.M. Wazwaz (2011). Linear and Nonlinear Integral Equations: Methods & Applications, Springer.

Suggested Additional Readings:

1. F.G. Tricomi, (1985). Integral Equations, Cambridge University Press.
2. J.W. Brown and R.V. Churchill (1981). Fourier Series and Boundary Value Problems, McGraw Hill Inc.
3. P.J. Collins (2008). Differential and Integral Equations, Oxford University Press.

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Course Code: CSI 525 **Credits: 02**
Course Name: Discrete Mathematics **Name of Teacher: Dr. Rakesh Kumar**

Credits Equivalent: 02 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The purpose of this course is to acquaint the students with the basics of discrete mathematics with graph theory.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counselling, Activities and Tutorials (CAT): 25%

i. Subjective / Objective Assignment: 10 %
ii. Numerical Assignments using programming: 10 %
iii. Presentations and Class Tests: 5 %

Course Contents:

Unit I: Mathematical logic: Statements and Propositions, Laws of logic, Connectives, Tautology, The duality principle, Logical equivalence, Relations, matrix representation of relations, partial order relations, minimal and maximal elements. **(05 Hours)Unit II:** Lattices, some properties of lattices, sub-lattices, some special lattices, Boolean algebra, properties of Boolean algebra, Boolean functions and expressions, Karnaugh map, switching circuits, logic gates. **(05 Hours)**

Unit III: Graph theory: basic definitions, types of graphs, matrix representation of graphs, Euler and Hamiltonian paths, Dijkstra's algorithm. **(05 Hours)**

Unit IV: Trees: some properties of trees, rooted trees, binary trees, spanning trees, minimum spanning trees, Kruskal's algorithm, Prim's algorithm. **(05 Hours)**

Prescribed Text Books:

1. CL. Liu and DP. Mohapatra, (2012) Elements of Discrete Mathematics.4th Edition, Tata McGraw Hill Education
2. G. Shanker Rao, (2009) Discrete Mathematical structures.New Age International (p) Limited, Publishers

Suggested Additional Readings:

1. J. Matousek and J. Nesetril (2005). Invitation to Discrete Mathematics. Oxford University Press.
2. G. Edgar and PM. Michael (2003). Discrete Mathematics with Graph Theory. Prentice Hall.

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Course Code: MTH-403

Course Name: LinearAlgebra

Instructor Name: Dr.S. K. Srivastava

Credit Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must, failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - i) Assignment 15%
   - ii) Class participation 5%
   - ii) Class tests 5%

Course Contents:

Unit-I: Introduction to the Topic, Systems of linear equations, Matrices, Elementary Operations on Matrices, Row reduction and Echelon forms, Block Matrices. Vectors, Vector Spaces and Subspaces, Linear Span, Linear Independence and Dependence, Bases, Dimensionsand basic theorems on these topics **[10 Lectures]**

Unit-II: Linear Transformations, Algebra of Linear Transformations. Null Spaces, Range Spaces, Isomorphism, Representation of Linear Transformation by Matrices, Linear Functional, Duality and Double Dual. Transpose of Linear Transformation and Polynomial Ideals. **[10 Lectures]**

Unit-III: Determinants, Eigenvalues and Eigenvectors, Annihilating Polynomials, Invariant Subspaces, Simultaneous Triangulation, Simultaneous Diagonalization, Direct Sum Decomposition and Primary Decomposition Theorem.**[10 Lectures]**

Unit-IV: Cyclic Subspaces and Annihilators, Cyclic Decomposition and the Rational Canonical Form, Jordan Canonical Form, Inner Product Spaces, Unitary Operators and Normal Operators.**[10 Lectures]**

Prescribed Text Book:

- Kenneth Hoffman, Ray Alden Kunze, "Linear Algebra", Second Edition, Prentice Hall India.
- Otto Bretscher, Linear algebra with applications, Fourth Edition, Pearson.

Suggested Additional Reading:

(1)M. Artin, "Algebra", Second Edition, PHI

(**2**)G. Strang, "Linear Algebra"

(3)S. Axler, "Linear Algebra Done Right", Springer

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Course Code: IAM 407

Course Name: Differential geometry

Course Instructor: Dr S. K. Srivastava

Credits Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity /contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective: The purpose of this course is to acquaint the students with the Differential geometry which is closely related to differential topology, and to the geometric aspects of the theory of differential equations and uses the techniques of differential calculus and integral calculus, as well as linear algebra and multilinear algebra, to study problems in geometry.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counselling, Activities and Tutorials (CAT): 25%

i)	Assignment	15%
ii)	Class participation	5%
iii)	Class tests	5%

Course Contents:

Unit I: Introduction **(8 hours)**
1. Topological Spaces
2. Vector spaces
3. The n-dimensional Real Space R^n and C^n functions
4. The inverse function Theorem

Unit II: Differentiable manifolds **(12 hours)**
1. The definition and Examples of a manifold
2. Differentiable Mappings, Sard's theorem and the Motion in a Riemannian manifold
3. Immersion and Imbedding of Manifolds, Submanifolds

4. Vector fields, one-parameter Transformation Groups and Partition of Unity
5. Paracompact, Complex Manifolds and Almost Complex Structures

Unit III: Differential Forms and Tensor Fields **(8 hours)**

1. P-linear functions, symmetric and alternating tensors; Exterior product
2. Differential forms, Lie Differentiation of Tensor Fields and Exterior Differentiation of Differential Forms
3. The Cohomology Algebra of a Manifold
4. Differential Systems and Integral Manifolds

Unit IV: Lie Groups and Fibre bundles **(12 hours)**

1. Lie groups and Lie Algebras
2. Invariant Differential Forms on Lie groups
3. One parameter subgroups, the Exponential Map and Examples of Lie groups
4. Fibre bundle

Prescribed Text Books:

1. Y. Matsushima, Differentiable Manifolds, Marcel Dekker, New York.
2. S. Kobayashi &K.Nomizu: Foundations of differential geometry Vol. - I, Interscience Publishers, New York.

Suggested Additional Readings:

1. Michael Spivak: A Comprehensive Introduction to Differential geometry Vol. - I, Publish OR Perish, Inc.
2. W. M. Boothby: An Introduction to differentiable Manifolds and Riemannian geometry.

Department of Computer Science

School of Mathematics, Computers & Information Science

Name of the Department: **Department of Computer Science**

Name of the Programme of Study: **MSc (Information Technology)**

Courses for Semester III

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if	Teacher
1.	CSI531	Theory of Computation	4	NA	Keshav Singh Rawat
2.	CSI501	Design & Analysis of	2	CSI420	Keshav Singh
3.	CSI414B	LAB- C++	2	CSI407A	Manoj Dhiman
4.	CSI 410	Object oriented	2	CSI401	Manoj Dhiman
5.	CSI499	Industrial Training	4	NA	Manoj Dhiman/

Courses for Semester I

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1.	CSI403	Computer Organization	4	NA	Keshav Singh
2.	CSI528	Image Processing	2	NA	Keshav Singh Rawat
3.	CSI401	Programming	2	NA	Manoj Dhiman
4.	CSI407A	LAB- C	2	NA	Manoj Dhiman
5.	CSI406A	Fundamentals of ICT	4	NA	Guest faculty

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1.	CSI528	Image Processing	2	NA	Keshav Singh
2.	CSI401	Programming	2	NA	Manoj Dhiman
3.	CSI407A	LAB- C	2	NA	Manoj Dhiman
4.	CSI531	Theory of Computation	4	NA	Keshav Singh
5.	CSI406A	Fundamentals of ICT	4	NA	Guest faculty

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Course Code: CSI 401
Course Name: Programming Methodology and Problem Solving on C
Credit Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed to

- The main purpose of this course is to introduce students with the Problem solving Analysis, Approach and Techniques using C Programming language. C being the rich source of built in functions and constructs will help students to write simple and complex programs.
- The students will be made aware about the concept of portability of C and its platform independenability, that is the C programs written for one computer can be executed on another with little or no modification.
- C is having the ability to extend itself. Thus students can continuously add their own functions to C library.
- Further as the course will continue the students will be introduced and taught many more concepts, features and programming skills in C.

Attendance Requirement:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - i) Assignment 15%
   - ii) Class Participation 5%
   - ii) Class tests 5%

Course Contents

Unit-I:

Programming Tools- Problem analysis, Program constructs (sequential, decision, loops), Algorithm, Flowchart, Pseudo code, Decision table, Modular programming, Top Down and Bottom up approaches, Concept of High Level Languages, Low Level Languages, Assembly Languages, Assembler, Compiler, Interpreter, Type of errors.

Overview of C- General Structure of C Program, C compilers, Editing, Compiling & , Running of a C program Data types, Constants and Variables, Operators and expressions, Storage Classes, Different types of expressions and their Evaluation, Conditional Expression, Assignment statement, Enumerated data type, Redefining/ Creating data types, Library functions, Type casting.

Unit II:

Input/Output- Unformatted and formatted I/O Functions**.**

Control Statements- Decision making using if, if-else, elseif and switch statements, Looping using for, while and do-while statements, Transferring Program controlling break and continue statements, Programming examples to illustrate the use of these control statements.

Functions- Defining a function, Local variables, return statement, invoking a Function, specifying and passing arguments to a function, Functions returning non Integer, External, static, and register variable, block structure, initialization and recursion.

Unit-III:

Array & strings- Introduction to arrays, Declaring arrays, Initializing, arrays, Processing arrays, Pointers to arrays, Passing arrays as arguments to functions, Introduction to strings, Pointers to strings, Passing strings and Arrays of strings as arguments to a function, Programming examples to illustrate the use of arrays and strings.

Pointers- Definition, Need of pointers, declaring Pointers, Accessing Values via Pointers, Pointer arithmetic, Types of pointers, Programming examples to illustrate the use of pointers.

Unit IV:

Structures- Declaring a structure type, Declaring Variables of structure type, Initializing Structures, Accessing Elements of structures, arrays of structures, nested structures, Pointers to structures Programming examples to illustrate the use of Structures.

Data files- Definition of data files, different ways of file processing (standard I/O and system I/O), description of various library functions for file handling, updating files, Programming examples to illustrate the use of Data Files.

Prescribed Text Books:

1. E. Balagurusamy, "Programming in ANSI C", Tata McGraw Hill.
2. R S Salaria, Application in C, Khanna book publishing.
3. Anita Goel, Computer fundamentals, Pearson.

Suggested Additional Reading:

1. Yashwant Kanetakar, "Let us C" BPB.
2. Kerninghan B.W. & Ritchie D.M. "The C Programming Language" Prentice-Hall.
3. Mullish Cooper, "The Spirit of C" Jaico Publishing House.
4. Byron Gottfried, "Programming with C", Schaum's Outlines, Tata McGraw Hill.
5. Herbert Schildt, C: The complete reference, Tata mcCgraw hill

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Course Code:CSI403
Course Name: Computer Organization and Architecture
Credit Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed to

- To have a thorough understanding of the basic structure and operation of a digital computer.
- To have a knowledge about the instruction codes, registers and about central processing unit of a computer.
- To study the input output organization and memory organization of a computer.

Attendance Requirement:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - i) Assignment 15%
   - ii) Class participation 5%
   - ii) Class tests 5%

Course Contents:

Unit-I:
Register Transfer and Micro operations - Register transfer language, Register transfer, Bus and Memory transfer, Arithmetic Micro operations (Binary Adder, Binary Adder-Subtractor, Binary Incrementer), Logic Micro operations, Shift Micro operations, Arithmetic Logic Shift Unit.

Unit-II:

Computer Organization and Design – Instruction Codes, Computer Register, Computer Instructions (Instruction Set Completeness), Timing and Control, Instruction Cycle (Fetch and Decode, Type of Instruction, Register Reference Instructions), Memory Reference Instructions.

Unit-III:

Central Processing Unit – Introduction, General Register Organization, Stack Organization (Register Stack, Memory Stack, Reverse Polish Notation, Evaluation of Arithmetic Expressions), Instruction Formats (Three Address Instructions, Two Address Instructions, One Address Instructions, Zero Address Instructions) , Addressing Modes, Data Transfer and Manipulation (Data Transfer Instructions, Data Manipulation Instructions, Program Control Instructions) , Program Control.

Unit-IV:

Input-Output Organization – Peripheral Devices, Input-Output Interface (I/O Bus and Interface Modules, I/O versus Memory Bus, Isolated versus Memory Mapped I/O), Asynchronous Data Transfer (Strobe Control, Handshaking), Modes of Transfer (Programmed I/O, Interrupt initiated I/O, Software Considerations), Priority Interrupt, Direct Memory Access (DMA Controller, DMA Transfer), Input-Output Processor.

Unit-V:

Memory Organization – Memory Hierarchy, Main Memory (RAM and ROM chips), Auxiliary Memory (Magnetic Disks, Magnetic Tape), Associative Memory, Cache Memory, Virtual Memory, Memory Management Hardware.

Prescribed Text Book:

1. M.Morris Mano, "Computer System Architecture" 3rd Edition, PHI.

Suggested Additional Reading:

1. V.Rajaraman, T.Radhakrishanan, "Digital Logic and Computer Organization", PHI.
2. John P. Hayes, "Computer Architecture and Organization", McGraw Hill.
3. William Stallings, "Computer Organization and Architecture", PHI.

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Course Code: CSI 406 A

Course Name: Fundamentals of ICT

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Knowledge of Basic Computing Concepts.
- Identifying the functions of Input & Output Devices.
- To understand the concept of Computer Software.
- In general, develop an intuitive sense of how computers work and how they can be used to make your work more efficient.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment : 25%
  - i Assignment: 15%
  - ii Surprise Test: 10%

Course Content:

UNIT - I:

Introduction: Computer, Data Processing, Computer System Characteristics, Evolution of Computers, Capabilities and Limitations, Generations of computers, Block diagram of computer, Basic components of a computer system- Input unit, Output unit, Storage unit, ALU, Control unit, Central Processing unit; Number Systems- Non-positional number system, Positional number system, Decimal Number system, Binary number system, Octal number system, Hexadecimal number system.

UNIT - II:

Memory: Main memory organization, Main memory capacity, RAM, ROM, PROM, EPROM, Cache Memory, Secondary storage devices: Sequential access devices- Magnetic tape; Direct access devices- Magnetic disks, Floppy disks, Optical disks, Types of Optical disks: CD-ROM, CD-R, CD-RW, DVD.

UNIT - III:

Input devices: Keyboard, Pointing Devices-Mouse, Touch screens, Joystick, Electronic pen, Trackball, Scanning devices: Optical Scanners, OCR, OMR, Bar code reader, MICR, Electronic card reader, Image capturing devices, Digital cameras.

Output devices: Monitors- CRT, LCD, Printers-Dot matrix, Inkjet, Laser; Plotters, Screen image projector.

UNIT - IV:

Introduction: Software, Relationship between Hardware and Software, Types of Software-System Software, Application Software; System Software-Operating System, Utility Program; Programming Languages-Machine, Assembly, High Level; Assembler, Compiler, Interpreter.

UNIT - V:

Data Communication & Computer Networks, Basic elements of a communication system, Data Transmission modes-Simplex, Half duplex, Full duplex; Data Transmission speed-Narrowband, Voice band, Broadband; Data Transmission media-Twisted Pair Wire, Coaxial cable, Optical fibers; Modems, Types of Network-LAN, WAN, MAN; Internet, World Wide Web, Web Browsers.

Prescribed Text Book:

1. Pradeep K. Sinha, Priti Sinha, "Computer Fundamentals", BPB Publications.

Suggested Additional Reading:

1. Rajaraman, V., "Fundamental of Computers", Fifth Edition, Prentice Hall India, New Delhi.
2. E. Balagurusamy, "Introduction to Computers (Special Indian Edition)", Tata McGraw Hill.

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[ESTABLISHED UNDER THE CENTRAL UNIVERSITIES ACT 2009]
PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code:CSI407A
Course Name: LAB- C
Credit Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed to

- The main purpose of this course is to introduce students with the Problem solving Analysis, Approach and Techniques using C Programming language. C being the rich source of built in functions and constructs will help students to write simple and complex programs.
- The students will be made aware about the concept of portability of C that is the C programs written for one computer can be executed on another with little or no modification.
- C is having the ability to extend itself. Thus students can continuously add their own functions to C library.
- Further as the course will continue the students will be introduced and taught many more concepts, features and programming skills in C.

Attendance Requirement:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - Lab Assignment 15%
   - Class Participation 5%
   - Class tests 5%

Course Contents:

Unit-I: **5 Hrs**

algorithm, flowcharts, Pseudo code and Decision table.

General Structure of C Program, C compilers, Editing, Compiling & , Running of a C program Data types, Constants and Variables, Operators and expressions, Storage Classes, Different types of expressions and their Evaluation, Conditional Expression, Assignment statement, Enumerated data type, Redefining/ Creating data types, Library functions, Type casting.

Unit II: **5 Hrs**

Input/Output- Unformatted and formatted I/O Functions**.**

Control Statements- Decision making using if, if-else, elseif and switch statements, Looping using for, while and do-while statements, Transferring Program controlling break and continue statements

Functions- Defining a function, Local variables, return statement, invoking a Function, specifying and passing arguments to a function, Functions returning non Integer, External, static, and register variable, block structure, initialization and recursion.

Unit-III: **5Hrs**

Array & strings- Introduction to arrays, Declaring arrays, Initializing, arrays, Processing arrays, Pointers to arrays, Passing arrays as arguments to functions, Introduction to strings, Pointers to strings, Passing strings and Arrays of strings as arguments to a function, Programming examples to illustrate the use of arrays and strings.

Pointers- Definition, Need of pointers, declaring Pointers, Accessing Values via Pointers, Pointer arithmetic, Types of pointers, Programming examples to illustrate the use of pointers.

Unit IV: **5Hrs**

Structures- Declaring a structure type, Declaring Variables of structure type, Initializing Structures, Accessing Elements of structures, arrays of structures, nested structures, Pointers to structures Programming examples to illustrate the use of Structures.

Data files- Definition of data files, different ways of file processing (standard I/O and system I/O), description of various library functions for file handling, updating files, Programming examples to illustrate the use of Data Files.

Prescribed Text Books:

1. E. Balagurusamy, "Programming in ANSI C", Tata McGraw Hill.
2. R S Salaria, Application in C, Khanna book publishing.
3. Anita Goel, Computer fundamentals, Pearson.

Suggested Additional Reading:

1. Yashwant Kanetakar, "Let us C" BPB.
2. Kerninghan B.W. & Ritchie D.M. "The C Programming Language" Prentice-Hall.
3. Mullish Cooper, "The Spirit of C" Jaico Publishing House.
4. Byron Gottfried, "Programming with C", Schaum's Outlines, Tata McGraw Hill.
5. Herbert Schildt, C: The complete reference, Tata mcCgraw hill

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: **CSI-410**

Course Name: Object Oriented Programming Using C++

Credit Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed to

- This module will acquaint the student with the fundamental concepts of software construction in an object-oriented framework and develop basic competence in applying those concepts.
- It will introduce inheritance and software structuring concepts that provide the object-oriented approach to software development with much of its power.
- Students' programming capability will be enhanced through substantial practical work and increased knowledge of software development methodology.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%

i)	Assignment	10%
ii)	Class Participation	5%
iii)	Class Tests	10%
iv)		

Course Contents

Unit-1 **[4 hours]**

Basic concepts of Object Oriented programming - Object, Classes, Inheritance, Encapsulation, Polymorphism and Overloading. C++ Programming Basics-program construction, input/outputs, preprocessor directives, comments, declaration and definitions of variables, manipulators, tokens, expressions, control structures.

Arrays - defining, accessing elements, initialization.

Structures - basic concepts and usage, defining of structure variable, accessing structure members, other features of structure.

Functions- declaration, calling and definition, passing arguments- call by value/reference. Returning values from function.

Managing console input output operations.

Unit-2 **[4 hours]**

Objects and Classes- specifying class, creating objects, accessing class members, defining member function, static data members, static member functions, arrays of objects, object as function arguments, friend functions, returning objects, function overloading.

Constructer and destructor.

Unit-3 **[4hours]**

Operator Overloading- Overloading unary operator, binary operator, data conversion-between basic types, between objects and basic data types, objects and different classes.

Inheritance-Concept of derived and base class, accessing base class members, Single inheritance, multiple inheritance, hierarchical inheritance, multilevel inheritance, hybrid inheritance, constructor in derived classes

Unit-4 **[4 hours]**

Pointers- pointer variables, accessing variables, Pointers and arrays, Pointers and functions, pointers to object, this pointer.

Virtual Functions-Functions accessed with pointers, virtual member functions accessing with pointers, late binding, pure virtual functions, abstract classes, virtual base classes.

Unit-5 **[4 hours]**

Exception handling.

Working with files- classes for file stream operations, opening and closing a file, detecting end-of-file, file modes, file pointers and their manipulations, sequential input and output operations, updating a file, error handling, command line arguments.

Prescribed Text Books:

1. Balabugusamy, E. “Object Oriented Programming with C++”, Second Edition. Tata McGraw Hill.
2. Lafore, Robert, “Object Oriented Programming in Turbo C++”, Galgotia Publications Pvt. Ltd. .

Suggested Additional Reading

1. Herbert Schildt, “ C++ The Complete Reference ” - TMH Publication ISBN 0-07-463880-7
2. R. Subburaj, “ Object Oriented Programming With C++ ”, Vikas Publishing House, New Delhi.isbn 81-259-1450-1
3. M Kumar “ Programming In C++”, TMH Publications
4. Ashok . N. Kamthane, “ Object Oriented Programming with ANSI & Turbo C++”, Pearson Education Publication, ISBN 81-7808-772-3

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: **CSI-414 B**

Course Name: LAB-C++

Credit Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed to

- This module will acquaint the student with the fundamental concepts of software construction in an object-oriented framework and develop basic competence in applying those concepts.
- It will introduce inheritance and software structuring concepts that provide the object-oriented approach to software development with much of its power.
- Students' programming capability will be enhanced through substantial practical work and increased knowledge of software development methodology.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - i) Assignment 20%
   - ii) Class Participation 5%

Course Contents

Unit-1 **[4 hours]**

Programming examples on basic concepts of Object Oriented programming - Object, Classes, Inheritance, Encapsulation, Polymorphism and Overloading. C++ Programming Basics-program construction, input/outputs, preprocessor directives, comments, declaration and definitions of variables, manipulators, tokens, expressions, control structures.

Programming examples on arrays - defining, accessing elements, initialization.

Programming examples on Structures - basic concepts and usage, defining of structure variable, accessing structure members, other features of structure.

Programming examples on Functions- declaration, calling and definition, passing arguments- call by value/reference. Returning values from function.

Programming examples on Managing console input output operations.

Unit-2 **[4 hours]**

Programming examples on Objects and Classes- specifying class, creating objects, accessing class members, defining member function, static data members, static member functions, arrays of objects, object as function arguments, friend functions, returning objects, function overloading.

Programming examples on Constructer and destructor.

Unit-3 **[4hours]**

Programming examples on Operator Overloading- Overloading unary operator, binary operator, data conversion-between basic types, between objects and basic data types, objects and different classes.

Programming examples on Inheritance-Concept of derived and base class, accessing base class members, Single inheritance, multiple inheritance, hierarchical inheritance, multilevel inheritance, hybrid inheritance, constructor in derived classes

Unit-4 **[4 hours]**

Programming examples on Pointers- pointer variables, accessing variables, Pointers and arrays, Pointers and functions, pointers to object, this pointer.

Programming examples on Virtual Functions-Functions accessed with pointers, virtual member functions accessing with pointers, late binding, pure virtual functions, abstract classes, virtual base classes.

Unit-5 **[4 hours]**

Programming examples on Exception handling.

Programming examples on Working with files- classes for file stream operations, opening and closing a file, detecting end-of-file, file modes, file pointers and their manipulations, sequential input and output operations, updating a file, error handling, command line arguments.

Prescribed Text Books:

1. Balabugusamy, E. "Object Oriented Programming with C++", Second Edition. Tata McGraw Hill.
2. Lafore, Robert, "Object Oriented Programming in Turbo C++", Galgotia Publications Pvt. Ltd. .

Suggested Additional Reading

1. Herbert Schildt, " C++ The Complete Reference " - TMH Publication ISBN 0-07-463880-7
2. R. Subburaj, " Object Oriented Programming With C++ ", Vikas Publishing House, New Delhi.isbn 81-259-1450-1
3. M Kumar " Programming In C++", TMH Publications
4. Ashok . N. Kamthane, " Object Oriented Programming with ANSI & Turbo C++", Pearson Education Publication, ISBN 81-7808-772-3

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CSI501
Course Name: Design & Analysis of Algorithms
Credit Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed
• To be able to carry out the Analysis of various Algorithms for mainly Time and Space Complexity.
• develop efficient algorithms for simple computational tasks and reasoning about the correctness of them. Through the complexity measures, different range of behaviours of algorithms and the notion of tractable and intractable problems will be understood

Attendance Requirement:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%

i)	Assignments	5%
ii)	Class participation	5%
iii)	Class tests	10%
iv)	Quiz	5%

Course Contents:

Unit I **(4 Hours)**

Algorithms, Designing algorithms, analyzing algorithms, asymptotic notations, Introduction to divide and conquer technique, analysis, design and comparison of various algorithms based on this technique, example binary search, merge sort, quick sort, strassen's matrix multiplication.

Unit II **(4 Hours)**

Study of Greedy strategy, examples of greedy method like optimal merge patterns, Huffman coding, minimum spanning trees, knapsack problem, job sequencing with deadlines, single source shortest path algorithm

Unit III **(4 Hours)**

Concept of dynamic programming, problems based on this approach such as 0/1 knapsack, multistage graph, reliability design, Floyd-Warshall algorithm.

Unit IV **(4 Hours)**

Backtracking concept and its examples like 8 queen's problem, Hamiltonian cycle, Graph coloring problem etc. Introduction to branch & bound method, examples of branch and bound method like travelling salesman problem etc. Meaning of lower bound theory and its use in solving algebraic problem.

Unit V **(4 Hours)**

Binary search trees, height balanced trees, 2-3 trees, B-trees, basic search and traversal techniques for trees and graphs (In order, preorder, postorder, DFS, BFS), NP-completeness.

Prescribed Text Book:

1. Ellis Horowitz, Sartaj Sahni and Sanguthevar Rajasekaran, —Computer Algorithms/C++||, 2nd Edition, Universities Press, 2007.

Suggested Additional Reading:

1. Cormen, T.H., Leiserson, C.E., Rivest, R.L. and Stein, C., —Introduction to Algorithms||, 2nd Edition, Prentice Hall of India Pvt. Ltd, 2003.
2. Aho, A.V., Hopcroft J.E. and Ullman, J.D., —The Design and Analysis of Computer Algorithms||, Pearson Education, 1999.
3. Sara Baase and Allen Van Gelder, —Computer Algorithms, Introduction to Design and Analysis||, 3rd Edition, Pearson Education, 2009.
4 . Dasgupta; algorithms; TMH
5. Michael T Goodrich, Robarto Tamassia, Algorithm Design, Wiely India

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[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: CSI528
Course Name: Image Processing
Credit Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed to cover the underlying concepts and techniques used in Theory of Computation. In this syllabus we cover finite automata, pushdown automata, Context free grammars and Turing machines.

Attendance Requirement:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - i) Assignment 10%
   - ii) Class participation 5%
   - iii) Class test 10%

Course Contents:

Unit-I: **(08 Hours)**

Digital Image Processing (DIP) Introduction, examples of fields that use DIP, fundamental steps in DIP, components of an image processing system. Digital Image Fundamentals: elements of visual perception, image sensing and acquisition, image sampling and quantization, basic relationships_between_pixels.

Unit-II: **(08 Hours)**

Image Transforms Two-dimensional (2D) impulse and its shifting properties, 2D continuous Fourier Transform pair, 2D sampling and sampling theorem, 2D Discrete Fourier Transform (DFT), properties of 2D DFT. Other transforms and their properties: Cosine transform, Sine transform, Walsh transform, Hadamard transform, Haar transform, Slant transform, KL transform.

Unit-III: **(08 Hours)**

Image Enhancement Spatial domain methods: basic intensity transformation functions, fundamentals of spatial filtering, smoothing spatial filters (linear and non-linear), sharpening spatial filters (unsharp masking and high boost filters), combined spatial enhancement method. Frequency domain methods: basics of filtering in frequency domain, image smoothing filters (Butterworth and Gaussian low pass filters), image sharpening filters (Butterworth and Gaussian high pass filters), selective filtering.

Unit-IV: **(09 Hours)**

Color Image Processing: Color Fundamentals, Color Models, The RGB Color Model,The CMY and CMYK Color Models, The HSI Color Model, Gray Level to Color Basics of Full-Color Image Processing , Segmentation in RGB Vector Space, Color Image Compression . Image Restoration Image degradation/restoration, noise models, restoration by spatial filtering, noise reduction by frequency domain filtering.

Unit-V: **(07 Hours)**

Image Compression Fundamentals of data compression: basic compression methods: Huffman coding, Golomb coding, LZW coding, Run-Length coding, Symbol based coding. Digital image watermarking, representation and description- minimum perimeter polygons algorithm (MPP).

Prescribed Text Book:

1. R. C. Gonzalez and R. E. Woods," **Digital Image Processing**" , Pearson.
2. A. K. Jain , "F**undamentals of Digital Image Processing**", Prentice Hall

Suggested Additional Reading:

- Rafeal C. Gonzalez , Richards E Woods, Steven L. Eddins, "**Digital Image Processing using MATLAB**", Pearson.
- Alasdair McAndrew," **Introduction to Digital Image Processing with MATLAB**", Thomson Course Technology.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: CSI531
Course Name: Theory of Computation
Credit Equivalent: 04 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual / group work; obligatory / optional work placement; literature survey / library work; data collection / field work; writing of papers / projects / dissertation / thesis; seminars, etc.)

Course Objectives: The course is designed to cover the underlying concepts and techniques used in Theory of Computation. In this syllabus we cover finite automata, pushdown automata, Context free grammars and Turing machines.

Attendance Requirement:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%
   - i) Assignment 10%
   - ii) Class participation 5%
   - iii) Class test 10%

Course Contents:

Unit-I: **(08 Hours)**

Alphabet, Strings and their properties, Definition of an automation, Description of a finite Automation, Transition graph, transition function, Acceptability of a string by a Finite Automation, Deterministic and nondeterministic FSM'S, Equivalence of DFA and NDFA, Mealy & Moore machines, Minimization of finite automata.

Unit-II: **(08 Hours)**

Chomsky classification of Languages, Languages and their relation, Languages and Automata, Regular sets, regular expression, Regular Grammars, Finite state machine and regular expression, Pumping lemma for regular sets, Application of pumping lemma, closure properties of regular sets.

Unit-III: **(08 Hours)**

Introduction to CFG, Context-free languages and Derivation Trees, Ambiguity in context-free Grammars, simplification of context-free Grammars, Normal forms for context-free Grammars – Chomsky normal form and Greiback normal form.

Unit-IV: **(09 Hours)**

Pushdown Automata: Definitions – Moves – Instantaneous descriptions – Deterministic pushdown automata – Pushdown automata and CFL, PDA corresponding to given CFG, CFG corresponding to a given PDA, pumping Lemma for context-free Languages, Closure properties of CFL's.

Unit-V: **(07 Hours)**

Introduction, TM model Representation of Turing machines, languages acceptability of TM, Design of TM, Universal TM & Other modification, Church's hypothesis, Properties of recursive and Recursively enumerable languages.

Tractable and Untractable Problems: P, NP, NP complete and NP hard problems

Prescribed Text Book:

1. John E. Hopcroft, Jeffery Ullman,"Introduction to Automata theory, Langauges & computation" , Narosa Publishers.
2. K.L.P Mishra & N.Chandrasekaran,"Theory of Computer Science", PHI Learning

Suggested Additional Reading:

- John C Martin, "Introdution to languages and theory of computation", McGraw Hill
- Daniel I.A. Cohen,"Introduction to Computer Theory",Wiley India.

Peter Linz, "An Introduction to Formal Languages and Automata", Jones & Bartlett Learning

Department of Library Science

School of Mathematics, Computers & Information Science

Name of the Department: **Department of Library Science**

Name of the Programme of Study: **M Lib Sc (Integrated Dual Degree Programme)**

Courses for Semester I

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1.	LIS 410	Fundament of ICT	4	NA	Nimmala Karunakar
2.	LIS 401	Information Literacy	2	NA	Prof.I.V.Malhan
3.	LIS 411	Management of Libraries and Information Centers	2	NA	Nimmala Karunakar
4.	LIS 405	Knowledge Organization and Information Processing (Theory):Cataloguing	2	NA	Dr. Dimple Patel
5.	LIS 407	Knowledge Organization and Information Processing (Theory): Classification	2	NA	Dr. Dimple Patel

Courses for Semester III

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1.	LIS 402	Web designing and hosting(Lab)	2	NA	Prof.I.V.Malhan
2.	LIS 501	Library Automation and Networks	2	NA	Nimmala Karunakar
3.	LIS 502	Library Automation and Networks(	2	NA	Nimmala Karunakar

		Practical)			
4.	LIS 416	Information Storage and Retrieval	2	NA	Dr. Dimple Patel
5.	LIS 510	IPRS in Digital Era	2	NA	Dr. Dimple Patel
6.	LIS 503	Digital Library	2	NA	Dr. Dimple Patel
7.	LIS 507	Community Lab for Library and information Science	4	NA	Prof.I.V.Malhan

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1.	LIS 410	Fundament of ICT	4	NA	Nimmala Karunakar

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: LIS 410

Course Name: Fundamentals of Computer, Computing and ICT

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Knowledge of Basic Computing Concepts.
- Identifying the functions of Input & Output Devices.
- To understand the concept of Computer Software.
- In general, develop an intuitive sense of how computers work and how they can be used to make your work more efficient.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment : 25%
   - i Assignment: 10%
   - ii Class participation 5%
   - iii Surprise Test: 5%
   - iv Seminars 5%

Course Content:

UNIT - I:

Introduction: Computer,Data Processing, Computer System Characteristics, Evolution of Computers, Capabilities and Limitations, Generations of computers, Block diagram of computer, Basic components of a computer system- Input unit, Output unit, Storage unit, ALU, Control unit, Central Processing unit; Number Systems- Non-positional number system, Positional number system, Decimal Number system, Binary number system, Octal number system, Hexadecimal number system.

UNIT - II:

Memory: Main memory organization, Main memory capacity, RAM, ROM, PROM, EPROM, Cache Memory, Secondary storage devices: Sequential access devices- Magnetic tape; Direct access devices- Magnetic disks, Floppy disks, Optical disks, Types of Optical disks: CD-ROM, CD-R, CD-RW, DVD.

UNIT - III:

Input devices: Keyboard, Pointing Devices-Mouse, Touch screens, Joystick, Electronic pen, Trackball, Scanning devices: Optical Scanners, OCR, OMR, Bar code reader, MICR, Electronic card reader, Image capturing devices, Digital cameras.

Output devices: Monitors- CRT, LCD, Printers-Dot matrix, Inkjet, Laser; Plotters, Screen image projector.

UNIT - IV:

Introduction: Software, Relationship between Hardware and Software, Types of Software-System Software, Application Software; System Software-Operating System, Utility Program; Programming Languages-Machine, Assembly, High Level; Assembler, Compiler, Interpreter.

UNIT - V:

Data Communication & Computer Networks, Basic elements of a communication system, Data Transmission modes-Simplex, Half duplex, Full duplex; Data Transmission speed-Narrowband, Voice band, Broadband; Data Transmission media-Twisted Pair Wire, Coaxial cable, Optical fibers; Modems, Types of Network-LAN, WAN, MAN; Internet, World Wide Web, Web Browsers.

Prescribed Text Book:

1. Pradeep K. Sinha, Priti Sinha, "Computer Fundamentals", BPB Publications.

Suggested Additional Reading:

1. Rajaraman, V., "Fundamental of Computers", Fifth Edition, Prentice Hall India, New Delhi.
2. E. Balagurusamy, "Introduction to Computers (Special Indian Edition)", Tata McGraw Hill.

Knowledge Organization and Information Processing (Theory): Cataloguing

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code : LIS-405

Course Name: Knowledge Organization and Information Processing (Theory): Cataloguing

Faculty: Dr. Dimple Patel

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
To acquaint students with the theoretical aspects of:

- Library catalogues: Types, Timeline
- Principles of library cataloguing
- Conceptual foundation of subject cataloguing and tools
- International Bibliographic description standards
- Metadata Standards

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
    4. Assignment/Library Work/Class Test/Surprise Test/Quiz: 15%
    5. Class Attendance: 10%

Course Contents

Unit-I: Introduction to Cataloguing (3 Hours)

Library catalogue: need, purpose and functions

Physical forms of catalogue; Inner forms of catalogue

Timeline of library cataloguing

Centralized, Pre-publication and Cooperative cataloguing

Unit-II: Canons, Normative principles; Types of Catalogue Entries (5 Hours)

Library Cataloguing – Canons and Normative principles.

Main Entry according to AACR2R

Added Entries according to AACR2R

Filing of catalogue entries

Unit-III: Subject cataloguing (3 Hours)

Concept, need, purpose and principles of subject cataloguing
General theory of subject indexing language (SIL)
Subject heading lists – Concept, need and purpose, examples

Unit-IV: Bibliographic Description standards (5 Hours)

ISBD, AACR2
FRBR, RDA
MARC-21, ISO2709
Z39.50

Unit-V: Metadata Standards (4 Hours)

Metadata: Concept, need and purpose, types, DCMES
RDF/XML
Open Bibliographic Data
Library Linked Data

Prescribed Texts

1. Krishan Kumar. Theory of Library Cataloguing, ED.2, New Delhi, Vikas, 1980
2. Kumar, P.S.G. Knowledge Organization, Information Processing and Retrieval Theory, Delhi: BR, 2003.
3. Bowman, J. H. Essential Cataloguing. London : Facet, 2003
4. Miller, Joseph and McCarthy, Susan, Eds. Sears List of Subject Headings, 20th Ed. New York, HW Wilson, 2010.
5. Anglo American Cataloguing Rules. 2nd Edition Rev. New Delhi, Oxford, 1988
6. Understanding MARC. http://www.loc.gov/marc/umb/ (Web)
7. Expressing Dublin Core metadata using the Resource Description Framework (RDF) http://www.dublincore.org/documents/dc-rdf/
8. Foster, Allen and Rafferty, Pauline. Innovations in information retrieval: perspectives for theory and practice. Facet publishing, 2011.

Prescribed Journal Articles (Web)

1. The Description of Internet Resources: A Consideration of the Relationship Between MARC and Other Metadata Schemes
   http://www.tandfonline.com/doi/pdf/10.1300/J124v18n03_01
2. Using XSLT to manipulate MARC metadata

http://www.emeraldinsight.com/journals.htm?issn=0737-8831&volume=22&issue=2&articleid=861412&show=html

3. Concept naming vs concept categorisation: a faceted approach to semantic annotation

http://www.emeraldinsight.com/journals.htm?issn=1468-4527&volume=32&issue=4&articleid=1740714&show=html

4. Linked Data for libraries: Benefits of a conceptual shift from library-specific record structures to RDF-based data models

http://www.emeraldinsight.com/journals.htm?issn=0307-4803&volume=113&issue=11/12&articleid=17065275&show=html

5. datos.bne.es and MARiMbA: an insight into library linked data

http://www.emeraldinsight.com/journals.htm?issn=0737-8831&volume=31&issue=4&articleid=17099946&show=html

Additional Readings

1. Byrne, Deborah J. MARC manual: Understanding and Using MARC Record. Englewood, Libraries Unlimited, 1998.
2. Fritz, Deborah A. cataloguing with AACR2 and US-MARC Records. Chicago, ACA, 1998.

Knowledge Organization and Information Processing (Theory): Classification

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: LIS-407

Course Name: Knowledge Organization and Information Processing (Theory): Classification

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

To acquaint students with the theoretical foundations of library classification

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counseling, Activities and Tutorials (CAT): 25%
   - I. Assignment: 10%
   - II. Library Work: 5%
   - III. Seminar: 5 %
   - IV. Surprise Test: 5%

Course Content:

UNIT - I: Universe of knowledge and library classification (5 Hours)

- Universe of knowledge; structure and attributes
- Modes of formation of subjects, different types of subjects-basic, compound and complex
- Need and purpose of library classification
- Notation – need, types and qualities

UNIT - II: Theoretical Foundations of Classification (5 Hours)

- Canons of Classification
- Phase Relation, Common Isolates
- Principles of helpful sequence
- Devices, indicator digits

UNIT - III: Facet Analysis and Fundamental Categories (4 Hours)

- Fundamental categories
- Concept of facet analysis
- Principles for facet sequence
- Call No., Class No., Book No., Collection No.

UNIT - IV: Classification Schemes (3 Hours)

- Species of library classification schemes: Enumerative and faceted models
- Salient features of Dewey Decimal Classification
- Salient features of Universal Decimal Classification
- Salient features of Colon Classification

UNIT - V: Trends in classification (3 Hours)

- Latest Trends in classification
- Thesaurofacet, Classaurus, Automatic classification
- Contribution of Research group
- Classification of hypermedia

Prescribed Text Books:

1. Berwick Sayers, W.C. Introduction to Library Classification. London, Andra dautch, 1950.
2. Gilchrist A: From classificiation to knowledge organisation. 1997.
3. Ranganathan, S.R. Prolegomena to Library Classification, Ed2, London, LA, 1957 & 1965.
4. Sinha, Suresh C and Dhiman, Anil K. Prolegomena to Universe of Knowledge. New Delhi: Ess Ess, 2002.

Suggested Extra Readings:

1. British Standards Institutions: Universal decimal classification. 2006.
2. Dhyani, Pushpa. Library Classification: Theory and Practice. New Delhi: Vishwa Prakashan, 1998.
3. Maltby.A. Sayers Manual of classification for Librarian, Ed.5.London: Andre Deutsch.1975.
4. Mills, J. Modern outline of Library Classification, Bombay, Asia, 1962.

Knowledge Organization and Information Processing (Theory): Classification

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: LIS-407

Course Name: Knowledge Organization and Information Processing (Theory): Classification

Faculty: Dr. Dimple Patel

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

To acquaint students with:

- Theory, need and importance of library classification
- Classification schemes used in libraries
- Conceptual foundation of library classification
- Current trends in library classification

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
    6. Assignment/Library Work/Class Test/Surprise Test/Quiz: 15%
    7. Class Attendance: 10%

Course Contents

UNIT - I: Theoretical Foundation of Library Classification (5 Hours)

Library classification: concept, need and purpose; Call Number – purpose and function. Terminology – need and importance; Important terminology in library classification.

Normative principles, Five laws of library science – Implications on library classification.

UNIT - II: Development of subjects & Species of Classification Schemes (3 Hours)

Formation, structure and development of subjects.

Enumerative Classification – Types; Faceted Classification – Types.

Brief study of major schemes viz: Decimal Classification (DC); Universal Decimal Classification (UDC); Colon Classification (CC).

UNIT - III: PMEST, Phase Analysis, Isolates and Devices (5 Hours)

Fundamental categories: PMEST; Facet analysis; Principles for facet sequence.

Phase Analysis – Phase, Intra-facet & Intra-array relations.

Isolate: Common Isolates – in DDC and UDC

Devices in library classification

UNIT - IV: Notation, Canons and Helpful Sequence (5 Hours)

Notation – need, types and qualities

Canons of Classification.

Principles of helpful sequence.

UNIT - V: Trends in classification

(2 Hours)

Thesaurofacet, Classaurus, Automatic classification

Library classification and ontologies

Library classification and Linked Data

Prescribed Texts

1. Ranganathan, S.R. Prolegomena to Library Classification, Ed2, London, LA, 1957 & 1965.
2. Ranganathan, SR. Elements of Library Classification. Ed. 2. Bombay : UBS, 1966.
3. Chan, Lois Mai. Cataloguing and Classification. 2nd ed. New York : McGraw Hill, 1995.
4. Berwick Sayers, W.C. Introduction to Library Classification. London, Andra dautch, 1950.
5. Gilchrist A: From classificiation to knowledge organisation. 1997.
6. British Standards Institutions: Universal decimal classification. Latest edition.
7. OCLC: Dewey decimal classification. Latest Edition.

Prescribed Journal Articles

1. Soergel, Dagobert. The rise of ontologies or the reinvention of classification. Journal of the American Society for Information Science , 50(12), pp.1119-1120 1999. Available at: www.clis.umd.edu/faculty/soergel/
2. Kim, Jeong-Hyen and Lee, Kyung-Ho. Designing a knowledge base for automatic book classification.
3. http://www.emeraldinsight.com/journals.htm?issn=0264-0473&volume=20&issue=6&articleid=1455732&show=html
4. Pu, Hsiao-Tieh and Yang, Chyan. Enriching user-oriented class associations for library classification schemes
5. http://www.emeraldinsight.com/journals.htm?issn=0264-0473&volume=21&issue=2&articleid=861995&show=html
6. Hjørland, Birger. Is classification necessary after Google?
7. http://www.emeraldinsight.com/journals.htm?issn=0022-0418&volume=68&issue=3&articleid=17030673&show=html
8. Faceted classification in web information architecture: A framework for using semantic web tools.
9. http://www.emeraldinsight.com/journals.htm?issn=0264-0473&volume=25&issue=2&articleid=1602545&show=html

Additional Readings

1. Maltby.A. Sayers Manual of classification for Librarian, Ed.5.London: Andre Deutsch.1975.
2. Mills, J. Modern outline of Library Classification, Bombay, Asia, 1962.
3. Dhyani, Pushpa. Library Classification: Theory and Practice. New Delhi: Vishwa Prakashan, 1998.
4. Sinha, Suresh C and Dhiman, Anil K. Prolegomena to Universe of Knowledge. New Delhi: Ess Ess, 2002.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: LIS-416

Course Name: Information Storage and Retrieval

Faculty: Dr. Dimple Patel

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

To acquaint students with:

- Information Retrieval Systems (IRS)
- Search strategies and techniques
- Information retrieval models, languages and techniques
- Multilingual and Multimedia IRS
- Evaluation of IRS

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
    - Assignment/Library Work/Class Test/Surprise Test/Quiz/Seminar: 15%
    - Class Attendance: 10%

Course Contents

UNIT - I: Information Retrieval Systems (3 Hours)

Information Retrieval System: Purpose, Functions and Components.

Information Retrieval tools.

Search Process, Search strategies, Searching Techniques.

UNIT - II: Information Retrieval Models (3 Hours)

Structural model

Probabilistic model

Cognitive model

Vector model

UNIT - III: Indexing languages (4 Hours)

Subject Indexing: Definition, need, purpose, concept, principles.
Controlled vocabulary; Thesaurus: Structure and functions
Subject Headings –LCSH, SLSH and MeSH.

UNIT - IV: Indexing Techniques (5 Hours)

Pre-coordinate indexing: Chain Indexing, PRECIS, POPSI;
Post-coordinate indexing: Uniterm indexing
Derived Indexing : KWIC and KWOC
Citation indexing
Web indexing

UNIT - V: MLIR/CLIR, MIRS and Evaluation of IRS (5 Hours)

Multilingual Information Retrieval (MLIR), Cross-lingual Information Retrieval (CLIR)

Multimedia Information Retrieval Systems

Ontology-based Information Retrieval Models

Criteria for evaluation of Information Retrieval Systems

Prescribed Texts:

1. Korfhage, Robert R. Information Storage and Retrieval, New Delhi: Wiley, 1997.
2. Rajan T.N. (Ed.) Indexing Systems : concepts, models and techniques. 1981.
3. CHOUDHRY G.G.: Information retrieval systems. 1994.
4. Chowdhury, G.G. Introduction to Modern Information Retrieval. 2nd Ed. London, Facet Publishing, 2003.
5. Chu, Heting. Information Representation and Retrieval in the Digital Age. ASIST Monograph Series, 2003.
6. Christopher D. Manning, Prabhakar Raghavan and Hinrich Schütze (2009). An Introduction to Information Retrieval. Cambridge University Press, Cambridge, England. http://nlp.stanford.edu/IR-book/pdf/irbookprint.pdf
7. Foster, Allen and Rafferty, Pauline. Innovations in information retrieval: perspectives for theory and practice. Facet publishing, 2011.

Prescribed Journal Articles

1. Multiple terminologies: an obstacle to information retrieval. http://www.emeraldinsight.com/journals.htm?issn=0024-2535&volume=53&issue=6&articleid=859782&show=html
2. Towards user-centered indexing in digital image collections. http://www.emeraldinsight.com/journals.htm?issn=1065-075X&volume=22&issue=4&articleid=1580862&show=html
3. OGIR: an ontology-based grid information retrieval framework. http://www.emeraldinsight.com/journals.htm?issn=1468-4527&volume=36&issue=6&articleid=17065559&show=html
4. Flickr and Democratic Indexing: dialogic approaches to indexing. http://www.emeraldinsight.com/journals.htm?issn=0001-253X&volume=59&issue=4/5&articleid=1626452&show=html
5. Meta-tag: a means to control the process of Web indexing
6. http://www.emeraldinsight.com/journals.htm?issn=1468-4527&volume=27&issue=4&articleid=862221&show=html

- Image indexing and retrieval: some problems and proposed solutions

http://www.emeraldinsight.com/journals.htm?issn=0307-4803&volume=96&issue=6&articleid=859918&show=html

Additional Readings

1. Kumar, P. S.G. A Student's Manual of Library and Information Science (on the lines of the Net syllabus of UGC. Delhi, B.R.Pub., 2004
2. Olson, Hope A. and Boll, John J. Subject analysis in online catalogs. 2nd Ed. US: Libraries Unlimited.
3. Kumar, PSG. Knowledge organization, information processing and retrieval. New Delhi: BR Publications, 2004.
4. Kumar, PSG. Information analysis, repackaging and consolidation. New Delhi: BR Publications, 2004.
5. Atherton, Pauline. Handbook for information systems and service, Paris: UNESCO, 1977.
6. Vickery, B.C. Techniques of Information Retrieval. Butterworth, London, 1970

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: LIS-503

Course Name: Digital library (Theory)

Faculty: Dr. Dimple Patel

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
To acquaint the student with:

- Concept of digital libraries
- Building a Digital library collection
- Identification, Description and Interoperability standards
- Retrieval techniques, User Interfaces and Evaluation of digital libraries
- Digital preservation and archiving

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

8. Mid Term Examination: 25%
9. End Term Examination: 50%
10. Continuous Internal Assessment: 25%

- Assignment/Library Work/Class Test/Surprise Test/Quiz/Seminar: 15%
- Class Attendance: 10%

Course Contents

UNIT - I: Digital library basics (4 Hours)

Digital library: meaning, need and importance, architecture, examples. Access methods: Closed vs. Open
Digital library models: Kahn-Wilensky Architecture, Dienst and NCSTRL, Open Archival Information System (OAIS) Reference Model, etc.
Open source software for digital library: Overview

UNIT - II: Digital library collection development (3 Hours)

Digital information: definition, features
Types of digital information: Ebooks, Ejournals, Multimedia resources.
Digitization: process, technical issues.
File formats

UNIT - III: Identification, Description and Interoperability standards (4 Hours)

Persistent Identification for digital resources: URI, Handle System, DOI.
Metadata Standards – Overview
Interoperability standards: OAI-PMH, OAI-ORE

UNIT - IV: Retrieval, Interface and Evaluation (5 Hours)

Search and retrieval techniques/strategies
Metadata Harvesters (PKP-OHS) and Federated Search
User interfaces – Multilingual, Personalization and Visualization
Criteria for evaluation of digital libraries

UNIT - V: Digital preservation and archiving (4 Hours)

Digital Preservation: need and purpose
Digital Preservation methods/techniques
Digital Preservation standards - overview
Digital library projects: Global and Indian Initiatives

Prescribed Texts:

1. Witten, Ian H., Bainbridge, David and Nichols, David M. How to Build a Digital Library. 2Nd Edition, 2003.
2. Arms, William Y. Digital Libraries. MIT Press, 2000. Online Edition Updated in 2005.
3. http://www.cs.cornell.edu/wya/diglib/MS1999/index.html
4. G.G. Chowdhury, Introduction to digital libraries. UK, facet publishing , 2007
5. Hughes, Lorna M. Digitizing Collections: strategic issues for the information manager. Newyork, Neal Schuman Pub., 2004
6. Pedley, Paul. Digital Copyright. 2nd ed. London, Facet, 2009
7. HathiTrust Digital Library.
8. http://www.emeraldinsight.com/journals.htm?issn=0950-4125&volume=25&issue=7&articleid=1949590&show=html
9. World Digital Library
10. http://www.emeraldinsight.com/journals.htm?issn=0950-4125&volume=27&issue=4&articleid=17086914&show=html

Prescribed Journal Articles

1. Defining a digital library
   - http://www.emeraldinsight.com/journals.htm?issn=0737-8831&volume=25&issue=2&articleid=1610966&show=html
2. Choosing Software for a Digital Library
   http://www.emeraldinsight.com/journals.htm?issn=0741-9058&volume=24&issue=9/10&articleid=1722698&show=html
3. The system development life cycle and digital library development.
   http://www.emeraldinsight.com/journals.htm?issn=1065-075X&volume=23&issue=4&articleid=1631438&show=html
4. How not to run a digital library project
   http://www.emeraldinsight.com/journals.htm?issn=1065-075X&volume=20&issue=4&articleid=1509301&show=html
5. Digital library research: current developments and trends
   http://www.emeraldinsight.com/journals.htm?issn=0024-2535&volume=52&issue=5&articleid=859728&show=html

Additional Readings:

- Deegan and Tanner. Digital Futures. London, L.A., 2002
- G.G.Chowdhury, Introduction to digital libraries. UK, Facet publishing , 2007
- Rowley, Jennifer. The Electronic Library. 4th Ed. London, Lib. Assoc., 1996

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: LIS507

Course Name: Community Lab for Library and information Science

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

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Course Code: LIS-510

Course Name: IPR in Digital Era

Faculty: Dr. Dimple Patel

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- To acquaint students with basic concepts, legislations of Intellectual Property Rights (IPRs) in particular reference to India
- To equip students to deal with IPR challenges in day-to-day work especially in libraries and information centres.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%
  - Assignment/Library Work/Class Test/Surprise Test/Quiz/Seminar: 15%
  - Class Attendance: 10%

Course Contents

UNIT I: Introduction to Intellectual Property Rights (IPRs) (3 hours)

Intellectual Property Rights (IPRs): concept, need and purpose

Kinds of Intellectual Property Rights

Piracy, Plagiarism

UNIT II: Intellectual Property protection in India (3 hours)

Copyright Law in India – Genesis and present status.

Patents Act of 1970 – Genesis and present status.

Other industry-related IPRs: Trademarks, Industrial Designs, Semi Conductors and Integrated Circuits, Trade secrets: concept and overview.

UNIT III: International conventions and treaties relating to IP (5 hours)

Paris Convention, Berne Convention, Universal Copyright Convention (UCC), Patent Cooperation Treaty (PCT) – history, objectives/mission, important provisions.

WIPO – History, Mission and Activities; WCT, WPPT

TRIPS Agreement – Overview.

UNIT IV: Digital Rights Management (DRM) (5 hours)

DRM: Introduction, Techniques

DMCA; DRM provisions in EUCD

DRM in India: The Information Technology Act, 2000, Amendment Act, 2008; DRM provisions in The Copyright Amendment Act 2012 of India.

Opposition to DRM

UNIT V: IPR, Digital Rights and Open Access (4 hours)

IPR and Education: Copyright issues, Fair Use

IPR vs. Digital Rights

Licensing of digital content

Open Access to information: Open Educational Resources, OA Journals, OA books.

Prescribed Texts:

1. Demystifying Intellectual Property Rights by NR Subbaram. Lexis-Nexis India (2009) ISBN: 8180385787, ISBN-13: 9788180385780
2. Intellectual Property Rights in India. by VK Ahuja Publisher: Lexis-Nexis India (2009) ISBN-13: 9788180385193, ISBN-10: 8180385191
3. Digital Rights Management: Imperatives and Innovative Opportunities by B. K. Jain. Global Vision Publishing House (2012)
4. Digital Rights Management - An Introduction by D Satish Sbs Publishers (2010)
5. WIPO Intellectual Property Handbook: Policy, Law and Use. Available at: *http://www.wipo.int/about-ip/en/iprm/* Last accessed on: 19th March, 2012.

Prescribed Journal Articles

1. IPR in the ensuing global digital economy. http://www.emeraldinsight.com/journals.htm?issn=0737-8831&volume=19&issue=2&articleid=861272&show=html
2. RoMEO studies 1: the impact of copyright ownership on academic author self-archiving. http://www.emeraldinsight.com/journals.htm?issn=0022-0418&volume=59&issue=3&articleid=864215&show=html
3. RoMEO studies 5: IPR issues facing OAI data and service providers. http://www.emeraldinsight.com/journals.htm?issn=0264-0473&volume=22&issue=2&articleid=862047&show=html
4. Intellectual property rights and university employees http://www.emeraldinsight.com/journals.htm?issn=0024-2535&volume=50&issue=3&articleid=859633&show=html&
5. Molecular biologists as hackers of human data: Rethinking IPR for bioinformatics research
6. http://www.emeraldinsight.com/journals.htm?issn=1477-996X&volume=1&issue=4&articleid=1621509&show=pdf

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Course Code: LIS401
Course Name: Information Literacy
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

· To train the student in the advanced skills of information/knowledge, gathering processing, organization and retrieval
· To train the student in the Access various information sources, especially online eresources

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment: 25%

I. Assignment: 5%
II. Surprise Test: 10%
III. Seminar: 10%

Course Content:

UNIT - I: Fundamentals of Information Literacy (4 Hours)

· Role of information in the knowledge society
· Concept, need and importance of information literacy
· Types of information literacy
· ACRL information literacy standards

UNIT - II: Traditional information access tools & service (5 Hours)

· Library catalogues& union catalogues.
· Bibliographies, indexing & abstracting services
· Directories, yearbooks
· Biographical Geographical sources

UNIT - III: Search engines literacy (3 Hours)

· Origin and development of search engines
· Introduction to general&meta search engines

· Information search through specialized search engines
· How do search engines work

UNIT - IV: Online information search (4 Hours)

· OPACs & Worldcat
· Open source e-journals
· Open source e-books
· Online databases

UNIT - V: web.2.0 information& other e-resources (4 Hours)

· Learning portals, social networking sites as learning resources
· Subject gateways& directories
· Multimedia sources
· Blogs,RSSfeeds,wikis,List-forums

Prescribed Text Books:

1. American Association of School Librarians and Associations for Educational Communications and Technology. Information Standards for Student Learning. (1998) American Library Association, Chicago.
2. Krishnakumar: Reference Service, Ed.3, New Delhi, Vikas, 2003.
3. Crosby Connie.Effective blogging for libraries, facetpublishing, New York (2010)
4. Martin white. Making search work: implementing web, intranet and enterprise search. Facet publishing, New York (2005)
5. Solomon, David.Developing open access journals: A pratical guide, chandos publishing, UK (2008)

Suggested Extra Readings:

1. American Library Association. Information Literacy: a position paper on information problem solving (2000). Available at: www.ala.org/assl.positions/PS_infolit.html (accessed 21 July 2003)
2. Association of College and Research Libraries. Objecives for Information Literacy Instruction: A Model Statement for Academic Librarians. (2001). ACRL, available at: www.ala.org/acrl/guides/objinfolit.html (accessed 21 July 2003).
3. Baldwin (v a). Information Literacy in Science & Technology Disciplines. Library Conference Presentation and Speech. (2005).University of Nebraska, Lincoln. http://digitalcommons.unl.edu/library_talks/11
4. DELCOURT (M) and HIGGINS (C A). Computer technologies in teacher education: the measurement of attitudes and self- efficacy. Journal of Research and Development in Education. (1993). 27; 31-7p.

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[ESTABLISHED UNDER THE CENTRAL UNIVERSITIES ACT 2009]
PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: LIS402
Course Name: Web designing and hosting
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars,etc.)

Course Objectives:
On successful completion of the course the students will be able to do the following:
· Creating own websites and host
· The students will understand, essential step by step guide on how to set up a Website

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counseling, Activities and Tutorials (CAT): 25%
i. Quiz: 5%
ii. Surprise Test: 5%
iii. Mini-Project: 15%

Course Content:
UNIT - I: Web-designing using HTML codes (4Hours)
UNIT - II: Web-designing using HTML editors (4Hours)
UNIT - III: Hyperlinks and multimedia features (4Hours)
UNIT - IV: Hosting on web-servers (4Hours)
UNIT - V: Project (4Hours)

Prescribed Text Books:
1. Bruce Lawson. Introducing HTML5 (Voices That Matter), 2010, New Riders Press, USA
2. Gavin Hoole &Cheryl Smith.The Really, Really, Really Easy Step-by-Step Guide to Building Your Own Website: For Absolute Beginners of All Ages,New Holland publisher,2008,London.
3. Lan Lloyd .Build Your Own Web Site The Right Way Using HTML & CSS, 2nd Edition, 2003, sitepoint pvt.Ltd
4. Thomas A. Powell . HTML & CSS: The Complete Reference, Fifth Edition, 2006, Mc Graw Hill.

Suggested Extra Readings:
1. C. Xavier. World Wide Web Design with HTML. New Delhi: TMH, 2000.
2. Alan Poulter, Gwyneth Tseng and Goff Sargent: The Library and Information Professionals Guide to the World Wide Web. London : Facet Publishing, 1999

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: LIS 411
Course Name: Management of Libraries and Information Centers
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ groupwork; obligatory/ optional work placement; literature survey/ library work; data collection/field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)
Course Objectives:
1. To acquaint students with various functions and management of library / information centers
2. To train the students to become effective librarians/Information managers
Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.
Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counseling, Activities and Tutorials (CAT): 25%
i. Assignment: 10%
ii. Library Work: 5%
iii. Seminar: 5 %
iv. Surprise Test: 5%
Course Content:
UNIT - I: Concept; Functions and principles of management (5 Hours)
· Management concept - Historical overview; Principles of management and their application in Libraries and Information Centres
· Schools of Management Thought
· Systems Analysis and Design
· Change management
UNIT - II: Human Resource Management (4 Hours)
· Organisation models
· Job analyses and Job description; recruitment training development
· Motivation and leadership.
· Job evaluation and Performance appraisal
UNIT - III: Financial Management (3 Hours)
· Financial Management in LICs - Sources of finance; resource mobilization
· Budgeting - methods and techniques

· Budgetary control techniques- Cost Benefit, Cost Effective analysis

UNIT - IV: Project Management (5 Hours)

· SWOT
· PERT, CPM
· TQM – applications
· Six sigma, Reengineering

UNIT - V: Library and Information centre Management (3 Hours)

· Library routines; Acquisition procedures
· Technical processing; Circulation control; Serials control
· Collection development : policies and procedures

Prescribed Text Books:

1. Beardwell, Ian and Holden, Len. Ed. Human Resource Management: Contemporary Perspective. New Delhi: McMillan, 1996
2. Brophy, Peter and Courling Kote, Quality Management for Information and Library Managers. Bombay: Jaico, 1997
3. Krishna Kumar. Library Administration and Management. Vikas: Delhi, 2004.

Suggested Extra Readings:

1. Krishan Kumar. Library Manual. Delhi: Vikas, 2003
2. Ranganathan, S R. Library manual. 2nd ed. Bangalore: Sharada Ranganathan Endowment, 1988
3. Ranganathan, S R. Library administration. Bombay: Asia, 1959

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: LIS501
Course Name: Library automation and networks (Theory)
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
On successful completion of the course the students will be able to do the following:
· To acquaint the students with the planning and management of automated library systems
· To impart practical training in the housekeeping operation

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counseling, Activities and Tutorials (CAT): 25%
i. Assignment: 5%
ii. Library Work: 5%
iii. Surprise Test: 5%

Course Content:

UNIT - I: Library automation (4 Hours)
· Definition, need, purpose and advantages, historical development
· Identifying goals and objectives of automation
· Areas of Automation: Acquisition, technical services, OPAC, Administrative routines, Circulation and Serial Control
· Application of barcoding, RFID in libraries

UNIT - II: Evaluation of library automation systems (5 Hours)
· Criteria for selection of library automation software: open sources ,property, customize
· Criteria for selection of hardware specification
· Evaluation techniques
· Study of standards relevant to library automation

UNIT - III: Automation Procedure (3 Hours)

· Steps in Automation: Developing a basic Technology Plan

· Assessing needs and priorities, Preparing strategic Plan, Feasibility Study, Describing existing library services and technology

· Retrospective conversation techniques and process

· Integrated Library Management System

UNIT - IV: Library networks and information systems (4 Hours)

· Library Networks- OCLC, BLAISE, INFLIBNET, STN, RLIN

· Information Systems: NISCAIR, DESIDOC, SENDOC, NASSDOC

· PADIS, ENVIS, INIS

· AGRIS, BIOSIS, MEDLARS

UNIT - V: Case study of Library automation software (4 Hours)

· Comparative study of Library automation software's

· Current trends in Library automation software's

· Case study of KOHA

· Case study of SOUL

Prescribed Text Books:

1. R.S.Aswal.Librray Automation for 21 st Century, New Delhi, Ess Ess Publication.

2. Desiree Webber and Andrew Peters. Integrated Library Systems: Planning, Selecting, and Implementing, London: Libraries Unlimited, 2010.

3. Thomas R. Kochtanek and Joseph R. Matthews . Library Information Systems: From Library Automation to Distributed Information Access Solutions, London: Libraries Unlimited, 2002

4. H. K. kaul. Library Networks: An Indian Experience, New Delhi: Virgo Publications, 1992.

Suggested Extra Readings:

1. Satyanarayana, N. R. A manual of computerization of libraries. New Delhi: Viswa Prakashan, 1995.

2. John M. Cohn, Ann L. Kelsey and Keith Michael Fiels .Planning for library automation: A Practical Handbook, London : Library Association, 1998.

3. Michael D. Cooper, Design of Library Automation Systems: File Structures, Data Structures, and Tools, London: John Wiley & Sons

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: LIS502
Course Name: Library and automation network (practical)
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

· To impart practical training in the use software to develop bibliographic databases
· To give practical training in the use of library automation software

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counseling, Activities and Tutorials (CAT): 25%

i. Assignment: 5%
ii. Surprise Test: 5%
iii. Mini Project: 15%

Course Content:

UNIT - I: Hands-on experience with the WINISIS
UNIT-II: Hands-on experience with the KOHA
UNIT-III: Hands-on experience with the SOUL
UNIT-IV: Hands-on experience with servers and networking
UNIT-V: Mini project

Text Books:

1. WINISIS Manual
2. KOHA Manual
3. SOUL Manual

School of Physical & Material Sciences

Department of Physics & Astronomical Science

School of Physical & Material Sciences

Name of the Department: **Department of Physics & Astronomical Sciences**
Name of the Programme of Study: **MSc (Physics)**

Courses for Semester 1

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	PAS 401	Classical Mechanics	2	PAS 413	Dr Ayan Chatterjee
2	PAS 404	Quantum Mechanics	2	-	Dr Surender Verma
3	PAS 402	Mathematical Physics	2		Dr Jagdish
4	PAS 405	Electronics	2	PAS 415	Dr Dalip Singh
5	PAS 403	Classical Electrodynamics	2	-	Dr B. C. Chauhan
6	PAS 413	General Physics Lab	2	-	Dr O.S.K.S. Sastri, Dr Ayan Chatterjee
7	PAS 415	Electronics Lab	2	-	Dr Dalip and Dr Surender

Courses for Semester 3

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	PAS 411	Atomic and Laser Physics	2	-	Dr O S K S Sastri
2	PAS 505	Advanced Nuclear Physics	2	PAS 409	Dr Dalip Singh
3	PAS 503	Advanced Condensed Matter Physics	2	PAS 408	Dr Jagdish
4	PAS 426	Quantum Field Theory	2	PAS 407, PAS 401	Dr Surender Verma
5	PAS 428	Computational Physics	2	PAS 427	Dr O S K S Sastri
6	PAS 528	Accelerator and Reactor Physics	2	PAS 409	Dr B C Chauhan
7	PAS 529	General Theory of Relativity	2	PAS 401	Dr Ayan Chatterjee
8	PAS 411	Magnetic Materials	2	PAS 408	Prof K B Joshi
9	PAS 427	Computational Physics Lab	2	PAS 404	Dr O S K S Sastri and Dr Surender
10	PAS 429*	Nuclear Physics Lab	2	-	Dr Dalip and Dr Ayan

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	PAS 428	Computational Physics	2	PAS 427	Dr O S K S Sastri
2	PAS 427	Computational Physics Lab	2	PAS 404	Dr O S K S Sastri and Dr Surender
3	PAS 404	Quantum Mechanics	2		Dr Jagdish
4	CBB 406	A Practical Course in Programming	2		Dr Jagdish and Dr Chauhan
5	CBB 514	Molecular simulations and Applications	4	PAS 407	Dr O S K S Sastri
6	CSI 411	Modeling and simulation	2	CBB 514	Dr O S K S Sastri and Dr Jagdish
7	PAS 528	Accelerator and Reactor Physics	2	PAS 409	Dr B C Chauhan
8	PAS 529	General Theory of Relativity	2		Dr Ayan Chatterjee
9	PAS 401	Classical Mechanics	2		

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: CBB 514

Course Name: Molecular Simulations

Course Instructor: Dr. O.S.K.S. Sastri

Laboratory Instructors: Dr. O. S. K. S. Sastri and Dr. Jagdish Kumar

Credits Equivalent: 4 Credits (2 credit theory + 2 credit lab, One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course will discuss the background to computer modelling techniques used in materials simulations, including Interatomic Potential-based Methods (Energy Minimisation, Molecular Dynamics, Monte Carlo), Ab initio methods (Hartree Fock, Density Functional Theory) and properties that we can obtain from simulations. The course shall be accompanied by a laboratory that shall have hands-on simulations to reinforce the concepts taught in the classroom.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

Mid Term Examination : 25% weightage.

End Term Examination : 50% weightage.

Continuous Internal Assessment: 25% weightage

Course Contents:

PART-A: Ab-initio characterization of materials by density functional theory (DFT)

Unit-I: Density functional theory

A brief introduction to quantum mechanics of many particle systems and its importance to real world problems, Born Oppenheimer approximation, Hartree Fock approximation, method of self consistent fields (SCF), Slater determinant, brief introduction to density functional theory, Hohenberg-Kohn theorems, Kohn Sham equations. Exchange and correlation functional. Pseudopotentials and their generation. Periodic boundary conditions, Bloch theorem and Kroning Penney model. Various packages used to perform DFT based calculations (SIESTA, ELK, Wien2k etc.).

Unit-II: Properties of molecules

Basics of crystallography, Lattice vectors and basis. Total Energy and its relation to various properties. Input file for SIESTA and ELK codes. Computing bond length, vibrational frequencies and HOMO-LUMO gap etc. for various diatomic molecules (H_2, O_2 and HCl).

Unit-III: Properties of crystalline solids

Computing ground state structure for simple elements like Al, Cu etc among well known structures like SC, FCC, BCC. Electronic density of states and band structure for some metals and semiconductors. Magnetic ground state.

Part B: Classical molecular dynamics and Monte Carlo approach

Unit IV: Molecular dynamics simulations

The idea of molecular dynamics, classical molecular dynamics and equation of motion. Solution for equations of motion (Euler and Verlet algorithms). Modelling the interaction between particles, Periodic Boundary Conditions. Computing properties from (x,v) data obtained using MD calculations. Various interaction potentials and energy minimisation. Histogram Distributions of speed and velocities. Constant temperature molecular dynamics. The Melting Transition: Stable Structure of atoms for LJ potential.

Unit V: Monte Carlo simulations

The idea of MC simulations and random sampling. Importance sampling and Metropolis algorithm. Ising model. Mean field theory. Implementation of Mean Field Equation using the root finding methods. Monte Carlo algorithm for Ising model on an L x L square lattice. The Ising Model and Second-order Phase transition. Spontaneous magnetisation as a function of temperature for Ising model, Specific heat per spin as a function of temperature, Ising model correlations, First-order phase transitions.

Prescribed text books:

1. Density functional theory: A practical introduction by David S. Sholl and Janice A. Steckel, John Wiley and Sons.
2. Computational Materials Science: An Introduction by June Gunn Lee, CRC Press.

Suggested extra readings:

1. Electronic structure: Basic theory and practical methods by Richard M. Martin, Cambridge University press
2. Planewaves, pseudopotentials and LAPW methods by D.J. Singh and Lards Nordstrom, Springer

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: PAS 404
Course Name: Quantum Mechanics (QM)

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The purpose of the course is to provide a comprehensive introduction and application of the principles of quantum mechanics. Initializing the course from the basic structure of the formalism i.e. wave-particle duality, wave functions, Schrodinger equation, Hilbert space, state vectors and operators, Dirac notation etc. the students will get familiarize to understand the evolution of quantum system. The angular momentum operators, their commutation relations and addition of angular momentum will be discussed. An introduction to the main approximation methods and to the application of quantum theory to a variety of quantum systems will be provided.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination at the end of 5^{th} week for 30 marks: **25% weightage**
- End Term Examination at the end of 10^{th} week for 60 marks (20 marks from portions before mid-term and 40 marks from portions after mid-term): **50% weightage**
- Continuous Internal Assessment: 8 Assignments consisting of 4 or 5 problems to be solved at the end of every week other than 5^{th} and 10^{th}. Best 6 performances and attendance will be considered for evaluation which makes up for the remaining **25%** of the total 100 marks. Attendance

Course Contents

UNIT-I: Basic formalism: Wave function and the uncertainty principal (4 hours)
Wave-particle duality, Interpretation and conditions on the wave function, wave functions for particle having a definite momentum, wave packets, Heisenberg uncertainty principle, Schrodinger equation: time-dependent, conservation of probability, expectation values and operators, Ehrenfest theorem, time independent Schrodinger equation, Stationary states, Schrodinger equation in momentum space.

UNIT-II: The formalism of quantum mechanics (4 hours)
Hilbert space, Dirac notation, state of a system, dynamical variables and operators, expension in eigen functions, commuting observables, compatibility and the Heisenberg uncertainty relations, Unitary transformations, matrix representations of wave functions and operators, Schrodinger equation and the time evolution of a system, Schrodinger and Heisenberg pictures.

UNIT-III: Angular momentum and identical particles (4 hours)
Orbital angular momentum, orbital angular momentum and spatial rotations, eigen values and eigen functions of L^2 ,J^2, L_z and J_z, Spin angular momentum, matrix representation of angular momentum operators, addition of angular momentum.

UNIT-IV: One Dimensional and Three Dimensional Problems (4 hous)
One Dimensional: free particle, potential step, potential barrier, infinite square well, square well, linear harmonic oscillator, periodic potential(if the time permits), Three Dimensional: Seperation of Schrodinger equation in spherical polar coordinates, Hydrogenic atom, three dimensional isotropic oscillator.

UNIT-V: Approximation methods (4 hours)
Time-independent perturbation theory for non-degenerate energy levels, Time-independent perturbation theory for degenerate energy levels, Application to ground state of a harmonic oscillator, Variation method, Application to ground state of Helium, WKB approximation (if time permits).

Text books:

1. **David J. Griffiths,** Introduction to Quantum Mechanics, Prentice Hall.
2. **J.J.Sakurai,** Modern Quantum Mechanics, Benjamin Cumming.
3. **B.H. Bransden and C.J. Joachain,** Quantum Mechnanics, 2nd edition, Pearson education.

Reference Books:

1. **Albert Messiah,** Quantum Mechanics, North-Holland Publishing Company.
2. **R. Shankar,** Principles of Quantum Mechanics, Second edition, Plenum Press, New York.
3. **Ashok Das,** Quantum Mechanics, Tata McGraw Hill (2007).

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: PAS-426
Course Name: Quantum Field Theory

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
For a given theory to be consistent it has to be in compliance with the quantum mechanics and relativity. In the first part of the course the need of transition from non-relativistic quantum mechanics to relativistic one will be discussed. In that the Klein-Gordon field for spin-0 particles and Dirac equation for spin-half particles will be discussed along with their implications and limitations. Bilinear covariants of the Dirac theory, classical and quantized lagrangian field theory will be discussed in the second part. Need to go from particle/discrete interpretation to field interpretation and, thus, the KG field and Dirac field and their respective quantization will be introduced in the third and fourth part of the course. Last part of the course is dedicated to the perturbative field theory, S-matrix and Feynmann diagrams.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:
Mid Term Examination at the end of 5^{th} week for 30 marks: **25% weightage**
End Term Examination at the end of 10^{th} week for 60 marks (20 marks from portions before mid-term and 40 marks from portions after mid-term): **50% weightage**
Continuous Internal Assessment: 8 Assignments consisting of 4 or 5 problems to be solved at the end of every week other than 5^{th} and 10^{th}. Best 6 performances and attendance will be considered for evaluation which makes up for the remaining **25%** of the total 100 marks.

Course Contents

Unit 1: The Relativistic Equations-I: Klein Gordon equation (4 hours)

Introduction: 4-vector notation, natural units, space-time in RQM, creation and annihilation operators, Klein Gordon equation and its interpretation, continuity equation, KG equation in Schrodinger form, free Spin-0 particles, limitations of KG equation.

Unit 2: The Relativistic Equations-II: Dirac equation (4 hours)

Dirac equation, Dirac representation of matrices α and β, Adjoint equation, continuity equation, probability and current density, Stationary state solutions of Dirac equation, covariant formulation of Dirac theory, Lorentz invariance of Dirac equation, plane wave solutions and non-relativistic limit, spin and helicity operators, normalization of solutions, negative energy states and hole theory, bilinear covariants.

Unit 3: Lagrangian field theory (4 hours)

Introduction: why field theory, creation and annihilation operators e.g. harmonic oscillator, classical lagrangian field theory, quantized lagrangian field theory, symmetries and conservation laws, real KG field.

Unit 4: Canonical Quantization (4 hours)

Complex KG field, meson propagator, Dirac field, fermion propagator.

Unit 5: Interacting fields and Feynmann diagrams (4 hours)

Perturbation theory: examples, S-matrix expansion, Wick's theorem, Feynmann diagram in momentum and configuration space, Feynmann diagram for Compton, Mott and Bhabha scattering, feynmann rules for QED.

Prescribed Textbooks:

1. W. Greiner, **Relativistic quantum mechanics**, Springer.
2. F. Mandl & G. Shaw, ***Quantum Field Theory***, John-Wiley & Sons,Interscience Publ. 2010.
3. M. E. Peskin and D.V. Schroeder, **An introduction to quantum field theory,** Addison Wesley publishing company.

Reference books:

L. H. Ryder, ***Quantum field Theory***, Cambridge University Press, 2003.

A. Lahiri and P.B. Pal, **A First book of quantum field theory**, 2nd edition, Narosa publishing house.

J.J. Sakurai, ***Relativistic Quantum Mechanics***, Cambridge University Press, 1985

A. Das, ***Lectures on Quantum Field Theory,*** World Scientific.

Claude Itzykson and Jean-Bernard Zuber, ***Quantum Field Theory,*** McGraw-Hill Inc..

F. Gross, ***Relativistic Quantum Mechanics and Field Theory,*** Wiley-VCH.

Extra Suggested Readings:

1. M. Chaichian and R. Hagedorn, ***Symmetries in Quantum Mechanics***, Institute of Physics Publishing.
2. Volker Heine, ***Group Theory in Quantum Mechanics***, Pergamon Press.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code : PAS- 401.

Course Name : Classical mechanics.

Course Instructor : Ayan Chatterjee.

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work;obligatory/ optional work placement; literature survey/ library work data collection/ field work; writing of papers/ projects/dissertation/thesis seminars, etc.)

Course Objectives: The aim of this course is to introduce you to the basic formalisms of analytical dynamics. The course includes an introduction to Lagrangian mechanics and variational principles. We shall then go on to understand the concept of phase-space (phase-space was already introduced by Lagrange but it's most effective use was by Hamilton), Hamiltonian and the canonical equations of Hamilton. We shall also showthat under coordinate transformations on phase space, some phase-space quantities remain invariant for e.g., the Poisson bracket. We shall try to understand the reasons for this and work out examples related to them.

Attendance Requirements: Students are expected to attend all lectures in order to be able to full benefit from the course. A minimum of 75% attendance is a must, failing which; a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination at the end of 5^{th} week for 70 marks: 25% weightage
- End Term Examination at the end of 10^{th} week for 100 marks: 50% weightage
- Continuous Internal Assessment: 8 Assignments consisting of 4 or 5 problems to be solved at the end of every week other than 5^{th} and 10^{th}. Best 6 performances will be considered for evaluation which makes up for the remaining 25% of the total 100 marks.

Course Content:

I Lagrangian Mechanics (5 hours)

- Review of elementary principles of mechanics.
- Constraints, D'Alembert's principle and Lagrange's equations.
- Simple applications of Lagrange's equations.

II Variational principles (5 hours)

- Calculas of variations, examples.
- Hamilton's principle and Lagrange's equations.
- Conservation theorems and relation to symmetry, Noether's theorem.
- Examples: Oscillators and central force problems.

III. Hamilton's **formulation of classical mechanics (5 hours)**

1. Legendre transformations- simple examples from geometry and thermodynamics.
2. Construction of Hamiltonian and phase-space.
3. Conservation laws
4. Derivation of Hamilton's equations from the variational principle.

IV. Canonical transformations (5 hours)

1. Canonical transformations as transformations on phase-space.
2. Examples of canonical transformations.
3. Phase-space invariants: Poisson and Lagrange brackets.
4. Symplectic formulation of classical mechanics: Liouville's theorem.

Text books:

1. H. Goldstein: Classical mechanics, Addison-Wesley (1984).
2. J. B. Marion: Classical dynamics of particles and systems: J. Marion and S. Thornton, Brooks (2003).

Reference Books:

a. J. Jose and E. Saletan – Classical dynamics: a modern perspective, Cambridge Univ. Press (1998).
b. I. Percival and R. Richards- Introduction to dynamics, Cambridge Univ. Press (1982).

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Course Code: PAS 402
Course Name: Mathematical Physics
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)
Course Objectives: The course is designed to study:

- Ordinary differential equations and their solutions
- Partial differential equations
- Vectors and Matrices
- Complex numbers and functions
- Complex integration

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.
Evaluation Criteria:

- Mid Term Examination at the end of 5^{th} week for 30 marks: 25% weightage
- End Term Examination at the end of 10^{th} week for 60 marks (20 marks from portions before mid-term and 40 marks from portions after mid-term): 50% weightage
- Continuous Internal Assessment: 8 Assignments consisting of 4 or 5 problems to be solved at the end of every week other than 5^{th} and 10^{th}. Best 6 performances will be considered for evaluation which makes up for the remaining 25% of the total 100 marks.

Course Contents:

UNIT-I: Ordinary differential equations (5 Hours)

First and second order differential equations, variable separation, Power series method, Legendre's method and polynomials, extended power series method, Bessel equation and functions. Integral transforms, Convolution theorem.

UNIT-II: Matrices and vectors (5 Hours)

Matrices and their fundamental operations, Gauss elimination and Gauss Jordan methods, Matrix eigenvalues and eigenvectors. Vector and scalar functions and their fields. Gradient divergence and curl. Stoke's theorem, Green's theorem and Gauss divergence theorem, Poisson equation.

UNIT-III: Fourier analysis and partial differential equations (5 hours)

Fourier series, Fourier integral, Fourier sine and cosine transform, discrete and fast Fourier transform. Partial differential equations. Separation of variables. Heat equation solution by Fourier series method.

UNIT-IV: Complex analysis and integrals (5 hours)

Polar form, powers and roots. Analytic function and Cauchy Riemann equations. Cauchy's integral theorem and formula, derivatives of an analytical function. Power series, Taylor series and Laurant series, singularities and zeros. Residue theorem.

Prescribed Text Books:

Key texts

1. Advanced Engineering Mathematics by Erwin Kreyszic, John Wiley & Sons
2. Mathematical Methods for Physicists by G. Arfken and H.J. Weber , Elsevir Academic Press

Reference texts

1. Explorations in Mathematical Physics: The Concepts Behind an Elegant Language by Don Koks, Springer Science
2. Mathematical Physics by B.S. Rajput, Pragti Prakashan
3. Mathematical Methods in the Physical Sciences by W.L. Baos, John Wiley & Sons
4. Advanced Engineering Mathematics by Peter V. O'Neil, Thomson

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: PAS405

Course Name: Electronic Circuits

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to under the detail of the **basics of diode** its types, characteristics and applications (**diode circuits**) like rectifiers, Clipper, Clamper, comparator, sampling gate etc. **Integrated circuits as analog system building blocks:** including linear and nonlinear analog systems. **Integrated circuits as digital system building blocks** including adders, decoder/de-multiplexer, data encoder, ROM and its applications, flip-flops, shift registers, digital to analog converters and analog to digital converter.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%

Teacher may specify break up depending upon the requirement of the course including class attendance

Course Contents

UNIT I: **Transport Phenomena in Semiconductors** 4 hours

- Generation and recombination of charges
- Diffusion
- The continuity Equation
- Injected Minority charge carrier (low level injection)
- Potential variation with in a graded semiconductor

UNIT II: **Junction Diode Characteristics** 5 hours

- Open circuit p-n junction diodes
- p-n junction as rectifier
- Current components in p-n junction diode
- Volt-ampere characteristics and its temperature dependence
- Diode resistance
- Space charge or transition capacitance, varactor diodes.
- Charge control description of diode
- Diffusion capacitance
- Junction diode switching times
- Breakdown diode
- Semiconductor photodiode
- Photovoltaic effect and light emitting diode

- UNIT III: **Diode Circuits** 4 hours
- Diode as circuit element
- diode line concept
- piece wise linear diode model
- clipping circuit, clipping at two independent levels
- Clampers
- comparator, sampling gate
- rectifiers, and capacitor filter

- IV: **Integrated Circuits as Analog System Building Blocks** 3 hours
- Basic Operational Amplifiers
- Differential amplifier and its transfer characteristics
- Frequency response of operational amplifiers
- UNIT V: **Analog Systems** 4 hours
- Linear Analog System: basic operational amplifier applications, differential dc amplifier, stable ac coupled amplifier, analog integration and differentiation, electronic analog computation, active filters.
- Non-Linear Analog System: comparators, logarithmic amplifiers, wave generators,
- **Case Study/Experiments/Field Work etc, if that is the requirement of the course:**

Text Books: (Not more than three in any case)

1. Integrated Electronics by Jacob Miliman and Cristos Halkias, Tata McGraw-Hill Edition
2. Electronic device and circuit theory by Robert L. Boylestad and Louis Nashelsky, Pearson Education.

Additional Readings:

1. Operational Amplifiers Design and Applications by Jerald G. Graeme, Gene E. Tobey, Lawrence P. Huelsman, McGraw-Hill.
2. Digital Electronic Principles by A. P. Malvino, Tata McGraw Hill..
3. Electronic Devices and Amplifier Circuits by Steven T. Karris, Orchard Publications

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Name: Computational Physics Laboratory
Course Code: PAS 427
Course instructor: Dr OSKS Sastri, Dr. Surender Verma, Mr. Jagdish Kumar
Course duration: 15 weeks
Credits: 2 credits

List of simulations to be performed:

1: **Construction of wave packet**
i. Fourier Superposition of waves
ii. 1-D Fourier Transform Superposition with
➢a(k) as square pulse
➢a(k) as Gaussian pulse
iii. 2-D Fourier Transform Superposition for square and Gaussian pulses

2: Solving Time Independent Schrodinger Equation for various 1-D potentials
i. Particle in 1-D box
ii. Bound states of Square well potential
iii. 1-D Harmonic Oscillator potential
iv. Lennard Jones potential
v. Two Potentials separatd by a narrow tunneling barrier
vi. Anharmonic Oscillator
vii. Radial Equation for Hydrogen Atom

3: Solving Ground state energy and wave function using Variational Monte Carlo Technique
i. Lennard Jones Potential
ii. 2-D Harmonic Oscillator Potential
iii. 1-D Square Well Potential
iv. Anharmonic Oscillator Potential v(x) = x^4

4: Solving Time Dependent Schrodinger Equation using Crank-Nicholson Method

i. Spreading of a Gaussian wave packet
ii. Propagation of a Gaussian wave packet
iii. Reflection, Transmission and Tunneling of wave packet for different 1-D potentials

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Course Name: Computational Physics
Course Code: PAS 428
Course instructor: Dr OSKS Sastri
Course duration: 15 weeks
Credits: 2 credits
Pre-requisite: **PAS 404**
Co-requisite: **PAS 427**

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
The course is designed to deal with physics problems in quantum mechanics by using the following approach:

- analyzing the physical problem.
- method of solution, reformulating the problem in a way suitable for a simulation.
- choosing an efficient numerical algorithm.
- solution implementation. (analytic, writing the computer code.)
- running the simulations.
- analyzing and interpreting the results (visualization or exploration).

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%

(It may include components such as, Assignments, class tests, problem solving in class, to carry forward steps in lengthy expressions of the course contents, discussion on a problem solved in assignments, attendance in other activities, general discussion on a topic etc).

Course Contents:

Unit 1: **Construction of wave packet** **(4 hours)**

i. Fourier Superposition of waves
ii. 1-D Fourier Transform Superposition with
➢a(k) as square pulse
➢a(k) as Gaussian pulse
iii. 2-D Fourier Transform Superposition for square and Gaussian pulses

Unit 2: Solving Time Independent Schrodinger Equation for Simple 1-D potentials **(4hours)**

i. Particle in 1-D box
ii. Bound states of Square well potential
iii. 1-D Harmonic Oscillator potential
iv. Lennard Jones potential

Unit 3: Solving Time Independent Schrodinger Equation for involved 1-D potentials **(4hours)**

i. Two Potentials separatd by a narrow tunneling barrier
ii. Konnig Penny Model
iii. Anharmonic Oscillator
iv. Radial Equation for Hydrogen Atom

Unit 4: Solving Ground state energy and wave function using Variational Monte Carlo Technique **(4 hours)**

i. Lennard Jones Potential
ii. 2-D Harmonic Oscillator Potential
iii. 1-D Square Well Potential
iv. Anharmonic Oscillator Potential v(x) = x^4

Unit 5: Solving Time Dependent Schrodinger Equation using Crank-Nicholson Method and pseudo spectral methods **(4 hours)**

i. Spreading of a Gaussian wave packet
ii. Propagation of a Gaussian wave packet
iii. Reflection, Transmission and Tunneling of wave packet for different 1-D potentials

Textbooks:

1. Nicholas J. Giordano and Hisao Nakanishi, "Computational Physics", Pearson, 2006

2. J.M. Thijssen, "Computational Physics", Cambridge University Press, 2nd Edition, 2013

References:

1. R.C. Verma and Setul Verma, "C for Computer Simulations in Physics",Anamaya publishers, 2011.

2. H. Gould, J Tobocnik and W. Christian, "Introduction to Computer Simulation Methods",Pearson Education, 3rd Edition, 2006

3. Tao Pang, "An Introduction to Computational Physics", Cambridge University Press, 2nd Edition, 2010

4. Rubin H. Landau, Cristian C. Bordeianu and Manuel J. Paez, "Computational Physics", John Wiley and Sons, 2nd edition, 2013.

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: PAS 503

Course Name: Advanced Condensed Matter Physics

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

11. Familiarize students to band formation and simple models of band formation in solids.

12. Introduce concept of Fermi surfaces and their measurements.

13. Introduce the phenomena of superconductivity and related topics.

14. Dielectric and ferroelectric materials.

15. Introduce about defects and dislocations in crystalline solids.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination at the end of 5^{th} week for 30 marks: 25% weightage
- End Term Examination at the end of 10^{th} week for 60 marks (20 marks from portions before mid-term and 40 marks from portions after mid-term): 50% weightage
- Continuous Internal Assessment: 8 Assignments consisting of 4 or 5 problems to be solved at the end of every week other than 5^{th} and 10^{th}. Best 6 performances will be considered for evaluation which makes up for the remaining 25% of the total 100 marks.

Course Contents

Unit 1: Band theory of solids (5 hours)

Origin of energy gap, Brillouin zone and its construction for SC, FCC and BCC structures, Bloch theorem and its proof, Electron in a periodic potential (The Kronig-Penny Model), Language of band theory and Tight binding method for energy bands, typical Energy band structures of Si, Ge and Al & brief introduction of other methods.

Unit 2: Fermi surface in metals: (4 hours)

Electron velocity and the effective mass. Extended, periodic and reduced zone schemes, Simple examples of construction of Fermi surfaces, Electron, hole and open orbits, Measurement of Fermi Surface shapes de Haas-van Alphen effect, positron annihilation Compton spectroscopy.

Unit 3: Superconductivity: (4 hours)

Introduction; experimental facts, zero resistivity, critical temperature, critical B field and critical current. Type-I and type-II superconductors, vortex state. Basic properties of superconductors: Isotope effect, Specific heat, Meissner effect, Thermodynamic properties; London equations, Intermediate and mixed state, Basic elements of BCS theory, Flux quantisation in superconducting ring, High temperature superconductors.

Unit 4: Dielectrics and Ferroelectrics: (4 hours)

Polarization, Macroscopic Electric field, Depolarization field, Local electric field at an atom, Dielectric current and polarizability, Ferroelectric crystals & Classification, Polarization catastrophe, Soft optical phonons, Antiferroelectricity, Ferroelectric domains, Piezoelectricity, Ferro elasticity, Displacive transition & Soft optical phonons.

Unit 5: Imperfections in Solids: (3 hours)

Introduction and classification of imperfections, Point defects: Schottky and Frenkel defects, Line defects: Dislocation types, Dislocation theory, Plane defects: Large and small angle boundaries, Stacking faults, Color centresPrescribed.

Key texts

1. Solid state physics, Ashcroft and Mermin, Harcourt College Publishers
2. Introduction to solid state physics, Charles Kittel, John Wiley edition

Reference texts

1. Solid state physics, A. J. Dekker, Prentice Hall
2. Understanding solids: The science of materials, Richard J. D. Tilley, John Wiley and Sons
3. Solid state physics, Guiseppe Grosso and Guiseppe Pastori Parravicini, Academic Press (2003)

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: PAS 505
Course Name: Advanced Nuclear Physics

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to understand the nucleon-nucleon interactions which responsible for binding protons and neutrons into atomic nuclei, the physics of neutron and nuclear spin and moments, hyperfine structure finally we focus on to study the detail physics of meson.

Attendance

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%

Teacher may specify break up depending upon the requirement of the course including class attendance

Course Contents

UNIT I: **The Force between nucleons** 5 Hours

- The deuteron: Binding energy, spin and parity, magnetic moment, quadrupole moment
- nucleon-nucleon scattering
- proton-proton and neutron-neutron interaction
- properties of nuclear force
- the exchange force model

UNIT II: **Neutron Physics** 5 Hours

- Neutron sources
- absorption and moderation of neutrons
- neutron detectors
- neutron reactions and cross-sections
- neutron capture
- Interference and diffraction with neutron

UNIT III: **Nuclear spins and moments** 3 Hours

- Nuclear spin
- nuclear moment: magnetic dipole moment, electric quadrupole moments
- hyperfine structure

UNIT IV: **Meson Physics-I** (3) Hours

- Yukawa's Hypothesis
- Properties of □-meson: electric charge, isospin, mass, spin and parity, decay modes

UNIT V: **Meson Physics-II** (4) Hours

- Pion- Nuclear reaction
- Meson resonances
- Strange Mesons and Baryon
- CP violation in K meson-decay

Case Study/Experiments/Field Work etc, if that is the requirement of the course:

Text Books:

(Not more than three in any case)

1. Introductory Nuclear Physics by Kenneth S. Krane, John Wiely & Sons (1988)
2. Introduction to Nuclear Physics, H.A. Enge, Addison-Wesley (1971)

Additional Readings:

1. An Introduction to Nuclear Physics by W. N. Cottingham, D. A. Greenwood, Cambridge University Press.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: PAS- 506.

Course Name: General relativity.

Course Instructor: Ayan Chatterjee.

Course Duration: 10 Weeks.

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work;obligatory/ optional work placement; literature survey/ library work data collection/ field work; writing of papers/ projects/dissertation/thesis seminars, etc.)

Course Objectives: General theory of relativity is presently the accepted theory of classical gravity. It was created by Einstein in 1915 in an endeavor to extend the principles of special relativity for accelerated observers. This theory is considered the greatest scientific creation by any individual since the time of Newton. As you might be aware, general theory of relativity has been applied everywhere with great success, be it in the stars(relativistic astrophysics), the universe (relativistic cosmology) or the GPS in your our mobile phone. A theory with such vast set of applications (and almost a hundred years old), we believe, is a must learn for students. The course is designed to introduce you to the fundamentals of the theory and it's application in understanding the geometry and spacetime structure of compact massive objects.

Attendance Requirements: Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student will not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination at the end of 5^{th} week for 70 marks: 25% weightage
- End Term Examination at the end of 10^{th} week for 100 marks (20 marks from portions before mid-term and 40 marks from portions after mid-term): 50% weightage
- Continuous Internal Assessment: 8 Assignments consisting of 4 or 5 problems to be solved at

the end of every week other than 5th and 10th. Best 6 performances will be considered for evaluation which makes up for the remaining 25% of the total 100 marks.

Course Content:

I Newtonian gravity and special relativity (2 hours)

- Newton's theory of gravity.
- The principle of equivalence.
- Linearity and light.

II Tensors in the Minkowski spacetime (4 hours)

1. Inertial coordinates and the Lorentz transformations.
2. Four vectors and tensors in the Minkowski spacetime.
3. Tensor algebra.
4. Energy- momentum tensors.

III Tensors on curved spacetime (6 hours)

1. Tensor algebra.
2. Covariant derivative and parallel transport.
3. Tensor densities and tensor integration : Gauss' and Stokes' theorem.
4. Timelike and null geodesics.
5. Curvature tensors: the Riemann and the Ricci tensors.

IV. <u>Einstein's equations</u> (4 hours)

1. Einstein's tensor and the Einstein equation.
2. The Newtonian approximation.
3. The Einstein equations with matter and cosmological constant.
4. Einstein's equations from an action principle:

(i) The action for gravity and it's variation.

(ii) The action for matter and electromagnetic fields.

V. Spherical symmetry and compact objects: (4 hours)

1. The Schwarzschild solution.

2. Gravitational collapse and black holes: the Eddington- Finkelstein and the Kruskal coordinates.

3. Particle motion in the Schwarzschild geometry: the perihelion advance.

4. Rotating bodies: the Kerr solution.

Prerequisite: classical mechanics -PAS 401, Advanced classical electrodynamics – PAS 424.

Text books:

1. N. M. J. Woodhouse- General relativity, Springer (2000).
2. J. Hartle- Gravity, Pearson, (2000).
3. L. Landau and E. M. Lifshitz: Classical theory of fields, Pergamon.

Reference Books:

1. E. Taylor and J. Wheeler: Spacetime physics, W.H. Freeman (1992).
2. E. Taylor and J. Wheeler: Exploring black holes, Addison Wesley (2000).
3. B. Schutz: A first course on general relativity, Cambridge Univ. press, (2009).
4. A. Einstein: The special and the general theory, Empire books, (2013).
5. R. d'Inverno: Introducing Einstein's relativity, Oxford Univ. press (1992).
6. B. Schutz: Geometrical methods in mathematical physics, Cambridge Univ. press (1980).

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: PAS 513
Course Name: Magnetic Materials
Course duration: 15 weeks

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:
This course is designed to introduce concepts and exposure of Magnetism to the students. The origin of magnetic properties from localised and band electrons will be discussed. Characteristics of almost all types of magnetic materials will be introduced. Experimental techniques in magnetism to measure magnetic field, magnetization, susceptibility and temperature will be elucidated.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment: 25%

(It may include components such as, Assignments, class tests, problem solving in class, to carry forward steps in lengthy expressions of the course contents, discussion on a problem solved in assignments, attendance in other activities, general discussion on a topic etc).

Course Contents

Unit 1: Localised magnetism (6 hours)

- Origin of magnetism & Magnetic moment of single atom
- Magnetic moment of assembly of atoms
- Paramagnetic susceptibility of atoms, Ferromagnetism in local moment model

Unit 2: Magnetism from Band electrons (6 hours)

- Paramagnetic susceptibility of free electrons
- Ferromagnetism of band electrons
- Magnetic moment of Fe, Co, Ni and its few alloys
- Magnons-The dispersion relations

Unit 3: Antiferromagnetism, Ferrimagnetism and Helimagnetism (6 hours)

- Antiferromagnetism, magnetisation of sublattices
- Susceptibility below T_N , Perpendicular & parallel susceptibility
- Ferrimagnetism, structure of spinel ferrites, Susceptibility and magnetization, Saturation magnetic moment of ferrites, Hellimagnetism

Unit 4: Domain magnetism (6 hours)

- Domain magnetism & Magneto-crystalline anisotropy
- Magneto-static energy
- Bloch Walls, Magneto-elastic energy and magneto-striction
- Superparamagnetism, Soft, hard and magnetic materials, magnetic films and bubble domains

Unit 5: Techniques in magnetic measurements (6 hours)

- Generation & measurement of magnetic fields
- Measurement of magnetisation
- Measurement of paramagnetic susceptibility
- Measurement of Curie temperature

Textbooks:

1. J. Crangle: The Magnetic properties of Solids, Edward Arnold Publ., London 1977.
2. B.D. Cullity & C.D. Graham: Introduction to Magnetic Materials, John Wiley & Sons, New Jersey, 2009

Reference books:

1. S. Chikazumi: Physics of Magnetism, II Edition, Cambridge University Press, 1985
2. Nichola A Spaldin: Magnetic Materials Fundamentals & Device applications, Cambridge University Press, 2003
3. N. W. Ashcroft and N.D. Mermin, Solid State Physics, Harcourt Asia Pvt Ltd

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: PAS 528

Course Name: Accelerator and Reactor Physics

Course Instructor: Dr. B. C. Chauhan

Course Duration: 10 weeks (20 Hrs.)

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

The course is designed to Review

- Introduction: Historical view and main parts
- Types Design and Working of Accelerators and Reactors
- Accelerators in CERN: LHC
- Applications and Nuclear Safeguards

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in the examination.

Evaluation Criteria:

- Mid Term Examination at the end of 5^{th} week for 70 marks: 25% weightage
- End Term Examination at the end of 10^{th} week for 100 marks (about 40 marks from portions before mid-term and 60 marks from portions after mid-term): 50% weightage
- Continuous Internal Assessment: 8 Assignments consisting of 4 or 5 problems to be solved at the end of every week other than 5^{th} and 10^{th}. Best 6 performances will be considered for evaluation which makes up for the remaining 25% of the total 100 marks.

Course Contents: Accelerator and Reactor Physics (PAS 528)

2 Credits

I Accelerators **(3 hours)**

- Historical Developments, Layout and Components of Accelerators
- Electrostatic Accelerators, Linear Accelerators
- Phase Stability, Low Energy Circular Accelerators

II High Energy Accelerators **(4 hours)**

- Synchro-cyclotron, Proton Synchrotrons
- Colliding Beam Accelerators and Storage Rings
- Accelerators at CERN, Large Hadrons Collider (LHC)

III Neutron Physics **(5 hours)**

- Neutron Sources, Absorption and Moderation of Neutrons
- Neutron Reaction and Cross-sections
- Neutron Capture

IV Nuclear Reactors **(5 hours)**

- Energy and Characteristics of Fission, Nuclear Chain Reaction
- Physics of the Nuclear Reactor and Critical Size of a Reactor
- Types, Design and Working of Fission Reactors
- Characteristics of Fusion, Fusion Reactors, Design of Fusion Power Plant

V Applications & Nuclear Safeguards **(3 hours)**

- Reactor Safety, Domestic and International Nuclear Safeguards and Nuclear Waste Management.

TEXT BOOKS

1. Kenneth S. Krane : **Introductory Nuclear Physics**, John Wiley & Sons, 1988.
2. D. C. Tayal: **Nuclear Physics**, Himalaya Publishing House Pvt. Ltd.

REFERENCE BOOKS

1. S.Y. Lee: **Accelerator Physics**, World scientific, 2004.
2. Vena Carter: **Advanced Nuclear Physics**, Global Media, 2009.
3. H. Wiedemann: **Particle Accelerator Physics I,** Springer, 1999.

School of Social Sciences

Department of Social Work

School of Social Sciences

Name of the Department: **Department of Social Work**

Name of the Programme of Study: **MSW**

Courses for Semester 1

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite / Co-requisites if any	Teacher
1.	SWR 401	Basics of Social Work	2	NA	Dr A. Pradhan
2.	SWR 402	Contemporary Social Problem	2	NA	Mr S. Ahmad
3.	SWR 409	Concurrent Field Work and Viva-I	4	NA	All Faculty
4.	SOC 401	Understanding Contemporary Society	2	NA	New Faculty
5.	PBS 401	Dynamics of Human Behaviour	2	NA	Mr S. Ahmad

Courses for Semester 3

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite / Co-requisites if any	Teacher
1.	SWR 412	NGO Management	2	SWR 401 SWR 409	Mr S. Ahmad
2.	SWR 417	Concurrent Field Work and Viva-III	4	SWR 405 SWR 409	All Faculty
3.	SWR 423	Block Placement Training	4	NA	Mr S. Ahmad / Dr A. Pradhan
4.	SWR 453	Community Lab for Social Work	4	NA	All Faculty
5.	SWR 454	Social Development and Social Work	2	NA	Dr A. Pradhan

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1.	SOC 401	Understanding Contemporary Society by	2	NA	New Faculty / Prof. Arvind Agrawal
2.	PBS 401	Dynamics of Human Behaviour	2	NA	Mr S. Ahmad
3.	SWR 412	NGO Management	2	SWR 401 SWR 409	Mr S. Ahmad

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: PBS 401

Course Name: Dynamics of Human Behaviour

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Learn to apply Concepts and Theories of Psychology
- Develop a Critical Perspective of the Theories of Human Behavior and Personality.
- Understand the Nature and Development of Human Behaviour in Socio-Cultural Context.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment (CIA): 25%
    a) Presentation: 10%
    b) Spot Test: 10%
    c) Assignments: 5%

Course Contents:

UNIT - I: Socio- Cultural Environment, Human Behaviour, Growth & Development (4 Hours)

- Psychology: Meaning, Concept and its Branches

- Determinants of Human Behavior: Heredity & Environment
- Life Span Perspective of Human Development
- Role of Social Institution and Group in Shaping Human Behavior
- Understanding Human Behavior: Cross Cultural Perspective

UNIT - II: Basic Psychological Process **(4 Hours)**

1) Concept and Theories of
   - Cognition and Learning
   - Motivation, Emotion and Intelligence

2) Theories of Personality
   - Psychoanalytic Theories of Personality: Freud, Erikson and Adler
   - Behavioural Theories: Miller and Bandura
   - Humanistic Theories: Rogers and Maslow

UNIT - III: Mental Health and Process: Development & Assessment **(4 Hours)**

- Mental Health
- Mental Retardation
- Defense Mechanism
- Procrastinations & Stress Management

UNIT - IV: Abnormal Psychology **(4 Hours)**

- Abnormal Psychology
- Etiological Factors of Mental Illness
- Types of Mental Disorders
- Therapeutic Process

UNIT – V: Social Psychology **(4 Hours)**

- Social Psychology
- Attitude: Formation, Change and Measurement
- Prejudice, Stereotypes and Discrimination:
- Collective Behaviour: Crowd, Riot and Rebellion.

Prescribed Text Books:

1. Baron, A. Robert and Byrne, D., (2010), Social Psychology, New Delhi, Pearson Publications.
2. Morgan, C.T and King, R.A., (2007), An Introduction to Psychology, New Delhi, Tata McGraw Hill.
3. Baron, A. Robert, (2001), Psychology, New Delhi, Pearson Publications.
4. Ahuja, Niraj. (2002), A Short Textbook of Psychiatry, New Delhi, Jaypee Brothers

Suggested Additional Readings:

1. Park, K., (2010), Textbook of Preventive and Social Medicine, Jabalpur, Barnarsidass Bhanot Publishers
2. Page J.D., (2010), Abnormal Psychology, New Delhi, Tata McGraw Hill.

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
www.cuhimachal.ac.in

Course Code: SOC 401
Course Name: Understanding Contemporary Society
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)
Course Objective: The course is designed to

- Understand basic sociological concepts and social formations
- Develop skills to analyze and understand Indian society
- Learn to apply sociological insight in day to day life

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must, failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment (CIA): 25%
   a) Assignments: 10%
   b) Project Work: 10%
   c) Student Participation: 5%

COURSE CONTENTS:

UNIT - I: Orientation to Significant Sociological Concepts (5 Hours)

- Culture: Elements in Culture, Cultural Systems and Sub Systems
- Social Structure and Social Institution and Social Groups
- Socialization - Meaning, Socialization and Development of Self
- Social Conformity & Social Deviation
- Social Control

UNIT – II: Social Change (5 Hours)

- Social Change
- Marxist Approach to the Study of Society
- Modernization

- Globalization
- Post-Modernism

UNIT - III: Social Institutions (3 Hours)

- Family- The Joint and the Nuclear Family.
- Family as Social Institution, Changing Structures and Patterns of Family.
- Religion
- Role of Religion in Society, Secularism

UNIT - IV: Social Structure and Social Stratification (4 Hours)

- Social Stratification & Social Mobility
- Caste & Class: Changing Dynamics.
- Dalits, Adivasis and Minority Groups. Situation, Changing Relationship and Dynamics.

UNIT - V: Contemporary Social Concerns (3 Hours)

- Social Problems in Indian Social Structure (Caste & Politics and Communalism, Youth Unrest)
- Violence Against Women,
- Corruption

Prescribed Text Books:

1. Johnson, Harry M.,(2007), Sociology: A Systematic Introduction, New Delhi, Allied Publishers
2. Ahuja, Ram, (2001), Indian Social System, Jaipur, Rawat Publications
3. Ahuja, Ram, (2008), Social Problems in India, Jaipur, Rawat Publications

Suggested Additional Readings:

1. Haralambos, M. & Holborn, M., (2008), Themes and Perspectives in Sociology, London, Harper Collins.
2. Doshi, S.L., Modernity, Post Modernity & Neo Sociological Theories, Jaipur, Rawat Publications

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[ESTABLISHED UNDER THE CENTRAL UNIVERSITIES ACT 2009]
PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: **SWR 401**

Course Name: **Basics of Social Work**

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Become familiar with the core values and philosophy of social work profession and be able to imbibe these values into their professional self.
- Understand and differentiate social work and other related terms
- Understand the context of emergence of social work as a profession
- Understand the nature of Social work practice in different settings

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course.
A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment (CIA): 25%
  a. Presentation: 10%
  b. Assignment: 10%
  c. Class Test / Quiz : 5%

COURSE CONTENTS:

Unit I: Introduction to Social Service and Social Welfare (8 Hours)

- Basic Concepts : Social service, social services, social reform, social security, human & social capital
- Ideological perspectives: charity, philanthropy, humanitarian, humanistic-rationalistic, radical, human rights and social inclusion

Unit II: Introduction to Social Work Profession (5 Hours)

- Social Work: Definition, Meaning and Concept.
- Social Welfare: Meaning, Models of social welfare
- Social Work: Nature, Goals, Components, Process and Phases
- Basic Values and Principles of Social Work
- Methods of Social Work and Levels of Intervention

Unit III: Historical Development of Social Work (5 Hours)

- Development of Professional Social Work in U.K. and U.S.A.
- Social Service Traditions and Social Reform Movements in India
- Contribution of Gandhi, Ambedkar and Phule to Social Change
- Sarvodaya Movement and Bhoodan Movement

Unit IV: Social Work as a Profession (5 Hours)

- Basic Requirements of Social Work Profession
- Code of Ethics and Ethical Practice
- Social Work Functions and Roles of Social Workers.
- Skills and Competencies for Social Work Practice.
- Socio-culture Factors Affecting the use of the Principles of Social Work.

Unit V: Social Work Practice Areas (7 Hours)

- Emerging Perspectives and Trends of Social Work Practice.
- Community Development: Rural and Urban, Poverty Alleviation
- Family and Child Welfare
- Disability and Disaster Management.
- Work with Elderly and People Living with HIV/AIDS.

Prescribed Text Books:

1. Elizabeth A. Sehgal. et al. (2011). *Professional Social Work.* Jaipur: Rawat Publications.
2. Dubois, B. and Miley, K.K. (2005). *Social Work: An Empowering Profession*. London: Allyn and Bacon.
3. Hepworth, D. H., & Larsen, J. A. (2010). *Direct Social Work Practice: Theory and Skills*. Pacific Grove, Calif: Brooks/Cole.
4. Johnson, Louise C., and Stephen J. Yanca. (2010). *Social Work Practice: A Generalist Approach*. Delhi: PHI Learning Pvt. Ltd.
5. Sheafor, B. W., Horejsi, C. R., & Horejsi, G. A. (2011). *Techniques and guidelines for social work practice*. Delhi: PHI Learning Pvt. Ltd.

Supplementary Books:

1. Planning Commission, GOI. (1987). *Encyclopaedia of Social Work in India*. Delhi: Publications Division, Ministry of Information and Broadcasting.
2. Mizrahi, T., & Davis, L. E. (2008). *The Encyclopedia of Social Work*. Washington, DC: NASW Press.
3. Compton, B. R., Galaway, B., Cournoyer, B. R. (2005). *Social Work Processes* (7th Edn.), California: Brooks-Cole.
4. Skidmore, Rex A. and Thackeray, Milton G. (1997). *Introduction to Social Work*, Boston: Allyn & Bacon.
5. Sheldon, B., and Macdonald, G. M. (2009). *A textbook of social work*. New York, NY: Routledge.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: SWR 402

Course Name: Contemporary Social Problem

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: After completing this course the students will be able to:

- Develops an understanding about the social problems prevails in our society.
- Develop an understanding about the problems relating to Child and Welfare Services
- To develop an understanding of different issues as it affects individuals and groups.
- To expose students with ongoing strategies and programmes to eradicate poverty.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment (CIA): 25%
  a. Presentation: 10%
  b. Assignment: 10%
  c. Class Test / Quiz: 5%

Course Contents:

UNIT - I: Social Problem: Concept and Approaches (4 Hours)

- Concept, Characteristics, Reactions, Types and Causes of Social Problem.
- Theoretical Approaches to Social Problems.
- Methods of Studying and Stages in the Development of Social Problem.
- Role of Social Worker in Solving Social Problem
- Social Problem and Social Change in India.

UNIT - II: Social Problems **(4 Hours)**

- Poverty- Rural & Urban
- Alcoholism & Drug Addiction.
- Old Age & Destitution.
- Corruption and Lokpal Bill.

UNIT - III: Communalism, Secularism and Regionalization **(4 Hours)**

- Concept of Communalism in India.
- Theories of Communal Violence.
- Secularism and Regionalization.
- Role of Police
- Crime & Criminals

UNIT - IV: Violence against Women **(4 Hours)**

- Violence against Women.
- Type of Violence.
- Women's Harassment.
- Women Welfare Services.

UNIT – V Child's Social Issues **(4 Hours)**

- Child Abuse.
- Child Labour
- Youth Unrest and Agitation.
- Juvenile Delinquency
- Child Welfare Services

Prescribed Text Books:

1. Ahuja, Ram, (2007), *Social Problems in India.* Second Edition, Jaipur, Rawat Publications.
2. Jha, Jainendra Kumar Ed., (2009), *Encyclopedia of Social Work*, Volume-3, Social Welfare and Social Work, New Delhi, Anmol Publications.

Suggested Additional Readings:

1. Ahuja, Ram, (2000*), Criminology*, Jaipur, Rawat Publications.
2. Eitzen, D. S., Zinn, M. B., & Smith, K. E. (2014). *Social problems*. Boston : Pearson

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: SWR 454
Course Name: SOCIAL DEVELOPMENT AND SOCIAL WORK
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)
Course Objectives: The course is designed to
 Develop a critical understanding of the concept, strategies and process of social development.
 Understand the linkages between social needs, problems, development issues, and policies.
 To develop understanding of Social Policy and planning with special reference to India and their relevance to Social Work Practice.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. **A minimum of 75% attendance** is a must failing which a student may not be permitted to appear in examination
Evaluation Criteria:
1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Continuous Internal Assessment (CIA): 25%
a. Assignment: 10%
b. Class Test: 5%
c. Topic Presentation: 10%

Course Contents:
UNIT - I: Development & Planned Change **(7 Hours)**

- Planned Change - Meaning and Process
- Concept of Development and under-development
- The development debate and vulnerable groups: Scheduled castes, scheduled tribes and minorities
- Indicators of development
- Millennium Development Goals (MDG); Human Development & HDI
- Modernization and Development

UNIT - II: Concept of Social Development **(6 Hours)**

- Social Development – Meaning and concept
- Economic growth, Economic development and Social development
- Distinction between social and economic development
- Strategies of Development - People's Participation
- Sustainable Development

UNIT - III: Social Policy **(7 Hours)**

- Definition and Meaning
- Social Policy as an instrument of Social Development
- Characteristic Features of Social Policy
- Steps in Policy Formulation
- Models of Social Policy
- Social Policy for social inclusion

UNIT – IV: Social Planning **(5 Hours)**

- Social Planning – Meaning and concept
- Need and Process of Social Planning
- Panchayati Raj Institutions and Gram Sabhas in Social Planning
- Role of voluntary organisations in social planning

UNIT - V: Social Development in Indian Context **(5 Hours)**

- Areas of Development
- Development Administration
- Development Planning and Role of Planning Commission
- Impact of globalization on the Indian development process
- Role of Social Worker as an agent of Social Change and Social Development.

Prescribed Text Books:

1. Midgley, James; Livermore, M., *The Handbook of Social Policy*, Sage Publications, London, 2008
2. Gore, M.S. (1985), *Social Aspects of Development*, Jaipur: Rawat Publications.
3. Titmus, R.M. (1974). *Social Policy*. George Allen & Unwin, London

Suggested Additional Readings:

1. Nederveen, P. J. (2010). *Development theory: Deconstructions/reconstructions*. London [u.a.: SAGE.
2. Mishra, P.D. (1994) *Social Work – Philosophy & Methods*, New Delhi: Inter-India Publications
3. Kulkarni, P.D. (1978) *Social Policy and Social Development in India*, Madras: Association of School of Social.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: SWR 412

Course Name: NGO Management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to:

- To introduce the students to NGO Sector.
- To introduce the Basic Concepts of NGOs.
- To provide an overview of NGOs.
- To provide basic managerial skills of NGO.
- To equip the students for formation of NGO.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Continuous Internal Assessment(CIA) : 25%
  a. Project Proposal:10%
  b. Presentation: 10%
  c. Assignments: 5%

Course Contents:

UNIT - I:NGOs – An Introduction, Concepts and Functions (4 Hours)

- Concepts, Typology of Non Governmental Organization.
- Functions and Roles of Non Governmental Organizations.
- Problem Statement, Identification & Formulation
- Problem Solving

UNIT - II: Societies, Trusts and Companies (5 Hours)

- How to register a Society.
- Matters included in Bye - Laws of a Society.
- Matters included in Rules & Regulations.
- Income Tax-Exemptions & Foreign Contribution Regulation Act (FCRA)

UNIT - III:Project Proposal and its Evaluation **(5 Hours)**

- Strategy: Vision / Mission Statements, Differentiation and Organizational Alignment.
- Best Practice Case Study.
- Strategy Formulation.
- Proposal Writing
- Mechanics of Proposal Writings, General Lineation for Formulation of Project Proposals.

UNIT – IV: Budgeting **(3 Hours)**

- Purpose and Preparation of a Good Budget.
- Guiding Principles of Budgeting.
- A Good Budget –Desirability, Feasibility, Possibility, Continuity and Impact.

UNIT – V: Fund Raising **(3 Hours)**

- Principles of Fund Raising.
- Searching &Role of Fund Raiser.
- Factors affecting Fundraising.

Prescribed Text Books:

1. Accenture - Stiftung, Germany, School of Communication Management, International University in Germany, Bruchsal, The Banyan, India. (2009) Strategic Research and Political Communications for NGOs: Initiating Policy Change. New Delhi, Sage Publications India Pvt. Ltd.

Suggested Additional Readings:

1. Fr. Emmanuel S. Fernando (2001), Project From Problems, Emmanuel Sylvester., Mumbai.

Department of Economics & Public Policy

School of Social Sciences

Name of the Department: **Department of Economics & Public Policy**

Name of the Programme of Study: **MA (Economics)**

Courses for Semester 1

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite/ Co-requisites if any	Teacher
1	ECN 405	Microeconomic Theory	4	-	Prof. HR Sharma
2	ECN 404	Mathematics for Economists	4	-	Mr. Indervir Singh
3	SAS 404	Applied Statistics	4	-	Mr. Indervir Singh

Courses for Semester 3

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite/ Co-requisites if any	Teacher
1	ECN 440	Evolution of Indian Economic System	4	-	Mr. Kamal Singh
2	ECN 423	International Economics	4	-	Mr. Kamal Singh
3	ECN 411	Agricultural Economics	4	-	Mr. Amit K. Basantaray Prof. HR Sharma
4	ECN 412	Industrial Economics	4	-	Mr. Amit K. Basantaray
5	ECN 415	Labour Economics	4	-	Mr. Kamal Singh
6	SAS 405	Statistical Methods with Packages	2	-	Mr. Indervir Singh
7	SWR 405	Basics of Research Methodology	2	-	Mr. Indervir Singh
8	Professional Development Activity*		4	-	Mr. Amit K. Basantaray

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisite/ Co-requisites if any	Teacher
1	ECN 401	Basics of Microeconomics	2	-	Mr. Amit K. Basantaray
2	ECN 445	Basic Terms and Concepts in Economics	2	-	Mr. Amit K. Basantaray
3	ECN 407	Indian Economic Environment	2	-	Mr. Kamal Singh

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: ECN 404

Course Name: Mathematics for Economists

Faculty: Mr.Indervir Singh

Credit Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course objectives:

- to make students capable to understand basic mathematics required for understanding economics;
- tofamiliarize students with the use of mathematics as a tool to analyze economic phenomena.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25 percent

2. End Term Examination: 50 percent

3. Counselling, Activities and Tutorials (CAT): 25 percent

I. Class Participation: 5 percent
II. Assignment: 10 percent
III. Class Test: 10 percent

Course Content

Unit- I **(12 hours)**

Significance of Mathematics in Economics; Real numbers; Set theory; Relations and functions; Economic equilibrium analysis.

Unit- II **(12 hours)**

Linear models and Matrix Algebra: Matrix operations; Commutative, associative, distributive laws, Transposes, Determinants, Nonsingularity, Laplace expansion, Matrix inversion, Cramer's rule;Applications in Economics: Input-output model.

Unit- III **(12 hours)**

The derivative: Limit; Continuity; differentiability, Rules of differentiation, Partial differentiation, Total differentials, Total derivatives, Implicit functions; Applications in Economics: Input-Output Model, Market Models.

Unit- IV **(12 hours)**

Optimization: First and second derivative tests; Derivatives of exponential function and logarithmic function: Applications in Economics: Profit Maximization.

Functions of two or more variables: Second order partial derivatives and total differentials; Finding maximum/minimum: Unconstrained optimization, Quadratic forms, Characteristic roots, Concavity and convexity; Applications in Economics.

Constrained optimization: Classical Programming, Lagrange multiplier, Second order condition; Applications in Economics: utility maximization and consumer demand,Homogeneous functions,Homotheticity.

Unit- V **(12 hours)**

Rules of integration; Indefinite integrals; Definite integrals; Improper integrals; Applications of integration in Economics.

First order difference equations: Dynamic stability of equilibrium; Applications in Economics: Cobweb model.

Prescribed Text Books:

1. Carter, Michael (2001). *Foundations of Mathematical Economics*. Cambridge: MIT Press.
2. **Chiang, Alpha C. and Kevin Wainwright (2005) *Fundamental Methods of Mathematical Economics 4th Edition.* New York: McGraw-Hill/Irwin.**
3. Franklin, JoelN. (2003). *Methods of Mathematical Economics: Linear and Nonlinear Programming*,Fixed-PointTheorems. Delhi: PHI Learning Private Limited.
4. Intriligator, Michael D. (2013). *Mathematical Optimization and Economic Theory*. Delhi: PHI Learning Private Limited.

Supplementary Readings:

1. Simon, Carl P. and Lawrence E. Blume (1994). *Mathematics for Economists*. New York: W. W. Norton & Company.
2. Sundaram, Rangarajan K. (1996). *A First Course in Optimization Theory*. New York: Cambridge University Press.
3. Sydsaeter, Knut and Peter J. Hammond (1995) *Mathematics for Economic Analysis*. New Delhi: Pearson Education.
4. Sydsaeter, Knut, Peter J. Hammond, AtleSeierstad and Arne Strom (2008) *Further Mathematics for Economic Analysis 2nd Edition*. Prentice Hall.
5. Vohra, Rakesh V. (2005). Advanced Mathematical Economics. New York: Routledge.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: SAS 404

Course Name: Applied Statistics

Faculty: Mr.Indervir Singh

Credit Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course objectives:

- To familiarize students with statistical methods;
- To enable students to apply statistical methods in data analysis.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25 percent

2. End Term Examination: 50 percent

3. Counselling, Activities and Tutorials (CAT): 25 percent

I. Class Participation: 5 percent
II. Assignment: 10 percent
III. Class Test: 10 percent

Course Content

Unit- I **(12 hours)**

Univariate distributions: frequency table, histogram; Central tendency: Mean, Median, Mode; Measures of Dispersion: Range, Quartile deviations (QD), Mean deviation, standard deviation, Coefficient of variation (CV), Box Plots; Measure of inequality: Lorenz curve, Gini coefficient and FGT (Foster-Greer-Thorbecke) measures of poverty,Herfindahl-Hirschman Index (HHI).

Unit-II **(12 hours)**

Measures of Skewness and kurtosis; Correlation: Simple correlation, Partial correlation, Multiple Correlations; Index Numbers: Simple index number, Composite index number, Price Index, Splicing.

Unit- III **(12 hours)**

Probability: Basic concepts of probability, Tree diagram; Probability Distributions: Probability distribution for discrete and continuous variables, Joint probability distribution; Expectation and moments; Normal distribution, Binomial distribution, Poisson distribution; Central limit theorem; Inference using normal distribution.

Unit IV **(12 hours)**

Sampling: Sample and population, Random sampling, sampling distribution and standard error; Tests of significance: Hypothesis testing, Z-test, t-test, F-test, Chi square test, Analysis of Variance (ANOVA).

Unit- V **(12 hours)**

Regression analysis: Two-variable regression, Test of significance, Goodness of fit, Multivariate regression, Residual plot; Time Series Analysis: Nature and decomposition of a time Series, Analysis of trends, Moving average, seasonal component, Cyclical and random component.

Prescribed Text Books:

1. Freedman, David, Robert Pisani and Roger Purves. (2009). *Statistics*, *4th edition*. New York: W. W. Norton & Company.
2. Hamilton, Lawrence C. (1990). *Modern Data Analysis: A First Course in Applied Statistics*. Belmont, CA: Brooks/Cole Publication.
3. Koutsoyiannis, A. (1977). *Theory of Econometrics*. New York: Palgrave.
4. Nagar, A. L. and R. K. Das. (1976). *Basic Statistics*, *2nd edition*. New Delhi: Oxford University Press.

Supplementary Readings:

1. Clark, Megan J. and John A. Randal (2010). *A First Course in Applied Statistics, 2nd edition*. Pearson Education.
2. Dunn, Dana S. (2001). *Statistics and Data Analysis for the Behavioral Sciences.* New York: McGraw-Hill.
3. Hamilton, Lawrence C. (2003). *Statistics with STATA, 8th edition*. Boston: Brooks/Cole, Cengage Learning.
4. Lewis, Margaret (2011) *Applied Statistics for Economists*, Routledge.
5. Marsh, Catherine (2009). *Exploring Data: An Introduction to Data Analysis for Social Scientists. 2nd Edition*. London: Polity Press.
6. Moore, D.S. and McCabe, G.P. (2003). *Introduction to the Practice of Statistics*. New York: W.H. Freeman & Company.
7. Ott, Lyman R and Longnecker, Michael (2008) *An Introduction to Statistical Methods and Data Analysis, 6th Edition*. Belmont, CA: Brooks/Cole Publication.
8. Peck, Roxy, Chris Olsen, Jay L. Devore. (2012). Introduction to Statistics and Data Analysis, 4th edition. Boston: Brooks/Cole, Cengage Learning.
9. Rohwer, Götz (2012) *Models in Statistical Social Research.*Routledge.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: ECN 405
Course Name: Microeconomic Theory
Faculty: Professor H. R. Sharma

Credit Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Equip students with comprehensive and rigorous theoretical concepts and methodology;
- Enabling students analyzing the behavior of individuals, firms and markets using general, static and partial equilibrium approach.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 per cent attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Counselling, Activities and Tutorials (CAT): 25%
  - i Class Participation: 5%
  - ii Assignment: 5%
  - iii Quiz: 5%
  - iv Presentation : 10%

Course Content

Unit-I **(12 hours)**

Scope of micro economics, methodology of economics as a positive science, demand analysis, partial vs. general equilibrium, theory of consumer behaviour, cardinal utility theory, ordinal utility theory, and revealed preference hypothesis, applications of ordinal and revealed preference approaches and measurement of consumer surplus.

Unit-II **(12 Hours)**

Production and cost: Technology and production function, cost minimising equilibrium and choice techniques and scale, expansion path and derivation of long run average cost. Homogeneous production function, sources of various economies and diseconomies of scale. Production cost curves and learning curves. Saucer shaped and L shape long run average cost curves, Saucer shaped average variable cost curves. Relationship between short run and long run cost curves and engineering cost curves.

Unit –III **(16 Hours)**

Market Structures and Pricing Process: Equilibrium of firm and industry under perfect competition; Monopoly; bilateral monopoly; price discrimination, and Monopolistic competition; Excess capacity and imperfect competition. Oligopoly: Definition and meaning, Cournot model, Bertrand model, Stackelbergduopoly model, Kinked demand model, Chamberlin model. Collusive oligopoly: Cartel, Price leadership with dominant firm and low cost firm, Barometric price leadership. Bain's limit price theory. Marginalism versus average cost pricing. Profit maximisation *vs*Baumal'sSales maximisation hypothesis, Introduction to Game Theory.

Unit-IV **(8 Hours)**

Factor Pricing: The Marginal Productivity Theory of Distribution. The adding up Problem and Euler's theorem.Modern theory of distribution. Theory of Rent: Ricardian and Modern. Theories of Interest: Classical, Theories of Wages: Wage determination under perfect and imperfect competition; wage determination under trade unionism.

Unit- V **(10 Hours)**

Welfare Economics: Pareto optimality conditions in production, consumption and exchange, Kaldor-Hicks compensation criterion, Bergson-Samuelson social welfare function, maximisation of social welfare function, efficiency and welfare maximisation in perfect competition, inefficiency of imperfect competition, externalities in production and consumption and market failure due to externalities in production.

Prescribed Text Books:

1. Koutsoyiannis, A. (1985), Modern Microeconomics, Macmillan, London.
2. Pindyck, Robert S. and Rubinfeld, Daniel L. (2009), Micro Economics (7th Edition), Pearson Education, New Delhi.
3. Varian Hal R (1995), Intermediate Micro Economics: A Modern Approach, W.W Norton, New York

Supplementary Readings:

1. Ferguson, C.E. (1968), Microeconomic Theory, Cambridge University Press, London.
2. Stigler, G.J.(1996), The Theory of Price (4th Edition), Premier Hall, New Delhi
3. Baumol W. J. (1982), Economic Theory and Operations Analysis, 4th Ed, Prentice Hall of India, New Delhi

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[ESTABLISHED UNDER THE CENTRAL UNIVERSITIES ACT 2009]
PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: ECN 411

Course Name: Agriculture Economics

Faculty: Mr. Amit Kumar Basantaray

Credit Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course objectives:

- Familiarize students with theoretical and conceptual issues in agricultural economics
- FamiliarizestudentswithissuesthatarerelevanttoIndian agriculturaleconomics
- Enable students to understand and analyse problems of Indian agriculture

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25 per cent

2. End Term Examination: 50 per cent

3. Counselling, Activities and Tutorials (CAT): 25 per cent

   i. Class Participation and Attendance: 5 per cent
   ii. Assignment 5 per cent
   iii. Quiz: 5 per cent
   iv. Library work: 5 per cent
   v. Presentation: 5 per cent

COURSE CONTENT

Unit-I: **(12 Hours)**

Role of agriculture in economic development, Decline in the importance of agriculture with economic growth and structural change, Production function, input-input and product-product relationships, Equilibrium of the capitalist farm and peasant family farm, Equilibrium of share-tenant farm and its efficiency.

Unit-II: **(12 Hours)**

Nature and Type of Risk and Uncertainty in Agriculture, Methods used by farmers and Government policies for reducing risk and uncertainty, Nature of supply and demand for agricultural products and structure of agricultural markets, Instability of agricultural prices; need and objectives of agricultural price policy, Schultazian theory and role of technological change in modernization of traditional agriculture.

Unit-III: **(12 Hours)**

Natural Resource Base of Indian Agriculture, Agrarian Structure in India, Agricultural growth in India since 1950-51, Capital Formation in Indian Agriculture, Agricultural Inputs (Seeds, Fertilisers, Irrigation), land reforms in India, Progress of Green revolution in India and its impact on production, rural employment and income distribution.

Unit-IV: **(12 Hours)**

Nature of return to scale and farm size productivity relationship in Indian agriculture, Terms of trade of agricultural sector in India since independence, Agricultural Price Policy in India, WTO & Indian Agriculture, and Trends in Agricultural Trade in the context of the reforms.

Unit-V: **(12 Hours)**

Agricultural Credit in India: Sources, problems and government policies since independence, Recent initiatives in improving access to credit in agriculture, Liberalization and Indian Agriculture, Contract Farming, Farmer Distress and Suicide.

Prescribed Text Books

1. Heady,E. O.(1952) Economics ofAgriculturalProduction andResourceUse, Prentice-Hall ofIndia Pvt. Ltd, NewDelhi.

2. Schultz,T. W.(1969), Transforming Traditional Agriculture, Lyall Book Depot, Ludhiana.

3. Himmat Singh (2001), Green Revolution Reconsidered, Oxford University Press, New Delhi

4. R. Cohen (1968), The Economics of Agriculture, Butler & Tanner Limited, Frome and London, London

5. Rao, C. H. Hanumantha (2005), Agriculture, Food Security, Poverty and Environment, Oxford University Press, New Delhi

6. L. S. Subba Reddy, P. Raghu Ram, T. V. NeelakantaSatry and I Bhavani Devi (2004), Agricultural Economics, Oxford IBh Publishing Co. Pvt. Ltd., New Delhi

7. Bhalla, G S &Gurmail Singh (2001), Indian Agriculture: Four Decades of Development, Sage Publication, New Delhi

8. Bhalla, G S (2007), Indian Agriculture since Independence, National Book Trust, India.

9. Basu, Kausik&Maertens, Annemie (Ed.) (2010), The Concise Oxford Companion to Economics in India, Oxford University Press.

Suggested Additional Readings

1. Sharma, H. R. (1995), Agrarian Relations in India: Patterns and Implications, Har-Anand Publication, New Delhi.
2. Bruce F. Johnston and John W Mellor (1962), 'Role Agriculture in Economic Development *American Economic Review*, Vol.51, No. 4, Sept, pp. 566-593
3. 1Sharma, H. R. (1994), 'Distribution of Landholdings in Rural India, 1953-54 to 1981-82: Implications for Land Reforms', *Economic and Political Weekly*, Vol. XXIV, No. 13, pp. A12-A25.
4. Bandhu Das Sen (1974), The Green Revolution in India, Wiley Eastern Private Limited, New Delhi
5. Sharma, H. R. (2010), 'Magnitude, Structure and Determinants of Tenancy in Rural India: A State Level Analysis', *Indian Journal of Agricultural Economics*, Vol. 65, No. 1, pp. 80-100

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Course Code: ECN 412

Course Name: Industrial Economics

Faculty: Mr.Amit Kumar Basantaray

Credit Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Enabling students to understand various concepts of Industrial Economics;
- Enabling students to understand investment and pricing decisions of Industries;
- Equip students with comprehensive and rigorous understanding of application of economic theories in industry;
- Familiarising the students with important issues in Industrial Development, Industrial Finance, and Industrial policies with special reference to India.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 per cent attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%

2. End Term Examination: 50%

3. Counselling, Activities and Tutorials (CAT): 25%

i. Class Participation: 5%
ii. Assignment: 10%
iii. Presentation : 10%

COURSE CONTENT

(The course content is designed keeping in view the syllabus that is covered by students in course ECN 405, i.e. Microeconomic Theory)

UNIT-1: (10 hours)

Introduction: History and Scope, A framework of Industrial Economics. Industrial Organization, Demand, Costs, Efficiency. The firm and its Boundaries.Games and Strategy.

UNIT-2: (10 hours)

Monopoly and Regulation. Essential Facilities and Access Pricing, Competitive Selection, Oligopoly in Industrial Organization. Collusion and Industrial Organization.Market Structure and Market Power-Theory and Empirical Estimation.

UNIT-3: Investment and Pricing Decisions (15 hours)

Price Discrimination in Industries.Vertical Relations, Product Differentiation, Advertisement, Entry Costs and Market Structure.Strategic Behaviour-Entry and Exit.Research and Development.Networks and Standards.

UNIT-4: Theories of Industrial Location (10 hours)

Theories of Industrial Location: Webber, Sargent Florence, Industrial Location Quotient. Factors influencing location of industries. Industrial imbalance: causes and measures. Need for balanced regional development of industries.

UNIT-5: Industrial Finance and Policies (15 hours)

Industrial Finance: Meaning, Scope, Importance of Industrial finance, Sources of Industrial Finance: Private, Public and Co-operative Sector; Shares, Debentures, Bonds, Deposits, Loan etc. Role, Nature, volume and types of institutional finance. Foreign capital, Need for foreign capital, Government policy towards foreign capital, Direct Investment, Foreign Institutional Investment, Euro Issues, GDR, ADR, External Commercial Borrowings.

Brief Outline of Industrial Policies of 1948, 1956, 1977.Industrial Policies since 1991.Trends in Industrial Growth since liberalization.Performance and problems of small scale and cottage industries in India.Role of MNCs in India. Review of economic recession in industrially advanced economies and its impact on India.

Prescribed Text Books

1. Alhuwalia, I.J. (1985), *Industrial Growth in India*, Oxford University Press, New Delhi
2. Hay, D. A. and D. J. Morris (1991), *Industrial Economics and Organization: Theory and Evidence*, Oxford University Press, New York.
3. Cabral, Luis M B (2013), *Introduction to Industrial Organization*, PHI Learning Private Limited, Delhi.

Selected articles and materials will be provided in the classroom for reading and discussion.

Supplementary Readings:

1. Ahluwalia, I. J. (1991), *Productivity and Growth in Indian Manufacturing*, Oxford University Press, New Delhi.
2. Devine, P.J., N. Lee, R.M. Jones, W. J. Tyson(1976), *An Introduction to Industrial Economics*, George, Allen and Unwin Ltd., London.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: SWR 405

Course Name: Basics of Research Methodology

Faculty: Mr.Indervir Singh

Credit Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
The course shall help the students to:

- develop an understanding about the scientific approach to human inquiry
- develop an appreciation of the value and approach in research in addressing problems in the field of professional practice
- acquire the skills for research writing

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 per cent attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Counselling, Activities and Tutorials (CAT): 25%
  - i Class Participation: 5%
  - ii Class Test: 10%
  - iii Assignment: 10%

COURSE CONTENT

UNIT-1: (6 hours)

Research in Social Sciences, Qualitative and Quantitative research, Steps in Research Process, Theory and Research, The Meaning of Methodology, The Literature Review

UNIT-2: (6 hours)

The Qualitative and Quantitative Research Design, Qualitative and Quantitative Measurements: Need for Measurement, Measurement Process, Reliability and Valadity; Sampling: Non-probability sampling, Probability sampling

UNIT-3: Quantitative Data Collection and Analysis (8 hours)

Experiment Research: Research Questions Appropriate for an Experiment, Experimental Design logic, Interpreting Experiment results; Survey Research: Research Questions Appropriate for Survey, Construction of Questionnaire; Documents and Secondary Analysis

UNIT-4: Qualitative Data Collection and Analysis (6 hours)

Field Research: Research Questions Appropriate for Field Research, Logic of Field Research, Observing and Collecting data, Ethical Issues in Field Research; Historical-Comparative Research: Research Questions Appropriate for Historical-Comparative Research, Logic of Historical-Comparative Research, Steps in Historical-Comparative Research Issues, Data and Evidence in Historical Context, Ethical Issues; Analysis of Qualitative data.

UNIT-5: Communicating Research Findings (4 hours)

Writing Research Report: The Research Report, The Politics of Social Research, Objectivity and Value Freedom

Prescribed Text Books

1. Neuman, Lawrence W. (2006) *Social Research Methods: Quantitative and Qualitative Approaches, Sixth edition.* New Delhi: Pearson Education.

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Course Code: SAS 405

Course Name: Statistical Methods with Packages

Faculty: Mr.Indervir Singh

Credit Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:
The course shall help the students to:

- understand the basics structure of statistical package.
- handle data sets and analyze it with the help of statistical package.
- apply the understanding of statistical techniques learned in previous courses to use the statistical package.

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 per cent attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%

2. End Term Examination: 50%

3. Counselling, Activities and Tutorials (CAT): 25%

i. Class Participation: 5%
ii. Class Test: 10%
iii. Assignment: 10%

COURSE CONTENT

UNIT-1: **(6 hours)**

Basics of Statistical Package, Qualitative and Quantitative Data, Time Series Data, Data Entry, Importing the data, Labelling Data, Defining Variable Properties, Merging Data Sets.

UNIT-2: **(4 hours)**

Computing Variables, Recoding Variables, Missing Values, Splitting Files, Selecting Cases, Assigning Weight, Sorting Cases.

UNIT-3: **(6 hours)**

Graphical Analysis: Histograms, Scatter Plot, Box-Plot, Line Chats, Pie Chars Descriptive Analysis: Frequencies, Cross Tabulation, Measures of Central Tendency and Dispersion

UNIT-4: **(8 hours)**

Hypothesis Testing: t-test, Chi Square test, ANOVA; Correlation; Regression: Linear Regression, Curve Estimation, Non-Linear Regression, Logistic Regression, Probit Analysis, Tests for Multicollinearity and heteroscedasticity; Non-linear Regression

UNIT-5: **(6 hours)**

Time Series Regression, Autocorrelation, Detection of Unit Root, Correlogram, Augmented Dickey-Fuller Test

The Prescribed Text Book

The Text book shall be prescribed based on the software available for the course. However the students are advised to visit following website for useful material on some of the widely used Statistical Packages.

http://www.ats.ucla.edu/stat/

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: ECN 423

Course Name: International Economics

Faculty: Kamal Singh

Credit Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Familiarize students with basic concepts of international economics
- Enable students understand different principles and theories of international trade
- Enable students understand the impact of different trade policies and their implications towards economic growth
- Enable students analyse issues related to Indian trade both in goods and services

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25 per cent

2. End Term Examination: 50 per cent

3. Counselling, Activities and Tutorials (CAT): 25 per cent

i. Class Participation: 5 per cent
ii. Assignment: 10 per cent
iii. Quiz: 5 per cent
iv. Presentation: 5 per cent
v.

COURSE CONTENT

Unit-I: Introduction and Theories of International Trade (15 Hours)

- International economics as a subject, trade policy , macroeconomic aspects,
- The theory of comparative advantage and gains from trade
- Production functions in International trade
- Comparative advantage in the Heckscher Ohlin trade model
- Commodity and factor prices under trade: Factor Price Equalization
- The gains from trade and the Income Distribution
- Factor reversal and factor prices : empirical testing and Leontief paradox

Unit-II Alternative Theories Of Trade (10 Hours)

- Vent for surplus
- Availability theory
- Monopolistic competition and international trade
- Increasing returns to scale
- Technology, imitation gap and product cycles

Unit-III Tariffs, Economic Integration and Custom Union (10 Hours)

- Theory of Tariffs: Effects of tariffs on balance of payments, terms of trade, national income, consumption, output and income distribution.
- Emergence of and the political economy of Non-tariff barriers
- Regionalism and multilateralism
- Optimum and effective rate of tariffs
- Forms of economic integration: The Theory of customs union.
- Prospects of forming a customs union in developing areas with reference to Asian region.

Unit-IV Balance of Payment and Exchange Rate (15 Hours)

- Concepts and components of balance of payments, dis-equilibrium in the balance of payments
- The process of adjustment in the Balance of Payments under Gold Standard, fixed exchange rate and flexible exchange rate systems.
- Elasticity and absorption approaches to balance of payments.
- Monetary and fiscal measures for adjustment in balance of payments dis-equilibrium
- Monetary approaches to the balance of payments.
- Foreign trade multiplier with and without foreign repercussions.
- Fixed and Flexible exchange rates.

Unit-V International Economic Institutions (10 Hours)

- International Monetary system
- Role of Multinational corporations in developing countries with special reference to India
- International economic institutions; Functions and achievements WTO , IMF ,ADB and SAARC
- Impact of WTO on different sectors of the Indian Economy
- Globalization and Anti Globalization

Text Books

1. Sodersten, B.O. and Geoffrey Reed (3rded.) (1999), International Economics, The Macmillan Press Ltd. London.
2. Paul, R. Krugman& Maurice Obstfeld (2000), International Economics: Theory and Policy (5th ed.), Addison-Wesley, Longman, Pearson Education.
3. Salvatore, D. (1996), International Economics, Prentice Hall, New York

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: ECN 440

Course Name: Evolution of Indian Economic System

Faculty: Mr. Kamal Singh

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- To familiarize students with different aspects of evolution of Indian Economic System
- Understand different policies, their rationale and implications for economic growth

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counseling, Activities and Tutorials (CAT): 25%
   i. Class Participation: 5%
   ii. Assignment: 10%
   iii. Quiz: 5%
   iv. Presentation : 5%

COURSE CONTENT

Unit – I **(8 Hours)**

Capitalism and Underdevelopment of the Indian Economy: British rule and exploitation of India, British rule and India's Underdevelopment. Growth and Structural change 1857-1947: Measuring and explaining change, globalization and pattern of Trade, saving and investment, public finance, balance of payments great depression

Unit – II **(15 Hours)**

Agriculture: Importance, role, nature and cropping pattern; productivity and production trends; green revolution; agriculture finance and marketing; Contract Farming; Farmer distress and suicides; agriculture subsidies and food security in India

Industry Sector: role and importance, Industrial policy of 1948, 1956, 1977 and 1991; Industrial licensing policy — MRTP Act, FERA and FEMA; small and cottage Industries; micro,small and medium enterprises.

Nature, causes and magnitude of poverty, and unemployment and its measurement.

Human resources: Demographic dividend, mobility of population, population policy

Unit – III **(15 Hours)**

Indian money market: components and characteristics; banking sector in India; financial sector reforms

Indian capital market: components and characteristics; SEBI; capital market reforms; Parallel economy and its implications.

Monetary and Financial sector reforms in India

Unit – IV **(12 Hours)**

International Trade Policies: composition and directions of India's foreign trade; factors determining the balance of payment; Disequilibrium in the balance of payment; Causes, consequences and policy measure; exchange rate policy and the convertibility of Rupee.

Unit – V **(10 Hours)**

Planning in India: rationale, objective and evaluation of economic planning; 12th five year plan. Rationale of internal and external reforms; Globalization of Indian economy; W.T.O. and its impact on the different sectors of the economy

Prescribed Text Books:

1. Misra S.K. &V.K.Puri (28th Edition) Indian Economy – Himalaya Publication house Mumbai.
2. Kaushikbasu (ed.) (2004), India's Emerging Economy: Performance and Prospects in the 1990s and Beyond, Oxford University Press, New Delhi
3. Roy. Tirthankar (2011) The Economic History of India 1857-1947 , Oxford University Press, New Delhi.
4. Government of India, Economic Survey (Annual), Ministry of Finance, New Delhi
5. Economic and Political Weekly (Various Issues)

Supplementary Readings:

1. Ahluwalia, I J (Eds.) (1998), India's Economic Reforms & Development (Essays in Honour of Manmohan Singh), Oxford University Press, New Delhi
2. Jalan B (1992), The Indian Economy-Problems and Prospects, Viking, New Delhi Publication, Calcutta.
3. RudraDutt and K.P.M. Sundram (2009), Indian Economy, S. Chand, New Delhi.
4. Dhingra, I. C. (2001), The Indian Economy : Environment and Policy, Sultan Chand & Sons,New Delhi.
5. Rangarajan, C (1998), Indian Economy: Essays on Money and Finance, UBS, New Delhi.
6. Chelliah Raja J. (1996), Towards Sustainable Growth- Essays in Physical and Financial Sector Reforms in India, Oxford University Press, New Delhi.
7. Kaushikbasu (ed.) (2004), India's Emerging Economy: Performance and Prospects in the 1990s and Beyond, Oxford University Press, New Delhi

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Course Code: ECN 415

Course Name: Labour Economics

Faculty: Mr. Kamal Singh

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- To familiarize students with different aspects of Labour and Labour Markets
- Understand theoretical and well as empirical issues relating labour market, wage theories, employment policies , trade unions and collective bargaining in the globalised world

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%

2. End Term Examination: 50%

3. Counseling, Activities and Tutorials (CAT): 25%

   i. Class Participation: 5%
   ii. Assignment: 10%
   iii. Quiz: 5%
   iv. Presentation : 5%

COURSE CONTENT

UNIT I **(8 Hours)**

Nature and characteristics of labour markets; An economic story of the labour market; the actors in the labour market., Labour supply: measurement; workers preferences; budget constraint; the hours of work decision ;labour supply curve; labour supply of women,; retirement , Demand for labour: employment decision in short and long run; long run demand curve for labour; elasticity of substitution; Marshall rules of derived demand, labour market equilibrium.

UNIT II **(15 Hours)**

Compensating wage differentials: market for risky jobs; hedonic wage function; compensating differentials and job amenities, Human capital: education in labour market; present value method; estimating the rate of return to schooling; schooling as a signal; on job training; , Wage structure: earning distribution; eage inequality

UNIT – III **(15 Hours)**

Labour mobility: geographic migration; internal migration; decision to migrate; job turnover; job match; on job training; policy application, labour market discrimination: race and gender; discrimination coefficient; employer discrimination; employee, customer and statistical discrimination; measuring discrimination; policy application

UNIT –IV **(14 Hours)**

Unions and the Labour markets: determination of union membership; monopoly unions; efficient contract; strikes; union wage effects; exit voice hypothesis; Unemployment: frictional and structural unep0mplyment; job search; inter temporal substitution hypothesis; efficiency wages ;implicit contracts; Philip curve.

UNIT – V ` **(8 Hours)**

Employment and unemployment in India: Unemployment — Concept, Types, and Measurement; Analysis of educated unemployment; Employment policy in

Five Year Plans and its evaluation;

Prescribed Text Books:

1) Borjas.J, George.(11th Edition) Labour Economics, Irwin McGraw Hill
2) Ehrenberg, G. Ronald and Smith, S Robert (11th Edition) Modern Labour Economics Theory and Public Policy , Pearson , New Delhi
3) Smith, Stephen. (2nd Edition) Labour Economics, Routledge

Supplementary Readings:

1) Govt. of India: Report of the First and Second National Commission on Labour.
2) Govt. of India: Latest Annual Report of the Ministry of Labour.
3) Susan Horon, Ravi Ranbur and Deepak Mazumdar (ed.): Labour Market in an Era of Adjustment, Vol. 1, World Bank publication.

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: ECN 407

Course Name: Indian Economic Environment

Faculty: Mr. Kamal Singh

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective:

After completing this course the students will be able to**:**

1. Acquaint with knowledge of Indian Economic Environment.
2. Understand the various issues pertaining to Indian economy and its economic environment.
3. Identify social, political and economic factors in the Indian Economy with reference to the global economy.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- Mid Term Examination: 25%
- End Term Examination: 50%
- Counselling, Activities and Tutorials (CAT): 25%
    i. Subjective Assignment: 10 %
    ii. Quizzes/Games/Puzzles: 10%
    iii. Personality Assessment: 5 %

COURSE CONTENT

UNIT I **(3 hours)**

Colonialism and underdevelopment of Indian Economy: Condition of Indian Economy pre British and during British rule; nature of Indian Economy; structure of Indian economy; broad Demographic Features: population size and growth rates; census 2011.

UNIT II **(7hours)**

Indian Agriculture: Role and nature; agricultural production and productivity trends; green revolution; food security; Industrial policies of India – New industrial policy: Objectives and appraisal – Reforms and liberalization of the Indian economy

UNIT III **(3 hours)**

Money and Banking: Indian Money market: structure and characteristics of Indian money market; banking In India: nationalisation of banks; banking structure in India; banking sector reforms; RBI; capital market: structure and role of capital market in India's Industrial growth

UNIT IV **(3 hours)**

Indian Tax structure; Indian Fiscal policy: objectives and Fiscal federalism; Planning in India: Rationale and genesis of planning in India; various five year plans in India

UNIT V **(4hours)**

Indian Foreign Trade: value; composition and direction; India's foreign exchange rate policy and concept of convertibility of Indian rupee; FERA and FEMA; Globalisation: Concept and meaning; effects and critical appraisal of globalisation; Economic institutions – International Monetary Fund (IMF) and World Trade Organisation

Prescribed Text Books:

1. Misra S.K. &Puri V.K. Indian Economy, Himalaya Publishing House, Mumbai
2. Sundharam K.P.M. and DattRuddar (2001) Indian Economy, S. Chand & Sons, New Delhi

Supplementary Reading

1. Kaushikbasu (ed.) (2004), India's Emerging Economy: Performance and Prospects in the 1990s and Beyond, Oxford University Press, New Delhi
2. Dhingra, I. C. (2001), The Indian Economy : Environment and Policy, Sultan Chand & Sons,New Delhi.

CENTRAL UNIVERSITY OF HIMACHAL PRADESH

[Established under the Central Universities Act 2009]
PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: ECN 445

Course Name: Basic Terms and Concepts in Economics

Credit Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objective:

- To enable students understand the commonly used economic basic concepts and terms.

Attendance Requirements:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75 per cent attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counselling, Activities and Tutorials (CAT): 25%
   i. Class Participation and Attendance: 5%
   ii. Assignment: 10%
   iii. Presentation : 5%
   iv. Quiz/ Class Test: 5%

Course Content

Unit I

Microeconomics:

Meaning of Economics; Scarcity and Choice; Positive Economics; Normative Economics; Utility: Cardinal utility, Ordinal utility, Rationality; Trade-off; Demand; Supply; Equilibrium Price; Elasticity; Consumer surplus; producer surplus; Dead weight loss; Opportunity Cost; Sunk Costs; Long run; Short run; Fixed and Variable Costs; Capital widening, Capital deepening; Technology; Production Possibility frontier; Price Controls; Licences; Marginal analysis; Competitive market: Perfect competition, Monopoly, Monopolistic completion, Price discrimination; Efficiency; Pareto optimality; Efficient Markets hypothesis.

Unit II

Macroeconomics:

National Accounts: Value added, Gross Domestic Product (GDP), Net Domestic Product (NDP), Gross National Product (GNP), Net National Product (NNP), GDP Per Capita, Disposable Income;

Real Changes: Real Income, Real Wage, Real Interest Rate; Stock; Flow; Full Employment; Frictional Unemployment, Structural Unemployment; Labour force; Economic Growth; Saving, Investment, Capital and Capital formation; Business Cycle: Depression, Recession, Expansion; Price Stability: Inflation, Deflation; Market-Clearing; Aggregate Price Level: Price Index, Consumer Price Index, Producer Price Index, Inflation Rate, GDP Deflator; Effective demand; Marginal Efficiency of Capital; Natural Rate of Unemployment.

Unit III

Public Finance and Monetary Economics:

Taxation: incidence, Proportional tax, Progressive tax, Regressive tax; Laffer curve; Tax Base, Tax buoyancy; Tax elasticity; Tax incidence; Goods and Service tax (GST); Budget: Revenue receipts, Capital receipts, Revenue expenditure, Capital expenditure; Deficit: Budget deficit, revenue deficit, Fiscal deficit, Primary deficit. Money; Money and Interest Rate; Supply of Money: Basics of money supply, creation of money; Money multiplier process; Definitions of interest rate; Stabilization Policies: Fiscal Policy, Monetary policy.

Unit IV

Banking and International Trade:

Risk Management in Banks: Basel Norms, Capital Adequacy Ratio, Asset Liability Management, and Interest rate risk; Operational Risk management in global banks; Reserve Bank of India: Instruments of RBI (bank rate, repo rate, reverse repo rate, open market operation, discount rates, reserve requirement), Targets and goals of RBI; Shares and debentures; Stock market index: SENSEX; Nifty.

Gains from Trade: Absolute Advantage, Comparative Advantage, Specialization; Purchasing Power Parity (PPP); Nominal Exchange rate; Real exchange rate; Balance of payments; Current account deficit; Capital account deficit; Current account convertibility; Capital account convertibility, WTO.

Unit V

Public Economics and Development Economics:

Market failure: imperfections, decreasing costs, externalities; Information asymmetry, Theory of second best; Public goods and market failure, Free rider problem; Public goods-pure and impure public goods; Club goods; Private good; Merit goods; Property rights. The Coase theorem; Carbon Trading; Polluter pay principal.

Meaning of Development; Absolute poverty; Relative poverty; Human Development Index (HDI); Trickledown effect; Inclusive growth; Planned economy; Market economy; Mixed economy; Liberalization; Convergence; Planning; Cost benefit analysis; Present value of future earnings; Rate of discount;

Prescribed Text Books:

1. Samuelson, P.A. and W.D. Nordhaus (2010). *Economics, 10th Edition*, New Delhi: Tata McGraw-Hill.
2. Black, John, Nigar Hashimzade, Gareth Myles (eds.) (2012). *Oxford Dictionary of Economics 4th Edition*. New Delhi: Oxford University Press.
3. Gupta, Suraj B. (1982). *Monetary Economics- Institutions, Theory and Policy. New Delhi:* S. Chand Publishers.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: ECN 406
Course Name: Basics of Macroeconomics
Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 5 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives:

- Familiarize students with the basic concepts of Macroeconomics
- Enable the students to understand the functioning of the macro economy
- Developing critical skills to understand the implications of macroeconomic policies

Attendance Requirements:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. Mid Term Examination: 25%
2. End Term Examination: 50%
3. Counselling, Activities and Tutorials (CAT): 25%
   i. Class Participation: 5%
   ii. Assignment: 5%
   iii. Quiz: 5%
   iv. Presentation : 10 %

Course Content:

UNIT – I **(4 Hours)**
Meaning, scope and importance of macro Economics, Schools of thought in macro economics, Concepts of gross domestic product, GNP and national income; Circular flow of income in two, three and four-sector economy; Measurement of national income; India's national income accounts

UNIT – II **(7 Hours)**

Say's law of markets and the classical theory of employment, Keynes' objection to the classical theory; Keynesian theory of income, output and employment; Aggregate demand and aggregate supply functions; The principle of effective demand; Consumption function — average and marginal propensities to consume, factors influencing consumption spending, Keynes Psychological law of consumption, Post Keynesian theories of consumption: relative and permanent income hypotheses

UNIT – III **(7 Hours)**

Investment: autonomous and induced investment; Marginal efficiency of capital, Theories of Investment: classical, Keynesian and accelerator theory, Multiplier: investment, budget and tax; IS and LM curves: derivation, shifts and rotations, simultaneous equilibrium in product market and money market.

UNIT – IV **(6 Hours)**

Money — meaning, functions and classification, Demand for money: quantity theory of money, fischer equation and cambridge equation ; Keynes' approach: transaction, precautionary and speculative demand for money, Friedman's restatement of quantity theory of money, Money Supply: meaning and measures M1, M2, M3, M4; Credit creation and credit control by banks and Money multiplier.

UNIT –V **(6 Hours)**

Inflation: meaning, types and effects; Demand pull and cost push theories of inflation; Trade off between inflation and unemployment – Phillips curve, Macroeconomic policies: objectives and Instruments.

Prescribed Text Books:

1. Shapiro, Edward (2001), Macroeconomic Analysis Fifth Edition, Galgotia Publication, New Delhi.
2. Dornbusch, R. and S. Fischer (2005), Macroeconomics, 4e, McGraw-Hill Kogakusha Tokyo.
3. Blanchard, Oliver (2007), Macroeconomics, Pearson Education, New Delhi

Supplementary Readings:

1. Patinkin, Don (1965), Money, Interest and Prices, Harper and Row, New York.
2. Rakshit, M. (1998), Studies in Macroeconomics in Developing Countries, Oxford University Press, New Delhi
3. Andrew B. Abel, Ben S. Bernanke and Dean Croushore (2011), Macroeconomics, Indian Edition, Pearson
4. Gupta B. Suraj, Monetary Economics- Institutions, Theory and Policy, S.Chand & Company Ltd, New Delhi

School of Tourism, Travel & Hospitality Management

Department of Tourism & Travel Management

School of Tourism, Travel & Hospitality Management

Name of the Department: **Department of Tourism and Travel Management**

Name of the Programme of Study: **MBA (Travel and Tourism)**

Courses for Semester 1

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	TTM 403	Travel and Tourism Principles and Practices	2	NA	Dr. Suman Sharma
2.	TTM 422	Geography of Tourism	2	NA	Dr. Suman Sharma
3	TTM 422	Introduction to Hotel Management	2	NA	Mr. Debasis Sahoo
4	TTM 436	Housekeeping in Hospitality Operations	4	NA	Mr. Debasis Sahoo
5	TTM 410	Event Management	2	NA	Mr. Arun Bhatia
6	TTM 407	Introduction To Tourism Marketing	2	NA	Mr. Arun Bhatia
7	TTM 420	Emerging trends and avenues in tourism industry	2	NA	Dr. S.Sundararaman
8	TTM 427	Managerial Economics for Tourism	2	NA	Dr. S.Sundararaman
9	TTM 426	Practical Tourism - Field Study Tour of identified circuits of India and Abroad - Viva Voice	2	NA	All Faculty of the Department

Courses for Semester 3

Sr. No	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1.	TTM 525	Geography of Tourism - II	4	NA	Dr. Suman Sharma
2.	TTM 509	Airline Ticketing and Cargo Management	2	NA	Dr. Suman Sharma
3	TTM 409	Itinerary Preparation and Costing	2	NA	Dr. Suman Sharma
4	TTM 437	Front Office Operations in Hotels	4	NA	Mr. Debasis Sahoo
5	TTM 510	Resort Management	2	NA	Mr. Debasis Sahoo
6	TTM 438	Food & Beverage Service	4	NA	Mr. Debasis Sahoo
7	TTM 515	Sales Marketing and PR in service Industry	2	NA	Mr. Arun Bhatia
8	TTM 529	Sales Promotion and Public Relations In Tourism	2	NA	Mr. Arun Bhatia
9	TTM 539	Services Quality management in Tourism and Hospitality	2	NA	Mr. Arun Bhatia
10	TTM 503	Quantitative Techniques for Travel and Tourism	2	NA	Dr.S.Sundararaman
11	TTM 522	Strategic Management for Travel and Tourism	2	NA	Dr.S.Sundararaman
12	TTM 533	Economics of tourism	2	NA	Dr.S.Sundararaman
13	TTM 434	Student development program(Adventure group tour)	2	TTM450	All Faculty of the Department

University Wide Courses

Sr. No.	Course Code	Course Name	Credits	Code No. of Pre-requisitie/ Co-requisites if any	Teacher
1	TTM 410	Event Management	2	NA	Mr. Arun Bhatia
2	TTM 510	Resort Management	2	NA	Mr. Debasis Sahoo
3	TTM 407	Introduction To Tourism Marketing	2	NA	Mr. Arun Bhatia
4	TTM 522	Strategic Management for Travel and Tourism	2	NA	Dr.S.Sundararaman
5	TTM 515	Sales Marketing and PR in service Industry	2	NA	Mr. Arun Bhatia
6	TTM 529	Sales Promotion and Public Relations In Tourism	2	NA	Mr. Arun Bhatia
7	TTM 429	Security, Rescue and Disaster management	2	NA	Dr.S.Sundararaman

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Course Code: **TTM-423**

Course Name: **GEOGRAPHY OF TOURISM**

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- Introduce students to the Concept of Geography.
- The students should understand the various regions of the world.
- To clarify the Role of the Geography in Tourism to the students.

Attendance Requirement:
Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10%
    - Assignments: 5%

Course Contents:

UNIT - I: Introduction-Tourism Geography **(3 Hours)**

- Definition ,Scope and Contents of Geography,Importance of Geography in Tourism,Typology of Tourism,Patterns & linkages in Tourism Geography,Market, Destinations, models in Tourism Geography,(Lepier model ,Gravity Model, push & pull theory) TGR, TTR, TDR

- IATA traffic conference areas.
- Interpretation of Tourist flow in different regions of the world

<u>UNIT - II:</u> Understanding the geographical location of Tourist Destinations in Europe & **America** **(4 Hours)**

- Reasons for Europe being the top continents in terms of Tourist arrivals & receipts
- Understanding UK, BENELUX, SCANDINAVIAN, EU, SCHENGEN Nations etc.,Understanding physical features of EUROPE through Atlas (Rivers, mountains, beaches, deserts, heritage site etc.)
- Understanding NEW ENGLAND REGION, NORTH AMERICA, CENTRAL AMERICA, SOUTH AMERICA, REGION OF GREAT LAKES, Latin America Etc.
- Understanding physical features of America through Atlas (Rivers, mountains, beaches, deserts, heritage site etc.)

<u>UNIT – III:</u> Understanding the geographical location of Tourist Destinations in Africa **(4 Hours)**

- Understanding HORN OF AFRICA.
- Understanding physical features of AFRICA through Atlas (Rivers, mountains, beaches, deserts, heritage site etc.)

<u>UNIT - IV:</u> Understanding the geographical location of Tourist Destinations in Australasia **(4 Hours)**

- Understanding Australia & New Zealand.
- Understanding physical features of AUSTRALASIA through Atlas
- (Rivers, mountains, beaches, deserts, heritage site etc.)

<u>UNIT – V</u>: Understanding the geographical location of Tourist Destinations in Asia. **(3 Hours)**

- Understanding Asia, SAARC, ASEAN, EAST ASIA.
- Understanding physical features of ASIA through Atlas (Rivers, mountains, beaches, deserts, heritage site etc.)

Prescribed Text Books:

1. Brian Boniface and Chris Cooper (**2009**), **Worldwide Destinations - Casebook**, **The geography of travel and tourism,** Elsevier Butterworth-Heinemann, Oxford.
2. Brian G. Boniface and Chris Cooper (**2009**), **worldwide Destinations, The geography of travel and tourism,** Elsevier Butterworth-Heinemann, Oxford.
3. Orient Longman -World Altas.

Suggested Additional Readings:

1. Oxford atlas
2. Geography of Travel & Tourism,Lloyd E. Hudman ,(Author), Richard H Jackson (Author), Publisher: Delmar Pub
3. Understanding and Managing Tourism Impacts: An Integrated Approach (Contemporary Geographies of Leisure, Tourism and Mobility),C. Michael Hall (Author), Alan A. Lew Publisher: Routledge; 1 edition (August 20, 2009)
4. New Concise World Atlas,Keith Lye (Author), Stefan Chabluk,Publisher: Oxford University Press, USA; 2 edition (February 5, 2007)

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTM422

Course Name: Introduction to Hotel Management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To make student aware of the evolution and growth of hotel industry across the world.
- To bring about an understanding of Hotel industry in India.
- To make student understand the basic concept of a Hotel and its operational departments.
- To make student familiar with the various sections and areas of rooms division and their day to day activities.
- To clarify the role of Food & Beverage department in contributing to the hotel revenue as well as guest satisfaction.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10 %
    - Assignments: 5%

Course Contents:

UNIT - I: Origin and evolution of HOTEL INDUSTRY (3Hours)

- Origin & evolution of accommodation units & Hotels.
- History & development of Hotel industry in India.
- Principles, concepts and objectives of a hotel.
- Types of Hotels, Classification of Hotels/star categorization
- Various departments/divisions of a hotel & Organization chart.

UNIT - II: Front Office Management (4 Hours)

- Various areas of Front office department & their functions.
- Lay out of front office department & allied units.
- Organization chart & role of front office manager & Personnel.
- The front office activities & guest activities in a hotel.
- International Symbols: Travel symbols or signs, Room Tariffs, Plans etc.

UNIT - III: Accommodation operation in Hotels (5 Hours)

- Role of housekeeping in Hospitality operation
- Types of rooms and accommodations.
- Sketch diagrams of rooms & suites. Various areas of a hotel: Public areas and back areas.
- Organization chart & Functions & duties of housekeeping staff members.
- Lay out of HK department & Floor pantry. Abbreviations used for room's status.
- Tools of the trade: tools & equipments used in housekeeping

UNIT - IV: Food & Beverage Service Management (4 Hours)

- Types of catering establishments and their functions.
- Organization chart & role of F&B manager & staff members.
- Types of Menus & factors to be considered while planning a menu
- Various courses of Menu (French classical).
- Types of meals & types of service.
- Food &Beverage service outlets in Hotels and their operation techniques.

UNIT – V: Food Production Operation (2 Hours)

- Kitchen Organization chart & role of executive chef and various kitchen personnel.
- Lay out of the food production department displaying its various sections.
- Small tools and Equipments used in kitchen
- Common Indian and International Menus followed in Hotels.

UNIT - VI: Non-Operational Departments (Miscellaneous) (2 Hours)

- Brief discussion of various departments like Sales & Marketing, Engineering & maintenance, Public relation & HR etc.

Prescribed Text Books:

1. Professional Hotel Management: Jagmohan Negi; S. Chand Co., New Delhi.
2. Hotel Housekeeping Operations and Management: Raghubalan; Oxford University Press India.

Suggested Additional Readings:

1. Hotel & motel management operation: Gray and Ligouri; PHI, New Delhi, 2000.
2. Managing front office operations: Michael L. Kasavana, Richard M. Brooks
3. Hotel Front Office Training Manual: Sudheer Andrews
4. Front Office Management- S.K. Bhatnagar
5. Hotel, Hostel and Hospital Housekeeping: JC Branson, M.Lennox, Edward Arnold Publication.
6. Text book of hotel Housekeeping-Sudheer Andrews
7. Food & Beverage service : Lilicrap Cousings
8. Food production operation: P.S. Bali; Oxford publication
9. Theory of cookery : Krishna Arora
10. Professional Cooking : Wayne Gissslein

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Course Code: TTM403

Course Name: Travel and Tourism principles and practices

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organized classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- This course shall introduce learner to tourism's growth and development.
- The course also highlights the role of tourism as an economic intervention and its significance in economy
- Course discusses the global nature of tourism, tourism product and emerging trends in tourism industry.
- It is also important to appreciate the future of tourism.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10%
    - Assignments: 5%

Course Contents:

UNIT - I: Introduction to Travel & Tourism (5 Hours)

- Tourism; an overview: Elements, Nature and Characteristics
- Typology of Tourism – Classification of Tourists
- Tourism network - Interdisciplinary approaches to tourism
- Historical Development of Tourism - Major motivations and deterrents to travel.

UNIT - II: Historical Perspective of Tourism & Travel motivations (4 Hours)

- Tourism Industry; Structure and Components:
- Attractions – Accommodation – Activities – Transportation - F&B – Shopping – Entertainment
- Infrastructure and Hospitality – Emerging areas of tourism - Rural, Eco, Medical, MICE, Literary, Indigenous, Wellness, Film, Golf, etc.,
- Ideals of Responsible Tourism - Alternate Tourism - Case Studies on International Tourism.

UNIT – III: Measurement of Tourism (3 Hours)

- Tourist Transportation:
- Air transportation: The airline industry present policies, practices. Functioning of Indian carriers. Air Corporation Act, Air charters.
- Surface Transport: Rent-a-car Scheme and coach-Bus Tour, Transport & Insurance documents, All-India Permits
- Rail Transport: Major Railway Systems of World, (Euro Rail and Amtrak)
- General information about Indian Railways, Types of rail tours in India:, Palace-on-Wheels and Royal Orient, Deccan Odyssey, Toy Trains etc. Indrail Pass.
- Water Transport: Historical past, cruise ships, ferries, hovercrafts, river and canal boats, Fly-cruise.

UNIT - IV:Structure of Tourism Industry & Public sector Organizations (4 Hours)

- Tourism Organizations: Role and Functions of World Tourism Organization (WTO)
- Pacific Asia Travel Association(PATA)
- World Tourism &Travel Council (WTTC) - Ministry of Tourism, Govt. of India
- ITDC, Department of Tourism, Govt. of Himachal Pradesh.
- FHRAI, IHA, IATA, TAAI, IATO.

UNIT – V Tourism planning & Environment (4 Hours)

- Tourism Impacts - Tourism Area Life Cycle (TALC) - Doxey's Index - Demonstration Effect – Push and Pull Theory
- Tourism System - Mathieson and Wall Model & Leiper's Model - Stanley Plog's Model of Destination Preferences - Demand and Supply in tourism
- Tourism regulations - Present trends in Domestic and Global tourism – MNC's in Tourism Industry.

Prescribed Text Books:

1. Annual Report (2010-11), Ministry of Tourism, Government of India, New Delhi.
2. Burkart A.J., Medlik S. (1974), Tourism - Past, Present and Future, Heinemann, London.
3. Chuck Y. Gee, James C. Makens & Dexter J. L. Choy (1989), The Travel Industry, Van Nostrand Reinhold, New York.
4. Ghosh Bishwanath (2000), Tourism and Travel Management, Vikas Publishing House, New Delhi.
5. Holloway, J. C. (1994), The Business of tourism, Pitman Publishing, London.
6. Medlik, S. (1997), Understanding tourism, Butterworth Hinemann, Oxford.
7. Michael M. Coltman (1989), Introduction to Travel and Tourism- An International Approach, Van Nostrand Reinhold, New York.
8. Page J. Stephen & Brunt Paul (2007), Tourism- A Modern Synthesis, Thomson Publishers, London.
9. Ray Youell (1998), Tourism-an introduction, Addison Wesley Longman, Essex.
10. Sunetra Roday et al (2009),Tourism Operations and Management, Oxford University Press

Suggested Additional Readings:

1. Successful tourism management volume-II, Tourism Practices-Pran Nath Seth, sterling publishers
2. Successful tourism management volume-II,Tourism Practices-Pran Nath Seth, sterling publishers
3. Tourism The Business Of Travel,3/ed - Roy A. Cook, Laura J. Yale, Joseph J. Marqua, Pearson (2007)

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Course Code: TTM 420

Course Name: Emerging trends and avenues in tourism industry

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

Help the learners to understand about the Emerging trends in Tourism Industry

Help students to concentrate on core areas of Tourism, scope for further development

Empower students to plan their own tourism business venture in future

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

Mid Term Examination: 25%

End Term Examination: 50%

Continuous Internal Assessment: 25%

Assignment 1: 10 %

Assignment 2: 10 %

Class Test: 5%

Course Contents

Unit 1: New Tourism Products

- Cruise Tourism
- Ocean Cruise
- River Cruise
- Adventure Tourism
- Wildlife Tourism
- Medical and Wellness Tourism
- Exhibition Centres
- Film Tourism

Unit 2:Emerging Trends in Tourism

- Sports Event Based Tourism
- Weekend Tourism
- Tourism for the purpose of imparting knowledge to Kids and Children's
- Tourism for the purpose of shopping

Unit 3: Understanding the Economic Impacts of Emerging Trends in Tourism

- Economic impacts of tourism (Positive & Negative impacts)
- Income and employment
- Multipliers of Tourism
- Balance of payments
- Economic Impact Analysis
- Steps for conducting Tourism Impact Study

Unit 4: Understanding the Demand and Supply side of Emerging Tourism Trends

- Psychology of Tourists
- Tourism Market
- Positioning and Marketing of Destinations and Venues
- Understanding Artificial Adventure Environment

Unit 5: Avenues for Tourism Professionals

- Tourism Business Consultants
- Travel Consultants
- Tourism Project managers
- Tourism Entrepreneurs
- Tourism Research Specialists
- E Tourism Engineers

Prescribed Text Books

1. Successful Tourism Management Vol. 1 and Vol.2, Pran Nath Seth, Sterling Publishers Pvt Ltd, ISBN 978-81-207-3199-8, New Delhi.
2. Adventure Tourism The New Frontier, 2003, John Swarbrooke, Colin Beard, Suzanne Leckie, Gill Pomfret, Routledge, ISBN -10: 978-0-7506-5186-8, New York
3. Travel Tourism and Hospitality Research, A Handbook for Managers and Researchers, 1994, Second Edition, edtd by J R Brent Ritchie, Charles R Goeldner, John Wiley and Sons, New York
4. *Tourism through a lence: image building of Indian Tourism practices through films*, R. Abilash, International Journal of Research In Management & Social Science, Volume 2 , Issue 1 (II) : January - March 2014

Managerial Economics for Tourism

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTM 427

Course Name: Managerial Economics for Tourism

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Assignment 1: 10 %
    - Assignment 2: 10 %
    - Class Test: 5%

Course Contents

UNIT 1: Introduction to Managerial Economics

- What is Economics?
- The Scope of Economics
- The Basic problem of an Economy
- Meaning and Nature of Managerial Economics
- How Economics contributes to Managerial Functions
- Areas of Economics useful for Business Decisions
- Understanding Managerial Economics

UNIT – II: Economics Principles and Business Decision Makings

- Marginalism and Instrumentalism
- The Equi-Marginal Principle
- Time perspective in Business Decisions

- Opportunity Cost
- The Concept of Present value Money and Discounting Principle
- Concept of Externalities
- Concept of Trade - Off

UNIT - III: Fundamentals Laws of Market

- The law of Demand
- Price- Demand Relationship
- The Demand Functions
- Types of Demands
- The Law of Supply
- Equilibrium of Demand and Supply
- Determination of Equilibrium Price
- Why Tourism Demand to be Studied Separately
- Fundamentals of Tourism Demand
- Understanding of Tourism Demand
- Factors Responsible for Affecting Tourism Demand at Destinations

UNIT IV: Market Structure and Objectives of Business Firms

- Objectives of Business Firms
- Profit Maximization
- Alternative Objectives of Business Firms

UNIT V: Managing Demand and Capacity

- The Underlying Issues: Lack of Inventory Capability
- Capacity Constraints
- Demand Pattern
- Strategies for Matching Capacity and Demands
- Yield Management

UNIT VI: Strategic Financial Management

- Meaning of Strategic Financial Management
- Definition of Strategic Financial Management
- Characteristics of Strategic Financial Management
- Scope of Strategic Financial Management
- Importance of Strategic Financial Management
- Success Factors of Strategic Financial Management
- Constraints to Strategic Financial Management

1. trategic Financial Management, 2011, Rajini Sofat and Preeti Hiro, PHI Learning Private Limited, New Delhi 110 011, ISBN: 978-81-203-4341-2
2. The Economics of Tourism (1997), M. Thea Sinclair and Mike Stabler, Routledge, London, ISBN: 0-415-08523-3
3. Services Marketing 5th Edition, Valarie A Zeithaml, Mary Jo Bitner, Dwanye D Gremler, Ajay Pandit, Tata Mc Graw Hill Edu Pvt Ltd, ISBN 13: 978-0-07-070099-4
4. Economic Dimension of Tourism (1998), R. K. Malhotra, Anmol Publications Pvt Ltd, New Delhi, ISBN 81-7488-703-2

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTM 407

Course Name: Introduction to Tourism Marketing

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To make student understand the basic concepts of Strategic Management in Tourism.
- To create awareness of Strategic Management in Indian Context and to make student familiar with the concepts of Strategy.
- To make student understand the role of Strategy can play in promoting the products in the service industry.
- To clarify Environmental Scanning, Strategy Formulation, Strategy Implementation and Evaluation and control

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
    - **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10 %
    - Assignments: 5%

Course Contents:

UNIT - I: INTRODUCTION TO TOURISM MARKETING (5Hours)

- Introduction to Tourism Marketing, The concept of Services Marketing.
- Nature of Tourism Services, Reasons for the Growth of Tourism Services.
- Meaning of Tourism Market; Retailer; Wholesaler in Travel Trade.
- Managing the Tourism Services / Distinctive Features of Tourism Product; the Tourism Marketing Mix. Management of Three Additional P's of Tourism Marketing Mix.
- Strategic Issues in Marketing of Services, Innovations in Services Marketing.
- The Customer Gap, The Provider Gaps, Putting it all Together: Closing the Gaps.

UNIT - II: GLOBAL PERSPECTIVE OF TOURISM MARKETING (4 Hours)

- Tourism marketing at different levels of Economic Development.
- Significance of Tourism Marketing for National Economy.
- Marketing of Tourism Products at national and International Level events with relation to travel Trade Fairs like Satte; WTM; ITB Berlin; ITB Asia; Eibtm.
- Case Study of Honk Kong Disneyland, Timeshare – Well worth Buying and Enjoying

UNIT - III: MANAGERIAL ASPECTS OF TOURISM SERVICE SECTOR (4 Hours)

- The Purchase Process of Tourism Services – Consumption Values, A purchase Model of Tourism Services, Pre Purchase Phase, The Service Encounter and Post Purchase Phase.
- Marketing of P's and C's in Travel Trade.
- Tourism Relationship Marketing, Managing Customer Emotions, Relationship Marketing in Consumer Segment vs Service Segment, Service Level Agreements (SLA).

UNIT - IV: MANAGING HUMAN ELEMENT AND QUALITY ASPECTS (4 Hours)

- Importance and Role of Human element in Tourism Marketing , Building the Right Mind set – Developing Service Culture
- Tourism Service Quality; Definition of Quality; Service Encounters and Service Recovery.
- Determinants of Tourism Service Quality, Gaps Model of Tourism Service Quality.
- Bridging the Service Quality Gaps, The Reason for Gaps in Services, Managing to close the Service Quality Gaps, The concept of Total Quality Management (TQM).

UNIT – V: MARKETING TOURISM, TRAVEL, TRANSPORT AND HOSPITALITY SERVICES

(3 Hours)

- The concept of Travel and Transport, Customer Profile of Travel and Transport Services, Derived Demand
- Managing Marketing Mix for Tourism and Hospitality.
- Best Practices in Tourism Marketing.
- Case Study: Indore City Transport Service Limited.

Prescribed Text Books:

1. The Tourism Concepts and Practices; John R Walker Joweilyn T Walker Pearson.
2. Services Marketing, 2e Kenneth E Clow and David L Kuntz
3. Services Marketing – Concepts and Practices – Ramneek Kapoor, Justin Paul, Biplab Halder
4. Customer Relationship Management – Urvashi Makkar and Harinder Kumar Makkar
5. Marketing Management – Arun Kumar and N Meenakshi
6. Services Marketing – Valarie Zithami , Mary Jo Bitner, Dwayne D Gremler , Ajay Pandit
7. The business of Tourism Concepts and Strategies; A K Bhatia; Sterling Publishers.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code: TTM410

Course Name: Event Management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To introduce students with elements of the Event Management.
- To make student realize that event planning & management has an extremely positive future.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 5%
    - Attendance:5%
    - Assignments: 5 %

Course Contents:

UNIT - I: **The Introduction** **(4 Hours)**

- **Event & categorization based on size ,types of events**
- **Fairs & festivals organised in India**
- **Concept & Design**
- **Feasibility of the event**
- **Legal compliance**

UNIT - II: **Event Marketing, Promotion & financial management** **(4 Hours)**

- **Process of event Marketing, Marketing –Mix & Sponsorship**
- **Elements of Promotion-Image branding/Advertising/publicity/PR.**
- **Financial Management-budget/Break even point/cash flow analysis etc.**

UNIT - III: **Event Planning/protocol & staging** **(4 Hours)**

- Aims & objectives of an event, Planning Tools-Gantt charts, Run sheets.
- **Protocols for events**
- **Staging –event venue, theme, rehearsals, services.**

UNIT - IV: **Event staffing & management** **(4 Hours)**

- **Developing organisation charts, job descriptions, recruitment & training**
- **Leadership skills, team management, group development & time management**
- Logistics ,Performance standards, functional areas

UNIT - V **Risk Management, Security, Monitoring & Control systems** **(4 Hours)**

- Risk management-related to natural, technology, legal, safety & security risk, occupational safety, crowd management & evacuation.
- Risk management process & standards for risk management.
- Monitoring control & evaluation.

Prescribed Text Books:

1. Lynn Van Der Wagen & Brenda R.Carlos (2011).Event Management-Pearson publishers
2. Meetings, Expositions, Events & Conventions: An Introduction to the Industry: International Edition, 3/E, George G. Fenich –Pearson Publishers
3. Event Management: A Professional and Development Approach by ASHUTOSH CHATURVEDI, Global India Publications.
4. Events Feasibility and Development By William O'Toole Published 14th December 2010 by Routledge.

Suggested Additional Readings:

1. Event Management: A Professional And Developmental Approach By Greg Damster, Dimitri Tassiopoulos, Peter de Tolly, Wren Dry, Jurgen Gasche, Debbie Johnson, John Knocker
2. Event Tourism Edited by Stephen J. Page, Joanne Connell, Published 29th October 2009 by Routledge.
3. Events Management by Glenn Bowdin, butterworth-heinemann publication, an imprint of Elsevier.

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Course Code: TTM525

Course Name: **Tourism Geography II**

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to -

- Geography is the basic edifice of tourism.
- The knowledge of geography shall give an extra edge to the students in designing the itineraries for the travellers,
- Suggesting them various destinations to the clients for their travel etc.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. **Mid Term Examination: 25%**
2. **End Term Examination: 50%**
3. **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10 %
    - Assignments: 5%

Course Contents:

UNIT - I: Importance of geography in Tourism (8 Hours)

- Importance of geography in Tourism: Latitude, longitude, international date time.
- Times zone. Time differences, GMT variations.
- Major landforms as tourist resources
- Elements of weather and climate.
- Climatic regions of the world in brief.
- Impact of weather and climate on tourists and destinations.
- Map Reading and Practical Exercise.

UNIT - II: Contemporary trends in international tourist movements(6 Hours)

- Factors affecting global and regional tourist movements
- Demand and origin factors, destinations and resource factors.
- Contemporary trends in international tourist movements

UNIT - III:Aviation Geography (8 Hours)

- Aviation Geography
- IATA Traffic conferences
- Important tourist circuits and popular Itineraries of Malaysia, Singapore, Thailand, Japan

UNIT - IV: Important tourist circuits and popular Itineraries (10 Hours)

- Important tourist circuits
- Popular Itineraries of European countries like Germany, Italy, Spain, Russia and Switzerland

UNIT - V Itinerary Preparation (8 Hours)

- Itineraries of selected countries like China, UAE, Turkey, Jordon, Egypt, Maldives, Indonesia, Mauritius, south Korea, Philippines, Cambodia, Vietnam.

Prescribed Text Books:

1. Boniface, B.G. and Chris Cooper, *The Geography of travel and Tourism* Oxford*:* Butterworth Heinemann.
2. Hall C.M. and Stephen, J. Page, *The Geography of tourism and recreation. Environment, place & space,* London: Routledge.
3. Pearce Douglas, *Tourism Today: A Geographical Analysis;* New York:Longman.
4. Singh R.L., *India- A Regional Geography*, Varanasi: National Geographical Society of India
5. Seth P.N., *Successful Tourism Management*, Sterling Publisher: New Delhi

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: TTM 533

Course Name: Economics of Tourism

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: It is a well known fact that tourism operates within a complex and interwoven social, ecological and economic system. Understanding the economics of tourism will help the tourism students in gaining the ideas to run the business successfully amidst slowdown and recession. It will help the students in gaining adequate expertise about the present situation and future economic problems. Course is designed exclusively to inculcate flexibility in approaches to run the tourism business in cost effective manner even when the economic situations are not conducive to create profits

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. **Mid Term Examination: 25%**
2. **End Term Examination: 50%**
3. **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10 %
    - Assignments: 5%

Course Contents

UNIT 1: Economic Systems

- Allocation of Resources
- Economic Goals
- Economics Systems
- Circular Flow Model

UNIT – II: Measuring the Economy

- Unemployment
- Inflation
- GDP
- Business Cycles
- Competitive Environment

UNIT III: International Trade

- Foreign Exchange Rate
- Foreign Exchange Market
- BOP
- Barriers to Trade
- Free Trade Vs Protectionism

UNIT IV:Understandings the Micro Foundations of Tourism Demand

- Demand for Tourism Relative to Other Goods and Services
- Tourists Destination as Complements
- Tourist Destination as Substitutes
- Effect of a Rise in Income on Tourism Consumptions
- Effect of a Fall in Income on Tourism Consumptions
- Effect of fall in Price and Rise in Income on Tourism Consumption
- Tourism Demand over Time
- Social Context of Tourism Decision Making

UNIT V: Impact of Economic Slowdown on Indian Tourism

- Understanding Economic Slowdown
- Economic slowdown and fall in Demand of Tourism Product
- Tourism Product and Service Condition during Economic Slowdown
- Steps to overcome slackness in Tourism Business during Economic Slowdown

UNIT VI: Financial Distress and Restructuring

- Definition and Measuring of Financial Distress
- Characteristics of Financial Distress

- Cause of Corporate Financial Distress
- Impact of Financial Distress
- Financial Distress Restructuring
- Countering Financial Distress
- Government Support to Overcome Distress
- Other ways to Overcome Financial Distress

Prescribed Text Books:

1. Introductory Economics Fourth Edition, Arleen J. Hoag and John H. Hoag, Cambridge University Press India Pvt. Ltd. New Delhi, ISBN – 13: 978-81-7596-717-5

2. Strategic Financial Management, 2011, Rajini Sofat and Preeti Hiro, PHI Learning Private Limited, New Delhi 110 011, ISBN: 978-81-203-4341-2

3. Investment Management, 2008, Yogesh Maheshwari, PHI Learning Private Limited**,** New Delhi 110 011, ISBN: 978-81-203-34256-7
4. The Economics of Tourism (1997), M. Thea Sinclair and Mike Stabler, Routledge, London, ISBN: 0-415-08523-3
5. Developing Tourism amidst Economic Slowdown and Terror Attacks, S.Sundararaman, JOHAR, Vol. No. 5, No. 2, July 2010. ISSN No. 0973 - 4538

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PO Box: 21, Dharamshala, District Kangra - 176215 (HP)
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Course Code: TTM 522

Course Name: Strategic Management for Travel and Tourism

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: Strategy plays a vital role in managing the business successfully. Tourism being a complex business often requires a shift in strategies to overcome the cut throat competition. Emergence of similar destinations and services globally paved way for tourism professionals to concentrate on their strategies to attract the tourists towards their destinations, services and products. Course is mainly designed to inspire students to learn from yesterday, think about today, and to design better strategies to overcome problems in future

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. **Mid Term Examination: 25%**
2. **End Term Examination: 50%**
3. **Continuous Internal Assessment : 25%**

- Presentations: 10 %
- Class test: 10 %
- Assignments: 5%

Course Contents

UNIT 1: Strategic Purpose

- Introduction-Importance
- Purpose and Process
- Vision, Mission and Objectives
- Contexts and uses of Strategy in Tourism

UNIT – II: Strategic Analysis

- PEST Analysis
- External Environment
- Porters Five Forces Analysis
- Destination Competitiveness
- Evolution of Product
- SWOT Analysis
- Performance Monitoring and Control

UNIT - III:Strategic Choices

- Porter's Generic Strategies
- Sustaining Competitive Advantage
- Strategic Direction and Methods
- Strategic Evaluation

UNIT IV: Strategic Implementation

- Organising and Resourcing
- Managing and Monitoring
- Preparation of Strategy

UNIT V:Pricing Strategies

- Pricing Strategies When the Customer means "Value is low price"
- Pricing Strategies When the Customer means "Value is everything I want in Service"
- Pricing Strategies When the Customer means "Value is the quality I get for the Price I pay"
- Pricing Strategies When the Customer means "Value is all that I get for all that I give"

Prescribed Text Books

1. **Strategy for Tourism (2010), John Tribe. Goodfellow Publishers Limited, Oxford.**
2. Services Marketing 5th Edition, Valarie A Zeithaml, Mary Jo Bitner, Dwanye D Gremler, Ajay Pandit, Tata Mc Graw Hill Edu Pvt Ltd, ISBN 13: 978-0-07-070099-4.
3. Business Policy (2009), Azar Kazmi, Tata Mc Graw Hill Ltd, New Delhi

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
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Course Code:TTM 429

Course Name: Security, Rescue and Disaster Management

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: Disaster natural or manmade results in death and destructions. In maximum cases tourism remains the worst affected business aftermath disaster. Over the period of years researchers globally have designed ways to reduce the impact of various types of disaster. It has become imperative for tourism professionals to understand the different steps to be initiated in post disaster situation and pull tourists, affected communities, and tourism business out of trouble. This course is mainly designed for the students to understand the negative impact of disaster and motivate them to initiate steps in right direction to avoid loss to life and property

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

1. **Mid Term Examination: 25%**
2. **End Term Examination: 50%**
3. **Continuous Internal Assessment : 25%**

- Presentations: 10 %
- Class test: 10 %
- Assignments: 5%

Course Contents

UNIT 1: Dimension of Disaster

- Defining Disaster
- Types of Disaster
- Measuring Disaster
- Type of Disaster Impacts
- Disaster Archive
- Changes in Physical Environment
- Changes in Socio-Cultural Environment
- Managing Disaster
- Post-Disaster Recovery

UNIT - II:Impact of Disaster on Tourism

- Understanding Destination as a competitive unit
- Understanding the Image of the Destination
- The Image effects of Security Events
- The Significance of Negative Events in Tourism Decision Process
- Rebuilding the image of the destination

UNIT III: Impact of Terrorism on Tourism

- Analysis of Impact of Terrorism on Tourism
- Immediate needs of Tourists after Terror Attack at destinations
- Strategic actions as Preventive Measures
- Ways to eradicate Impact of Terrorism on Tourism

UNIT IV:Crisis Planning and Organisational Measures

- Generic Planning
- Contingency Planning
- Preventive Planning

UNIT V: Safety and Security in Tourism Industry

- Security and security services
- Safety signs
- Possible risk at crowded places
- First aid
- Incident Reporting
- Communication during emergencies
- Emergency Planning

- Crowd management plan
- Fire Procedures
- Evacuation Procedures
- Bomb Threat procedures
- Instructions for all employees during Disaster

Prescribed Text Books

1. Crisis Management in Tourism Industry (2003), Drik Glaesser, Elsevier Butterworth-Heinemann, Burlington, ISBN 0 7506 5976 9.
2. Dimensions of Disaster Environmental Hazards, Assessing Risk and Reducing Disaster sixth edition (2013), Keith Smith, Routledge, Oxon, ISBN: 978- 0-415-68105-9
3. Event Management for Tourism, Cultural, Business and Sporting Event, Lynn Van Der Wagen, Brenda R. Carlos, Pearson, New Delhi, ISBN: 978 – 81 – 7758 – 065 – 5.
4. "Developing Tourism amidst Economic Slowdown and Terror Attacks", S.Sundararaman, JOHAR, Vol. No. 5, No. 2, July 2010. ISSN No. 0973 - 4538
5. "Managing Environmental Degradation – An Effective Tool for Increasing Economic Benefits of Tourism", S.Sundararaman, Indian Journal of Applied Hospitality & Tourism Research, Vol. No. 2, January 2010., ISSN No. 0975 - 4954
6. "Terrorism a Key Deterrence to Tourism: Ways to Mitigate Impacts" S.Sundararaman, Indian Journal of Applied Hospitality & Tourism Research, Vol. No. 1, January 2009, ISSN No. 0975 – 4954

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Itinerary Preparation and Costing

Course Code: TTM- 409

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- This will help Students develop ideas for tour
- An idea of what is already in the marketplace
- Careful planning is required when developing an itinerary for tour.
- Detailed information on terms and conditions and provide possible ideas for brochure design and content.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10%
    - Assignments: 5%

Course Contents:

UNIT - I: Itinerary Development **(4 Hours)**

- Definition of Itinerary, various types of itineraries, tools, techniques
- Procedure involved in itinerary planning, constraints in itinerary preparation.

UNIT - II: Preparation of Itineraries **(4 Hours)**

- Preparation of Itineraries for special interest tours like Buddhism in India
- Wildlife tours, Heritage tours cuisine, Yoga
- Photography and various adventure tour programmes in Himachal.

UNIT – III: Itinerary and Its Linkages In Travel Trade **(4 Hours)**

- Linkages in Travel trade Industry with respect to Itinerary preparation (Procurement of the various services related to Itinerary preparation).

UNIT - IV: Components of Tours Package **(5 Hours)**

- Tour packaging-types, components of standard tour package:

- The points to be considered while designing a tour package. Review of tour package offered by TCI, Thomas Cook, Cox & Kings and SOTC.
- Out bound packages.

UNIT – V: Tour Packaging **(3 Hours)**

- Costing of a tour package, Techniques and tools of costing, cost sheet, calculation of supplementary services.
- Factors Affecting the Tour Cost and Procedure for Cost Determination.

REFERENCES;

1. Travel Agency and Tour operation concepts and Principals by Jagmohan Negi.

2. Encyclopaedia of Tourism Management by P.C. Sinha.

3. Tourism and travel Concepts and Principles by Jagmohan Negi.

4. Regional Development, Tourism Hotels & Travel Trade by Jagmohan Negi

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Airline Ticketing and Cargo Management

Course Code: TTM- 509

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- The Travel & Tourism Ticketing course provides a student with an understanding of the Aviation industry
- The definite role of a travel professional in this industry
- The importance of exceeding customer expectations and how changing technology has an impact on the travel industry.
- The participants are also trained in related subjects such as Industry Regulations, Codes, World Geography,
- Air Fares and Ticketing including E-Ticketing, Visa and Health requirements, as well as Tour Packages

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10%
    - Assignments: 5%

Course Contents:

UNIT - I: Introduction to Airline Industry (5 Hours)

- The Airline Industry: Origin and Growth
- Organization of the Air Transport Industry in the international context
- Schedule and non schedule air line services.
- Air taxis, multinational Air Transport regulations.
- Organization and working of DGCA. Air corporation Act Indian carries, operations, management performance.
- Marketing strategy of air India.

UNIT – II Air Fares and Ticketing (4 Hours)

- Air Fares and Ticketing: Tariffs manuals-Terms and definitions –currency regulations-Round and circle trip fares-journeys in different classes-special fares-taxes-ticketing instructions.
- Important foreign destinations for Indian tourists, their costs and detailed itineraries,
- Best potential market for outbound package and selling strategies.
- Effect of outbound promotion on domestic tourism

UNIT – III Aircraft and Flight Services (4 Hours)

- Airline Reservations, Domestic and International Ticketing
- Tariff Terminology and Fare Calculation
- Factors Affecting the Tour Cost and Procedure for Cost Determination
- Pricing Strategies and Calculation of Tour Price
- Aircrafts Configuration and Features
- Passenger Capacity and Aircraft Seating Plans
- Baggage Handling & Management
- Food & Beverage Services and Passenger Safety Plans

UNIT – IV: Automation in tourism industry (3 Hours)

- Air Transport: Airline codes and definitions-Aircraft and in-flight services
- Airport facilities and special passengers
- Automation-Baggage-International regulations-Travel guides.

UNIT – IV: Growth and Evolution of Cargo Industry (4 Hours)

- Growth and Evolution of Cargo Industry

- IATA Conference Areas. Time Zones, GMT variations, Elapsed /Flying /ground/transportation time .
- IATA 3-letter City / Apt. Codes, Country and Currency codes.

Prescribed Text Books:

1. IATA and IITM notes.

2. Travel Agency and Tour operation concepts and principles by Jagmohan Negi.

3. Encyclopaedia of Tourism Management by P.C. Binha.

4. Tourism and Travel Concepts and principles by Jagmohan Negi.

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PO BOX: 21, DHARAMSHALA, DISTRICT KANGRA - 176215 (HP)
www.cuhimachal.ac.in

Sales Promotion and Public Relations in Tourism

Course Code: TTM 529

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To make student understand the basic concepts of Sales Promotion and PR in Tourism.
- To create awareness of Sales Promotion and PR in Indian Context and to make student familiar with the concepts of Strategy.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

Mid Term Examination: 25%

End Term Examination: 50%

- **Continuous Internal Assessment : 25%**
- Presentations: 10 %
- Class test: 10 %
- Assignments: 5%

UNIT I: THE TRAVEL AND TOURISM INDUSTRY AND PR'S ROLE

- The Industry's Scope
- PR Tools and Special Audiences/Publics

- Standard PR Tools and Most Common Travel/Tourism PR Tools
- Factors Leading to PR's Prominence in the Industry
- 10 Ways to Manage COMMUNICATIONS IN a Crisis
- What PR Is, and What It Is Not PR Is Not Publicity, Propaganda, Marketing,or Advertising
- In-House PR vs. Outside Agency Support
- PR's Rich Hundred-Year Heritage
- Marketing and PR Synergies

UNIT II: PR AT HOTELS AND LODGING ESTABLISHMENTS

- PR Tools and Audiences or Publics
- Special Hotel PR Publics
- More PR Tools
- Abundant Messages/News Hooks.
- Bed-and-Breakfast (B&B) PR
- How to Use PR to Grow an Award-Winning Bed & Breakfast (B&B)
- An Essential, Cost-Effective PR Tool in the Travel Biz.

UNIT III: RESTAURANT PUBLIC RELATIONS AND TRANSPORT PUBLIC RELATIONS

- Fast-Food vs. Individual Restaurants.
- Long-Term PR Efforts Are Key to Success.
- Typical Messages and Media Targets.
- Communicating in the Language of Food and Beverage.
- Airline PR for 'Round-the-Clock Turbulence.
- Cruise Line PR.
- Relations Case Study.
- PR at Other Selected Transportation Services.

UNIT IV: DESTINATION AND TOURIST ATTRACTION PR

- Domestic Travellers and International Visitors
- CVBs and State Tourism Offices
- Working with Travel Writers
- The Importance of Truth in Crisis Communications
- Tour Operators and Wholesalers
- "Niche Tourism" PR for Amusement/Theme Parks and Attractions

UNIT V: WHAT TRAVEL AND TOURISM EMPLOYERS SHOULD UNDERSTAND

- About PR
- The Value of PR Hiring an In-House Practitioner
- Employing Outside PR Firms/Consultants
- What You Should Know About the RFP Process
- Selecting the Best Proposal for Your Organization
- PR Firm Compensation
- A Promising Future

Prescribed Text Books:

1. Travel and Tourism: An Introductory Guide for Hospitality Managers: Dennis E. Deuschl, APR

University of Glasgow Glasgow UK.

2. Public Relation as a tool of Tourism Marketing: Melis Ceylan

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Course Code: TTM 503

Course Name: Quantitative Techniques for Travel and Tourism

Credits Equivalent: 2 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

Help the learners to understand about the Tourism Research

Help students to analyse the competitive position in the Tourism Business through research

Empower students to design the tourism strategies at various situations through research

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Assignment 1: 10 %
    - Assignment 2 : 10 %
    - Class Test: 5%

Course Contents

UNIT 1: Understanding Research and Research Design

- Definition
- Objectives of Research
- What You can do with Tourism Research
- Research Design

UNIT – II: Understanding Data, Levels of Measurement and Types of Sampling

- Primary Data and Secondary Data
- Qualitative and Quantitative Research based on Nature of Data
- Nominal, Ordinal, Interval and Ratio scale
- Sampling and Types of Sampling

UNIT - III: Method of Data Collection

- Observation
- Classification of Observations
- Advantages and Limitation of Observation Methods
- Interviews
- Types of Interviews
- Advantages and Disadvantages of Interview Method
- Questionnaire and Schedule
- Difference between Questionnaire and Schedule
- Designing of Questionnaire and Schedule
- Survey through Questionnaire and Schedule

UNIT IV: Quantitative Research for Tourism Industry

- What is Quantitative Research
- Purpose of Quantitative Research in Tourism
- Measure and Compare
- Examine Relationship
- Make Forecast
- Test Hypothesis
- Construct Concepts and Theories
- Explore, Control and Explain

UNIT V: Writing up the Research

- The Report Writing Process
- The Report Structure
- Ethical and Legal Considerations

- Developing a Writing Styles

Prescribed Text Books

1. Research Methods The Basics, 2011, Nicholas Walliman, Routledge, London, ISBN 9780-415-48991-1
2. Research Methodology, 2012, Vijay Upagade, Arvind Shende, S. Chand and Company Ltd. New Delhi, ISBN 81-219-3222-X.
3. Doing Research in Real World, 2009, David E Gray, Sage Publication, New Delhi, ISBN 978-1-84787-336-1.

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Course Code: TTM437

Course Name: Front office operation in Hotels

Credits Equivalent: 4 Credits (One credit is equivalent to 10 hours of lectures / organised classroom activity / contact hours; 5 hours of laboratory work / practical / field work / Tutorial / teacher-led activity and 15 hours of other workload such as independent individual/ group work; obligatory/ optional work placement; literature survey/ library work; data collection/ field work; writing of papers/ projects/dissertation/thesis; seminars, etc.)

Course Objectives: The course is designed to

- To make student aware of the development of hotel industry & industry interlinkages.
- To bring about an understanding of front office's key role in hotel operation.
- To make student understand the various stages of Front office operation.
- To familiarize the students with the role of front office in providing guest services.
- To clarify the role of front office department in contributing to the hotel revenue as well as guest satisfaction.

Attendance Requirement:

Students are expected to attend all lectures in order to be able to fully benefit from the course. A minimum of 75% attendance is a must failing which a student may not be permitted to appear in examination.

Evaluation Criteria:

- **Mid Term Examination: 25%**
- **End Term Examination: 50%**
- **Continuous Internal Assessment : 25%**
    - Presentations: 10 %
    - Class test: 10 %
    - Assignments: 5%

Course Contents:

UNIT - I: Introduction to Front office **(8 Hours)**

- Development of Hotel industry over the period & Industry interlinkages.
- International airlines, currencies, credit cards, Travel agencies, hotel chains, capitals etc.
- Role of front office department in hotels & function of its various sections.
- Contribution of Front office staff members to the departmental & hotel operation.
- Room Tariff structure: definition, factors affecting room tariff, types of room rates etc.
- Room tariff fixation methods: cost based and market based techniques

UNIT - II: Front Office operation **(9 Hours)**

- Product selling tools-Brochures, Tariff cards, summer package brochure, tent card etc.
- Guest cycle, comparative study Front office activities & guest activities.
- Reservation: Importance, Source & modes of Reservation and its various types.
- Systems of Reservations: diary system, whitney system, computerized reservation system
- Amendment and cancellation procedures for various systems of reservation
- CRS: Centralized reservation system, Group reservations, cancellations, overbooking etc.

UNIT - III: Front office Guest Services **(9 Hours)**

- Front office communication within the departments, Log book and its importance.
- Registration Process, forms and formats used, Handling FITs(with reservation & walk-in)
- Handling GIT (Group registration), handling Registration of foreigners (C-Forms)
- Mail & message handling, paging, Safe deposit locker procedure.
- Room key control process & Room change procedure
- SB check-in procedure & Wakeup call procedure.
- Handling Guest Complaints.

UNIT - IV: Front office accounting & audit **(8 Hours)**

- Guest check out procedure & Mode of bill settlement, C/O problems and solutions.
- Front office guest accounting: types of accounts, vouchers, folios, ledger etc.
- Front office accounting cycle.
- Night auditing: Importance, function of Night Auditor& the night auditing process
- Yield Management: Concept, tools, elements, benefits, strategies & challenges.
- Forecasting: benefits, data required, necessary records, RAF: formula.
- Budgeting: types, Budgetary control: Objectives, essentials, Advantages & limitations

UNIT - V: Role of Computers in FO operation & Case studies (6 Hours)

- Computer Application in Front office: MIS, HIS, CRS, PMS
- Case studies related to Guest Handling in Front office

Prescribed Text Books:

1. Front Office Management: S.K. Bhatnagar, Frank Bros. & Co. Ltd.
2. Hotel front office operation and management: J R Tewari, Oxford University press India.

Suggested Additional Readings:

1. Professional Hotel Management: Jagmohan Negi; S. Chand Co., New Delhi.
2. Hotel front office management: James A. Bardi, Wiley India publication
3. Hotel & motel management operation: Gray and Ligouri; PHI, New Delhi, 2000.
4. Managing front office operations: Michael L. Kasavana, Richard M. Brooks
5. Hotel Front Office Training Manual: Sudheer Andrews
6. Text book of front office Management and operation: Sudheer Andrews
7. Check-In Check-Out: Managing Hotel Operations: Vallen Gary K., Vallen