Course Code	Course Name	Credits
ILO8011	Project Management	03

- 1. To familiarize the students with the use of a structured methodology/approach for each and every unique project undertaken, including utilizing project management concepts, tools and techniques.
- 2. To appraise the students with the project management life cycle and make them knowledgeable about the various phases from project initiation through closure.

- 1. Apply selection criteria and select an appropriate project from different options.
- 2. Write work break down structure for a project and develop a schedule based on it.
- 3. Identify opportunities and threats to the project and decide an approach to deal with them strategically.
- 4. Use Earned value technique and determine & predict status of the project.
- 5. Capture lessons learned during project phases and document them for future reference

Module	Detailed Contents	Hrs
	Project Management Foundation:	
01	Definition of a project, Project Vs Operations, Necessity of project management, Triple constraints, Project life cycles (typical & atypical) Project phases and stage gate process. Role of project manager. Negotiations and resolving conflicts. Project management in various organization structures. PM knowledge	5
	areas as per Project Management Institute (PMI).	
02	Initiating Projects: How to get a project started, Selecting project strategically, Project selection models (Numeric /Scoring Models and Non-numeric models), Project portfolio process, Project sponsor and creating charter; Project proposal. Effective project team, Stages of team development & growth (forming, storming, norming & performing), team dynamics.	6
	Project Planning and Scheduling:	
03	Work Breakdown structure (WBS) and linear responsibility chart, Interface Co-ordination and concurrent engineering, Project cost estimation and budgeting, Top down and bottoms up budgeting, Networking and Scheduling techniques. PERT, CPM, GANTT chart. Introduction to Project Management Information System (PMIS).	8
	Planning Projects:	
04	Crashing project time, Resource loading and leveling, Goldratt's critical chain, Project Stakeholders and Communication plan.	6
	Risk Management in projects: Risk management planning, Risk identification and risk register. Qualitative and quantitative risk assessment, Probability and impact matrix. Risk response strategies for positive and negative risks	

05	5.1 Executing Projects:	8
00	Planning monitoring and controlling cycle. Information needs and reporting,	



	engaging with all stakeholders of the projects.	
	Team management, communication and project meetings.	
	Monitoring and Controlling Projects:	
	Earned Value Management techniques for measuring value of work completed; Using milestones for measurement; change requests and scope creep. Project audit. Project Contracting	
	Project procurement management, contracting and outsourcing,	
	Project Leadership and Ethics:	-
	Introduction to project leadership, ethics in projects.	
	Multicultural and virtual projects.	
	Closing the Project:	
06	Customer acceptance; Reasons of project termination, Various types of project terminations (Extinction, Addition, Integration, Starvation). Process of project termination, completing a final report; doing a lessons learned analysis; acknowledging successes and failures; Project management templates and other resources; Managing without authority; Areas of further study.	6

- 1. Jack Meredith & Samuel Mantel, Project Management: A managerial approach, Wiley India, 7th Ed.
- 2. A Guide to the Project Management Body of Knowledge (PMBOK® Guide), 5th Ed, Project Management Institute PA, USA
- 3. Gido Clements, Project Management, Cengage Learning.
- 4. Gopalan, Project Management, Wiley India
- 5. Dennis Lock, Project Management, Gower Publishing England, 9 th Ed.

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- 4. Only Four question need to be solved.

Course Code	Course Name	Credits
ILO8012	Finance Management	03

- 1. Overview of Indian financial system, instruments and market
- 2. Basic concepts of value of money, returns and risks, corporate finance, working capital and its management
- 3. Knowledge about sources of finance, capital structure, dividend policy

- 1. Understand Indian finance system and corporate finance
- 2. Take investment, finance as well as dividend decisions

Module	Detailed Contents	Hrs
01	Overview of Indian Financial System: Characteristics, Components and Functions of Financial System. Financial Instruments: Meaning, Characteristics and Classification of Basic Financial Instruments — Equity Shares, Preference Shares, Bonds-Debentures, Certificates of Deposit, and Treasury Bills. Financial Markets: Meaning, Characteristics and Classification of Financial Markets — Capital Market, Money Market and Foreign Currency Market Financial Institutions: Meaning, Characteristics and Classification of Financial Institutions — Commercial Banks, Investment-Merchant Banks and Stock Exchanges	06
02	Concepts of Returns and Risks: Measurement of Historical Returns and Expected Returns of a Single Security and a Two-security Portfolio; Measurement of Historical Risk and Expected Risk of a Single Security and a Two-security Portfolio. Time Value of Money: Future Value of a Lump Sum, Ordinary Annuity, and Annuity Due; Present Value of a Lump Sum, Ordinary Annuity, and Annuity Due; Continuous Compounding and Continuous Discounting.	06
03	Overview of Corporate Finance: Objectives of Corporate Finance; Functions of Corporate Finance—Investment Decision, Financing Decision, and Dividend Decision. Financial Ratio Analysis: Overview of Financial Statements—Balance Sheet, Profit and Loss Account, and Cash Flow Statement; Purpose of Financial Ratio Analysis; Liquidity Ratios; Efficiency or Activity Ratios; Profitability Ratios; Capital Structure Ratios; Stock Market Ratios; Limitations of Ratio Analysis.	09
04	Capital Budgeting: Meaning and Importance of Capital Budgeting; Inputs for Capital Budgeting Decisions; Investment Appraisal Criterion—Accounting Rate of Return, Payback Period, Discounted Payback Period, Net Present Value(NPV), Profitability Index, Internal Rate of Return (IRR), and Modified Internal Rate of Return (MIRR)	10

		ı
	Working Capital Management: Concepts of Meaning Working Capital; Importance of Working Capital Management; Factors Affecting an Entity's Working Capital Needs; Estimation of Working Capital Requirements; Management of Inventories; Management of Receivables; and Management of Cash and Marketable Securities.	
05	Sources of Finance: Long Term Sources—Equity, Debt, and Hybrids; Mezzanine Finance; Sources of Short Term Finance—Trade Credit, Bank Finance, Commercial Paper; Project Finance. Capital Structure: Factors Affecting an Entity's Capital Structure; Overview of Capital Structure Theories and Approaches— Net Income Approach, Net Operating Income Approach; Traditional Approach, and Modigliani-Miller Approach. Relation between Capital Structure and Corporate Value; Concept of Optimal Capital Structure	05
06	Dividend Policy: Meaning and Importance of Dividend Policy; Factors Affecting an Entity's Dividend Decision; Overview of Dividend Policy Theories and Approaches—Gordon's Approach, Walter's Approach, and Modigliani-Miller Approach	03

- 1. Fundamentals of Financial Management, 13th Edition (2015) by Eugene F. Brigham and Joel F. Houston; Publisher: Cengage Publications, New Delhi.
- 2. Analysis for Financial Management, 10th Edition (2013) by Robert C. Higgins; Publishers: McGraw Hill Education, New Delhi.
- 3. Indian Financial System, 9th Edition (2015) by M. Y. Khan; Publisher: McGraw Hill Education, New Delhi.
- 4. Financial Management, 11th Edition (2015) by I. M. Pandey; Publisher: S. Chand (G/L) & Company Limited, New Delhi.

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Course Code	Course Name	Credits
ILO8013	Enterpreneurship Development and Management	03

- 1. To acquaint with entrepreneurship and management of business
- 2. Understand Indian environment for entrepreneurship
- 3. Idea of EDP, MSME

- 1. Understand the concept of business plan and ownerships
- 2. Interpret key regulations and legal aspects of entrepreneurship in India
- 3. Understand government policies for entrepreneurs

		1
Module	Detailed Contents	Hrs
01	Overview Of Entrepreneurship: Definitions, Roles and Functions/Values of Entrepreneurship, History of Entrepreneurship Development, Role of Entrepreneurship in the National Economy, Functions of an Entrepreneur, Entrepreneurship and Forms of Business Ownership Role of Money and Capital Markets in Entrepreneurial Development: Contribution of Government Agencies in Sourcing information for Entrepreneurship	04
02	Business Plans And Importance Of Capital To Entrepreneurship: Preliminary and Marketing Plans, Management and Personnel, Start-up Costs and Financing as well as Projected Financial Statements, Legal Section, Insurance, Suppliers and Risks, Assumptions and Conclusion, Capital and its Importance to the Entrepreneur Entrepreneurship And Business Development: Starting a New Business, Buying an Existing Business, New Product Development, Business Growth and the Entrepreneur Law and its Relevance to Business Operations	09
03	Women's Entrepreneurship Development, Social entrepreneurship-role and need, EDP cell, role of sustainability and sustainable development for SMEs, case studies, exercises	05
04	Indian Environment for Entrepreneurship: key regulations and legal aspects, MSMED Act 2006 and its implications, schemes and policies of the Ministry of MSME, role and responsibilities of various government organisations, departments, banks etc., Role of State governments in terms of infrastructure developments and support etc., Public private partnerships, National Skill development Mission, Credit Guarantee Fund, PMEGP, discussions, group exercises etc	08
05	Effective Management of Business: Issues and problems faced by micro and small enterprises and effective management of M and S enterprises (risk management, credit availability, technology innovation, supply chain management, linkage with large industries), exercises, e-Marketing	08
06	Achieving Success In The Small Business: Stages of the small business life cycle, four types of firm-level growth strategies, Options – harvesting or closing small business Critical Success factors of small business	05

- 1. Poornima Charantimath, Entrepreneurship development- Small Business Enterprise, Pearson
- 2. Education Robert D Hisrich, Michael P Peters, Dean A Shapherd, Entrepreneurship, latest edition, The McGrawHill Company
- 3. Dr TN Chhabra, Entrepreneurship Development, Sun India Publications, New Delhi
- 4. Dr CN Prasad, Small and Medium Enterprises in Global Perspective, New century Publications, New Delhi
- 5. Vasant Desai, Entrepreneurial development and management, Himalaya Publishing House
- 6. Maddhurima Lall, Shikah Sahai, Entrepreneurship, Excel Books
- 7. Rashmi Bansal, STAY hungry STAY foolish, CIIE, IIM Ahmedabad
- 8. Law and Practice relating to Micro, Small and Medium enterprises, Taxmann Publication Ltd.
- 9. Kurakto, Entrepreneurship-Principles and Practices, Thomson Publication
- 10. Laghu Udyog Samachar
- 11. www.msme.gov.in
- 12. www.dcmesme.gov.in
- 13. www.msmetraining.gov.in

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Course Code	Course Name	Credits
ILO8014	Human Resource Management	03

- 1. To introduce the students with basic concepts, techniques and practices of the human resource management.
- 2. To provide opportunity of learning Human resource management (HRM) processes, related with the functions, and challenges in the emerging perspective of today's organizations.
- 3. To familiarize the students about the latest developments, trends & different aspects of HRM.
- 4. To acquaint the student with the importance of inter-personal & inter-group behavioral skills in an organizational setting required for future stable engineers, leaders and managers.

- 1. Understand the concepts, aspects, techniques and practices of the human resource management.
- 2. Understand the Human resource management (HRM) processes, functions, changes and challenges in today's emerging organizational perspective.
- 3. Gain knowledge about the latest developments and trends in HRM.
- 4. Apply the knowledge of behavioral skills learnt and integrate it with in inter personal and intergroup environment emerging as future stable engineers and managers.

Module	Detailed Contents	Hrs
01	 Introduction to HR Human Resource Management- Concept, Scope and Importance, Interdisciplinary Approach Relationship with other Sciences, Competencies of HR Manager, HRM functions. Human resource development (HRD): changing role of HRM – Human resource Planning, Technological change, Restructuring and rightsizing, Empowerment, TQM, Managing ethical issues. 	5
02	 Organizational Behavior (OB) Introduction to OB Origin, Nature and Scope of Organizational Behavior, Relevance to Organizational Effectiveness and Contemporary issues Personality: Meaning and Determinants of Personality, Personality development, Personality Types, Assessment of Personality Traits for Increasing Self Awareness Perception: Attitude and Value, Effect of perception on Individual Decision-making, Attitude and Behavior. Motivation: Theories of Motivation and their Applications for Behavioral Change (Maslow, Herzberg, McGregor); Group Behavior and Group Dynamics: Work groups formal and informal groups and stages of group development. Team Effectiveness: High performing teams, Team Roles, cross functional and self-directed team. Case study 	7
03	 Organizational Structure & Design Structure, size, technology, Environment of organization; Organizational Roles & conflicts: Concept of roles; role dynamics; role conflicts and 	6

	stress.	
	 Leadership: Concepts and skills of leadership, Leadership and managerial roles, Leadership styles and contemporary issues in leadership. Power and Politics: Sources and uses of power; Politics at workplace, Tactics and strategies. 	
	Human resource Planning	
04	 Recruitment and Selection process, Job-enrichment, Empowerment - Job-Satisfaction, employee morale. Performance Appraisal Systems: Traditional & modern methods, Performance Counseling, Career Planning. Training & Development: Identification of Training Needs, Training Methods 	5
05	 Emerging Trends in HR Organizational development; Business Process Re-engineering (BPR), BPR as a tool for organizational development, managing processes & transformation in HR. Organizational Change, Culture, Environment Cross Cultural Leadership and Decision Making: Cross Cultural Communication and diversity at work, Causes of diversity, managing diversity with special reference to handicapped, women and ageing people, intra company cultural difference in employee motivation. 	6
06	HR & MIS Need, purpose, objective and role of information system in HR, Applications in HRD in various industries (e.g. manufacturing R&D, Public Transport, Hospitals, Hotels and service industries Strategic HRM Role of Strategic HRM in the modern business world, Concept of Strategy, Strategic Management Process, Approaches to Strategic Decision Making; Strategic Intent - Corporate Mission, Vision, Objectives and Goals Labor Laws & Industrial Relations Evolution of IR, IR issues in organizations, Overview of Labor Laws in India; Industrial Disputes Act, Trade Unions Act, Shops and Establishments Act	10

- 1. Stephen Robbins, Organizational Behavior, 16th Ed, 2013
- 2. V S P Rao, Human Resource Management, 3rd Ed, 2010, Excel publishing
- 3. Aswathapa, Human resource management: Text & cases, 6th edition, 2011
- 4. C. B. Mamoria and S.V. Gankar, Dynamics of Industrial Relations in India, 15th Ed, 2015, Himalaya Publishing, 15th edition, 2015
- 5. P. Subba Rao, Essentials of Human Resource management and Industrial relations, 5th Ed, 2013, Himalaya Publishing
- 6. Laurie Mullins, Management & Organizational Behavior, Latest Ed, 2016, Pearson Publications

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Course Code	Course Name	Credits
ILO8015	Professional Ethics and Corporat Social Responsibility (CSR)	03

- 1. To understand professional ethics in business
- 2. To recognized corporate social responsibility

- 1. Understand rights and duties of business
- 2. Distinguish different aspects of corporate social responsibility
- 3. Demonstrate professional ethics
- 4. Understand legal aspects of corporate social responsibility

Module	Detailed Contents	Hrs
01	Professional Ethics and Business: The Nature of Business Ethics; Ethical Issues in Business; Moral Responsibility and Blame; Utilitarianism: Weighing Social Costs and Benefits; Rights and Duties of Business	04
02	Professional Ethics in the Marketplace: Perfect Competition; Monopoly Competition; Oligopolistic Competition; Oligopolies and Public Policy Professional Ethics and the Environment: Dimensions of Pollution and Resource Depletion; Ethics of Pollution Control; Ethics of Conserving Depletable Resources	08
03	Professional Ethics of Consumer Protection: Markets and Consumer Protection; Contract View of Business Firm's Duties to Consumers; Due Care Theory; Advertising Ethics; Consumer Privacy Professional Ethics of Job Discrimination: Nature of Job Discrimination; Extent of Discrimination, Reservation of Jobs.	06
04	Introduction to Corporate Social Responsibility: Potential Business Benefits—Triple bottom line, Human resources, Risk management, Supplier relations; Criticisms and concerns—Nature of business; Motives; Misdirection. Trajectory of Corporate Social Responsibility in India	05
05	Corporate Social Responsibility: Articulation of Gandhian Trusteeship Corporate Social Responsibility and Small and Medium Enterprises (SMEs) in India, Corporate Social Responsibility and Public-Private Partnership (PPP) in India	08
06	Corporate Social Responsibility in Globalizing India: Corporate Social Responsibility Voluntary Guidelines, 2009 issued by the Ministry of Corporate Affairs, Government of India, Legal Aspects of Corporate Social Responsibility—Companies Act, 2013.	08

- 1. Business Ethics: Texts and Cases from the Indian Perspective (2013) by Ananda Das Gupta; Publisher: Springer.
- 2. Corporate Social Responsibility: Readings and Cases in a Global Context (2007) by Andrew Crane, Dirk Matten, Laura Spence; Publisher: Routledge.
- 3. Business Ethics: Concepts and Cases, 7th Edition (2011) by Manuel G. Velasquez; Publisher: Pearson, New Delhi.
- 4. Corporate Social Responsibility in India (2015) by BidyutChakrabarty, Routledge, New Delhi.

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Course Code	Course Name	Credits
ILO8016	Research Methodology	03

- 1. To understand Research and Research Process
- 2. To acquaint students with identifying problems for research and develop research strategies
- 3. To familiarize students with the techniques of data collection, analysis of data and interpretation

- 1. Prepare a preliminary research design for projects in their subject matter areas
- 2. Accurately collect, analyze and report data
- 3. Present complex data or situations clearly
- 4. Review and analyze research findings

Module	Detailed Contents	Hrs
01	Introduction and Basic Research Concepts Research – Definition; Concept of Construct, Postulate, Proposition, Thesis, Hypothesis, Law, Principle.Research methods vs Methodology Need of Research in Business and Social Sciences Objectives of Research Issues and Problems in Research Characteristics of Research:Systematic, Valid, Verifiable, Empirical and Critical	09
02	Types of Research Basic Research Applied Research Descriptive Research Analytical Research Empirical Research 2.6 Qualitative and Quantitative Approaches	07
03	Research Design and Sample Design Research Design – Meaning, Types and Significance Sample Design – Meaning and Significance Essentials of a good sampling Stages in Sample Design Sampling methods/techniques Sampling Errors	07
04	Research Methodology 4.1 Meaning of Research Methodology 4.2. Stages in Scientific Research Process: a. Identification and Selection of Research Problem b. Formulation of Research Problem c. Review of Literature d. Formulation of Hypothesis e. Formulation of research Design f. Sample Design g. Data Collection h. Data Analysis i. Hypothesis testing and Interpretation of Data	08

	j. Preparation of Research Report	
05	Formulating Research Problem 5.1 Considerations: Relevance, Interest, Data Availability, Choice of data, Analysis of data, Generalization and Interpretation of analysis	04
	Outcome of Research	
06	Preparation of the report on conclusion reached	04
	Validity Testing & Ethical Issues	
	Suggestions and Recommendation	

- 1. Dawson, Catherine, 2002, Practical Research Methods, New Delhi, UBS Publishers Distributors.
- 2. Kothari, C.R.,1985, Research Methodology-Methods and Techniques, New Delhi, Wiley Eastern Limited.
- 3. Kumar, Ranjit, 2005, Research Methodology-A Step-by-Step Guide for Beginners, (2nded), Singapore, Pearson Education

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Course Code	Course Name	Credits
ILO8017	IPR and Patenting	03

- 1. To understand intellectual property rights protection system
- 2. To promote the knowledge of Intellectual Property Laws of India as well as International treaty procedures
- 3. To get acquaintance with Patent search and patent filing procedure and applications

- 1. understand Intellectual Property assets
- 2. assist individuals and organizations in capacity building
- 3. work for development, promotion, protection, compliance, and enforcement of Intellectual Property and Patenting

Module	Detailed Contents	Hr
01	Introduction to Intellectual Property Rights (IPR): Meaning of IPR, Different category of IPR instruments - Patents, Trademarks, Copyrights, Industrial Designs, Plant variety protection, Geographical indications, Transfer of technology etc. Importance of IPR in Modern Global Economic Environment: Theories of IPR, Philosophical aspects of IPR laws, Need for IPR, IPR as an instrument of development	05
02	Enforcement of Intellectual Property Rights: Introduction, Magnitude of problem, Factors that create and sustain counterfeiting/piracy, International agreements, International organizations (e.g. WIPO, WTO) active in IPR enforcement Indian Scenario of IPR:Introduction, History of IPR in India, Overview of IP laws in India, Indian IPR, Administrative Machinery, Major international treaties signed by India, Procedure for submitting patent and Enforcement of IPR at national level etc.	07
03	Emerging Issues in IPR: Challenges for IP in digital economy, e-commerce, human genome, biodiversity and traditional knowledge etc.	05
04	Basics of Patents: Definition of Patents, Conditions of patentability, Patentable and non-patentable inventions, Types of patent applications (e.g. Patent of addition etc.), Process Patent and Product Patent, Precautions while patenting, Patent specification Patent claims, Disclosures and non-disclosures, Patent rights and infringement, Method of getting a patent	07
05	Patent Rules: Indian patent act, European scenario, US scenario, Australia scenario, Japan scenario, Chinese scenario, Multilateral treaties where India is a member (TRIPS agreement, Paris convention etc.)	08
06	Procedure for Filing a Patent (National and International): Legislation and Salient Features, Patent Search, Drafting and Filing Patent Applications, Processing of patent, Patent Litigation, Patent Publicationetc, Time frame and cost, Patent Licensing, Patent Infringement	07

REFERENCE BOOKS:

- 1. Rajkumar S. Adukia, 2007, A Handbook on Laws Relating to Intellectual Property Rights in India, The Institute of Chartered Accountants of India
- 2. Keayla B K, Patent system and related issues at a glance, Published by National Working Group on Patent Laws
- 3. T Sengupta, 2011, Intellectual Property Law in India, Kluwer Law International
- 4. Tzen Wong and Graham Dutfield, 2010, Intellectual Property and Human Development: Current Trends and Future Scenario, Cambridge University Press
- 5. Cornish, William Rodolph & Llewelyn, David. 2010, Intellectual Property: Patents, Copyrights, Trade Marks and Allied Right, 7th Edition, Sweet & Maxwell
- 6. Lous Harns, 2012, The enforcement of Intellactual Property Rights: A Case Book, 3rd Edition, WIPO
- 7. Prabhuddha Ganguli, 2012, Intellectual Property Rights, 1st Edition, TMH
- 8. R Radha Krishnan & S Balasubramanian, 2012, Intellectual Property Rights, 1st Edition, Excel Books
- 9. M Ashok Kumar and mohd Iqbal Ali, 2-11, Intellectual Property Rights, 2nd Edition, Serial Publications
- 10. Kompal Bansal and Praishit Bansal, 2012, Fundamentals of IPR for Engineers, 1st Edition, BS Publications
- 11. Entrepreneurship Development and IPR Unit, BITS Pilani, 2007, A Manual on Intellectual Property Rights,
- 12. Mathew Y Maa, 2009, Fundamentals of Patenting and Licensing for Scientists and Engineers, World Scientific Publishing Company
- 13. N S Rathore, S M Mathur, Priti Mathur, Anshul Rathi, IPR: Drafting Interpretation of Patent Specifications and Claims, New India Publishing Agency
- 14. Vivien Irish, 2005, Intellectual Property Rights for Engineers, IET
- 15. Howard B Rockman, 2004, Intellectual Property Law for Engineers and scientists, Wiley-IEEE Press

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Course Code	Course Name	Credits
ILO8018	Digital Business Management	03

- 1. To familiarize with digital business concept
- 2. To acquaint with E-commerce
- 3. To give insights into E-business and its strategies

Outcomes: The learner will be able to

- 1. Identify drivers of digital business
- 2. Illustrate various approaches and techniques for E-business and management
- 3. Prepare E-business plan

Module	Detailed content	Hours
1	Introduction to Digital Business- Introduction, Background and current status, E-market places, structures, mechanisms, economics and impacts Difference between physical economy and digital economy, Drivers of digital business- Big Data & Analytics, Mobile, Cloud Computing, Social media, BYOD, and Internet of Things(digitally intelligent machines/services) Opportunities and Challenges in Digital Business,	09
2	Commerce- Meaning, Retailing in e-commerce-products and services, consumer behavior, market research and advertisement B2B-E-commerce-selling and buying in private e-markets, public B2B exchanges and support services, e-supply chains, Collaborative Commerce, Intra business EC and Corporate portals Other E-C models and applications, innovative EC System-From E- government and learning to C2C, mobile commerce and pervasive computing EC Strategy and Implementation-EC strategy and global EC, Economics and Justification of EC, Using Affiliate marketing to promote your e- commerce business, Launching a successful online business and EC project, Legal, Ethics and Societal impacts of EC	06

3	Digital Business Support services: ERP as e –business backbone, knowledge Tope Apps, Information and referral system Application Development: Building Digital business Applications and Infrastructure	06
4	Managing E-Business-Managing Knowledge, Management skills for e-business, Managing Risks in e –business Security Threats to e-business -Security Overview, Electronic Commerce Threats, Encryption, Cryptography, Public Key and Private Key Cryptography, Digital Signatures, Digital Certificates, Security Protocols over Public Networks: HTTP, SSL, Firewall as Security Control, Public Key Infrastructure (PKI) for Security, Prominent Cryptographic Applications	06
5	E-Business Strategy-E-business Strategic formulation- Analysis of Company's Internal and external environment, Selection of strategy, E-business strategy into Action, challenges and E-Transition (Process of Digital Transformation)	04
6	Materializing e-business: From Idea to Realization-Business plan preparation Case Studies and presentations	08

References:

- 1. A textbook on E-commerce, Er Arunrajan Mishra, Dr W K Sarwade, Neha Publishers & Distributors, 2011
- 2. E-commerce from vision to fulfilment, Elias M. Awad, PHI-Restricted, 2002
- 3. Digital Business and E-Commerce Management, 6th Ed, Dave Chaffey, Pearson, August 2014
- 4. Introduction to E-business-Management and Strategy, Colin Combe, ELSVIER, 2006
- 5. Digital Business Concepts and Strategy, Eloise Coupey, 2nd Edition, Pearson
- 6. Trend and Challenges in Digital Business Innovation, VinocenzoMorabito, Springer
- 7. Digital Business Discourse Erika Darics, April 2015, Palgrave Macmillan
- 8. E-Governance-Challenges and Opportunities in : Proceedings in 2nd International Conference theory and practice of Electronic Governance
- 9. Perspectives the Digital Enterprise –A framework for Transformation, TCS consulting journal Vol.5
- 10. Measuring Digital Economy-A new perspective -DOI:10.1787/9789264221796-en OECD Publishing

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Course Code	Course Name	Credits
ILO8019	Environmental Management	03

- 1. Understand and identify environmental issues relevant to India and global concerns
- 2. Learn concepts of ecology
- 3. Familiarise environment related legislations

Outcomes: Learner will be able to...

- 1. Understand the concept of environmental management
- 2. Understand ecosystem and interdependence, food chain etc.
- 3. Understand and interpret environment related legislations

Module	Detailed Contents	Hrs
0.1	Introduction and Definition of Environment: Significance of Environment Management for contemporary managers, Career opportunities.	10
01	Environmental issues relevant to India, Sustainable Development, The Energy scenario.	
02	Global Environmental concerns: Global Warming, Acid Rain, Ozone Depletion, Hazardous Wastes, Endangered life-species, Loss of Biodiversity, Industrial/Man-made disasters, Atomic/Biomedical hazards, etc.	06
03	Concepts of Ecology: Ecosystems and interdependence between living organisms, habitats, limiting factors, carrying capacity, food chain, etc.	05
04	Scope of Environment Management, Role & functions of Government as a planning and regulating agency. Environment Quality Management and Corporate Environmental Responsibility	10
05	Total Quality Environmental Management, ISO-14000, EMS certification.	05
06	General overview of major legislations like Environment Protection Act, Air (P & CP) Act, Water (P & CP) Act, Wildlife Protection Act, Forest Act, Factories Act, etc.	03

REFERENCES:

- 1. Environmental Management: Principles and Practice, C J Barrow, Routledge Publishers London, 1999
- 2. A Handbook of Environmental Management Edited by Jon C. Lovett and David G. Ockwell, Edward Elgar Publishing
- 3. Environmental Management, T V Ramachandra and Vijay Kulkarni, TERI Press
- 4. Indian Standard Environmental Management Systems Requirements With Guidance For Use, Bureau Of Indian Standards, February 2005
- 5. Environmental Management: An Indian Perspective, S N Chary and Vinod Vyasulu, Maclillan India, 2000

- 6. Introduction to Environmental Management, Mary K Theodore and Louise Theodore, CRC Press
- 7. Environment and Ecology, Majid Hussain, 3rd Ed. Access Publishing.2015

Assessment:

Internal:

Assessment consists of two tests out of which; one should be compulsory class test and the other is either a class test or assignment on live problems or course project.

End Semester Theory Examination:

- 1. Question paper will comprise of total six question
- 2. All question carry equal marks
- 3. Questions will be mixed in nature (for example supposed Q.2 has part (a) from module 3 then part (b) will be from any module other than module 3)
- 4. Only Four question need to be solved.

