

**B.COM. COURSE STRUCTURE UNDER NATIONAL  
EDUCATION POLICY (NEP)**

**SEMESTER I**

| <b>CATEGORY</b> |         | <b>PAPER</b>                             |
|-----------------|---------|--|
| Major 1         | COM-100 | Financial Accounting                     |
| Minor 1         | COM-111 | Principals and Practice of Management    |
| MC              | ECO-131 | Sustainable Development                  |
| AEC 1           | ENG-151 | Communicative English Spoken and Written |
| SEC             | COM-145 | Innovation and Start-ups                 |
| VAC             | VAC-100 | Environmental Studies – I                |
|                 | VAC-110 | Indian Economics Thought                 |

Name of the Programme: Bachelor of Commerce (Honors)

Course Code: COM-100

Title of the Course: Financial Accounting

Number of Credits: 04

Effective from AY: 2023-24

01

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| <b>Pre-requisites for the Course:</b> | Nil   |
| <b>Course Objectives:</b>             | <p>Objectives of the Course are:</p> <ol style="list-style-type: none"><li>1. To develop conceptual and practical knowledge of financial accounting.</li><li>2. To acquaint learners with skills of recording various kinds of business transactions.</li><li>3. To enable learners to prepare "Statement of Profit and Loss" and "Balance Sheet" as per Schedule III of the Companies Act 2013.</li><li>4. To acquaint learners with the insights on recording transactions upon buying and selling of securities.</li></ol>   |
| <b>Content:</b>                       | <p><b>Unit 1: Accounting Fundamentals and Depreciation</b> <b>15 hours</b><br/><b>Accounting</b><br/>Accounting Fundamentals: Accounting: Meaning, Need, Nature, Classification, Users of Accounting Information, Accounting Equation, Accounting Principles, Concepts and Conventions, Accounting Standards: Meaning and Need, Elementary knowledge of IFRS.<br/>Depreciation Accounting: Meaning, Causes, Need for providing depreciation, AS 6, Methods of Depreciation – Sinking Fund Method and Insurance Policy Method.</p> <p><b>Unit 2: Accounting from Incomplete Records</b> <b>15 hours</b><br/>Single Entry System: Meaning, Features, Advantages, Limitations; Difference between Single Entry System and Double Entry System, Preparation of Trading, Profit &amp; Loss Account and Balance Sheet under Conversion Method.</p> <p><b>Unit 3: Company Final Accounts</b> <b>15 hours</b><br/>Preparation of "Statement of Profit and Loss" and "Balance Sheet" as per Schedule III of the Companies Act 2013.</p> <p><b>Unit 4: Investment Accounting</b> <b>15 hours</b><br/>Meaning and types of investments- Fixed returns (Debentures and Bonds) and Fluctuating returns (Equity shares), AS-13 Accounting for investments, Ex-interest/dividend; Cum- interest/ Dividend transactions, Brokerage, Securities Transaction Tax and other expenses, purchase and sale of investment, Bonus shares and Rights Issue, Valuation of investment.</p> |

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| <b>Pedagogy:</b>            | Lectures, Discussions, Presentations, Case Studies, Assignments, Class Activities   |
| <b>Reference/ Readings:</b> | <ol style="list-style-type: none"> <li>1. Anthony, R.N, Hawkins, D., Merchant, K. A., (2017). Accounting: Text and Cases (13th Ed). Mc Graw Hill Education.</li> <li>2. Horngren, C.T. and Philbrick, D., (2017). Introduction to Financial Accounting (11<sup>th</sup> Ed.), Pearson Education.</li> <li>3. Monga, J.R., (2023). Financial Accounting: Concepts and Applications (34<sup>th</sup> ed.). Mayur Paper Backs, New Delhi.</li> <li>4. Shukla, M.C., Grewal, T.S. and Gupta, S.C. (2017). Advanced Accounts. Vol.-I. (19<sup>th</sup> Ed.), S. Chand &amp; Co., New Delhi.</li> <li>5. Maheshwari, S.N., and Maheshwari, S.K. (2022). Financial Accounting. (6<sup>th</sup> Ed.) Vikas Publishing House, New Delhi.</li> <li>6. Goyal, B. K. and Tiwari, HN, (2021). Financial Accounting (6<sup>th</sup> Ed.), International Book House</li> <li>7. Goldwin, Alderman and Sanyal (2016). Financial Accounting (2<sup>nd</sup> Ed), Cengage India Private Limited.</li> <li>8. Tulsian, P.C. (2023). Financial Accounting (1<sup>st</sup> Ed.), S. Chand publishing.</li> <li>9. Mukherjee, A., and Hanif, M. (2018) Modern Accountancy Vol.no. 1 &amp; 2 (3rd Edition) McGraw Hill.</li> <li>10. Compendium of Statements and Standards of Accounting (2023). The Institute of Chartered Accountants of India, New Delhi.</li> </ol> |
| <b>Course Outcomes:</b>     | <p>After completion of this course, the learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Explain the basic accounting concepts, conventions and accounting standards.</li> <li>2. Record various kinds of business transactions.</li> <li>3. Prepare the financial statements as per Companies Act, 2013.</li> <li>4. Prepare Investment Accounts for buying/selling of fixed/non-fixed interest- bearing securities.</li> </ol>   |

Name of the Programme: Bachelor of Commerce (Honors)  
 Course Code: COM-111  
 Title of the Course: Principles and Practice of Management  
 Number of Credits: 04  
 Effective from AY: 2023-24

02

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|---------------------------------------|---|-----------------|
| <b>Pre-requisites for the Course:</b> | Nil   |                 |
| <b>Course Objectives:</b>             | <p>Objectives of the Course are:</p> <ol style="list-style-type: none"> <li>1. To enable the learners to describe the competitive landscape of a company using Porter's five force model.</li> <li>2. To acquaint the learners with skills to interpret the relevance of delegation and decentralization of authority in an organization.</li> <li>3. To acquaint the learners to recognize the various needs of an individual using Maslow's Need-Hierarchy Theory.</li> <li>4. To elucidate the principles and major techniques of control and apply the principles and techniques of coordination.</li> </ol>  |                 |
| <b>Content:</b>                       | <p><b>Unit 1: Introduction to Management</b><br/>         Management: Concept and Need, Managerial Functions - An overview; Coordination: Essence of Management. Evolution of Management Thought, Classical Approach - Taylor, Fayol, Neo-Classical and Human Relations Approaches - Mayo, Hawthorne Experiments, Behavioural Approach, Systems Approach, Contingency Approach, MBO, Hammer and Champy- Business Process Re-engineering, Porter's Five-forces' Model.</p>   | <b>15 hours</b> |
|                                       | <p><b>Unit 2: Planning and Organising</b><br/>         Types of Plan; Strategic planning - Concept, process, Importance and limitations; Environmental Analysis and diagnosis (Internal and external environment) - Definition, Importance and Techniques (SWOT/TOWS/WOTS-UP, BCG Matrix, Competitor Analysis); Decision-making: Process and Techniques; Perfect rationality and bounded rationality. Concept and process of organizing - An overview, Span of management, Different types of authority (line, staff and functional), Decentralization, Delegation of authority; Formal and Informal Structure; Principles of Organizing; Network Organization Structure. Emerging types.</p> | <b>15 hours</b> |
|                                       | <p><b>Unit 3: Staffing and Leading</b><br/>         Staffing: Concept of staffing, staffing process. b. Motivation &amp; Leadership: Concept, Importance, extrinsic and intrinsic motivation; Major Motivation theories - Maslow's Need-Hierarchy Theory; Herzberg's Two-factor Theory, Vroom's Expectancy Theory. Leadership: Concept and importance; Leadership styles.</p>   | <b>15 hours</b> |

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|                             | <p>Communication: Concept, purpose, process; Oral and written communication; Formal and informal communication networks, Barriers to communication, Overcoming barriers to communication. Emerging trends in communication.</p> <p><b>Unit 4: Control and Coordination</b><br/>         Concept, Process, Limitations, Principles of Effective Control, Major Techniques of control - Effective Control Systems. Coordination Concept, Importance, Principles and Techniques of Coordination, Concept of Managerial Effectiveness. Emerging issues in Management.</p>  | <b>15 hours</b> |
| <b>Pedagogy:</b>            | Lectures, Classroom discussions and Case study   |                 |
| <b>Reference/ Readings:</b> | <ol style="list-style-type: none"> <li>1. Tripathi, P. C. &amp; Reddy, P.N. (2010). Principles of Management (Fourth ed.). Tata Mc Graw Hill Education Pvt. Ltd., New Delhi.</li> <li>2. Chandan, J. S. (2004). Management, Theory &amp; Practice (Second ed.). Vikas Publishing House, New Delhi.</li> <li>3. Prasad, L. M. (2000). Principles and Practice of Management (Fifth ed.). Saultan Chand &amp; Sons.</li> <li>4. Jain, V. (2010). Management Theory &amp; Practice (First ed.). International Book House, New Delhi.</li> <li>5. Prasad, M. (2008). Management Concepts &amp; Practices. (Fourth ed.). Himalaya Publishing House, Mumbai.</li> <li>6. Subba Rao, P., &amp; Venkatram T. K. (2010). Management Theory &amp; Practice (First ed.). Himalaya Publishing House, Mumbai.</li> <li>7. Moshal, B. S. (2009). Principles of Management (First ed.). Ane Books Pvt. Ltd., New Delhi.</li> <li>8. Barton, G., &amp; Thakur, H. (1997). Management Today, Principle &amp; Practice (First ed.). Tata Mc Graw Hill Publishing Co. Ltd., New Delhi.</li> </ol> |                 |
| <b>Course Outcomes:</b>     | <p>After completion of this course, the learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe the competitive landscape of a company using Porter's five force model.</li> <li>2. Interpret the relevance of delegation and decentralization of authority in an organization.</li> <li>3. Recognise the various needs of an individual using Maslow's Need-Hierarchy Theory.</li> <li>4. Eucidate the principles and major techniques of control and apply the principles and techniques of coordination.</li> </ol>  |                 |

Name of the Programme: BA Economics

03

Course Code: ECO-131

Title of the Course: Sustainable Development

Number of Credits: 3

Effective from AY: 2022-23

**B.A ECONOMICS (Semester I )**

Course Code:ECO-131

Title of the Course: Sustainable Development

Number of Credits: 3

Total Contact Hours: 45 hrs

| Effective from AY:2022-23   |  | Prerequisites for the course:  | NIL   |                 |       |
|---|--|--|---|-----------------|-------|
| Objective: To understand global challenges, mechanism to promote equity and social justice, enhance education and awareness, and achieve long-term well being for present and future generations sustainably. |  |  |   |                 |       |
| Topic   | Syllabus   | Extended Syllabus  | References  | No of lectu-res | Marks |
| <b>1. Introduction to Sustainable Development</b>   | Definition and concept of sustainable development, objectives of Sustainable development, three pillars of sustainable development, sustainable development: process or end results? dimensions of sustainable development-social, economic and environmental, The Millennium Development Goals, Tools for Sustainable growth. | -Definition and concept of sustainable development<br>-detailed objectives of sustainable development<br>-outline of three pillars of sustainable development-environmental, economic, and social.<br>-outline of dimensions of sustainable development<br>-millennium development Goals<br>-tools for sustainable growth, Introduction to Sustainable Development Goals | -Cl. Jonathan M. Harris and Brian Roach (2018) Environmental and Natural Resource Economics A Contemporary Approach,-<br><br>-Lynne Lewis, Thomas H. Tietenberg (2020) Environmental Economics and Policy<br>-The Principles of Sustainability By Simon Dresner | 15              | 25    |

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|  |  |  |   |    |    |
| <b>2. Sustainable Development and Climate Change</b> | Causes and impact of climate change, Link between Sustainable Development and Climate Change, Implementation of Sustainable Development and Climate Change Policies, Sustainability Assessment Methods - Indicators and Indices, Conceptual Framework and System Dynamics, Multi-Criteria Analysis, Vulnerability Analysis, Climate change and migration, impact of climate change on cities, strategies adopted for climate change. | -causes of climate change<br>-impact of climate change<br>-link between sustainable development and climate change<br>-implementation of sustainable development and climate change policies<br>-Assessment methods<br>-Indicators and Indices<br>-Conceptual Framework and System Dynamics,<br>-Multi-criteria a Analysis<br>-Vulnerability Analysis,<br>-Climate change and migration<br>Impact of climate change on cities<br>-strategies adopted for climate change<br>- | . Lynne Lewis, Thomas H. Tietenberg (2020) Environmental Economics and Policy<br><br>Tietenberg, T (2003). Environmental and Natural Resource Economics, Pearson Education.<br><br>Hanley, N., Shogren, J. F. and White, B., (2001). Introduction to Environmental Economics, Oxford University Press | 15 | 25 |
| <b>3. Sustainable development and India</b>          | Emergence of Green Technologies towards Sustainable Growth, Transforming millennium development goals to sustainable development goals with reference to India, Environment  | -Green Technologies towards Sustainable Growth.<br>- Transforming millennium development goals to sustainable development goals with reference to India  | Emergence of Green Technologies Towards Sustainable Growth- By Tapan Chakraborty<br><br>Partha Dasgupta   | 15 | 25 |

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|  | <p>and Sustainable development with reference to India-state of India's environment, Strategies for sustainable development, Sustainable agriculture and climate change, Industrial development and environmental pollution., Sustainable management of water and sanitation, Environment management and sustainable development</p>   | <p>- Environment and Sustainable development<br/> - Strategies for sustainable development,<br/> - Sustainable agriculture and climate change,<br/> - Industrial development and environmental pollution<br/> - Sustainable management of water and sanitation<br/> - Environment management and sustainable development</p> | <p>(2021), The Economics of Biodiversity:</p> |  |  |
| <p><b>Pedagogy: Lectures/ case analysis/assignments/class room interaction/lab practical</b></p> |  |  |   |  |  |
| <p><b>References/Readings</b></p>  | <p><b>References :</b><br/> <b>Core Reading</b><br/> <b>C1. Jonathan M. Harris and Brian Roach (2018)</b><br/> <b>Environmental and Natural Resource Economics A Contemporary Approach, Fourth Edition, Taylor and Francis, New York</b><br/> <b>C2. Partha Dasgupta (2021), The Economics of Biodiversity: The Dasgupta Review. Abridged Version. (London: HM Treasury)</b><br/> <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957292/Dasgupta_Review_-_Abridged_Version.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957292/Dasgupta_Review_-_Abridged_Version.pdf</a><br/> <b>C3. Lynne Lewis, Thomas H. Tietenberg (2020)</b><br/> <b>Environmental Economics and Policy, Routledge, London</b></p> |  |   |  |  |
| <p><b>Course Outcomes</b></p>  | <p>Student will be able to:<br/> 1. understand global sustainability challenges,<br/> 2. Appreciate mechanisms to promote equity and social justice,<br/> 3. Explain role of enhance education and awareness in achieving long-term well being for present and future generations sustainably.</p>   |  |   |  |  |

ADDITIONAL REFERENCES:

A1. Charles D. Kolstad (2012) *Intermediate Environmental Economics*, Oxford University Press, New Delhi

A2. Stephen Smith (2011) *Environmental Economics: A Very Short Introduction*, Oxford University Press, Oxford

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Name of the Programme : B.A. English  
 Course Code : ENG-151  
 Title of the Course : Communicative English: Spoken and Written  
 Number of Credits : 02  
 Effective from AY : 2023-24

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|---------------------------------------|--|---------------------|
| <b>Pre-requisites for the Course:</b> | Interest in improving spoken and written English skills  |                     |
| <b>Course Objectives:</b>             | <ul style="list-style-type: none"> <li>● To listen, understand and convey information</li> <li>● To listen and respond appropriately to the contributions of others</li> <li>● To understand others and present facts, ideas and opinions</li> <li>● To articulate experience and express what is thought, felt and imagined</li> <li>● To communicate clearly and fluently</li> <li>● To use grammatically correct language</li> <li>● To use a register appropriate to the audience and context</li> </ul> |                     |
|                                       |  | <b>No. of Hours</b> |
| <b>Content:</b>                       | <b>UNIT 1</b> <ul style="list-style-type: none"> <li>● Verbal and non-verbal Skills: importance of pronunciation, enunciation, diction, articulation, intonation and body language.</li> <li>● Group Discussion: persuasion, negotiation, leading and participating.</li> <li>● Interview Skills: techniques of answering and conducting interviews.</li> <li>● Delivering Speeches: balancing rhetoric and empathy to connect with the audience.</li> </ul>   | <b>15</b>           |
|                                       | <b>UNIT 2</b> <ul style="list-style-type: none"> <li>● Communication through Letters: cover letters, letters of goodwill, complaint letters and invitation letters.</li> <li>● Email Correspondence: components, format, attachments, content and language.</li> <li>● Writing Reports: format and steps.</li> <li>● Drafting Speeches: special occasion, motivational, informative, and extemporaneous.</li> </ul>  | <b>15</b>           |
| <b>Pedagogy:</b>                      | Topics to be taught using interactive teaching and the workshop method.  |                     |
| <b>References/Readings:</b>           | <ol style="list-style-type: none"> <li>1. Beebe, S. A., &amp; Beebe, S. J. <i>Public Speaking: An audience centered approach</i>. 8<sup>th</sup> ed, 2012</li> <li>2. Hancock, Mark. <i>English Pronunciation in Use</i>. Cambridge UP, 2003 onwards.</li> <li>3. Krishna Mohan and N. P. Singh. <i>Speaking English Effectively</i>. Macmillan India Ltd ISBN: 0333925521</li> </ol>  |                     |

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|-------------------------|---|
|                         | <ol style="list-style-type: none"> <li>4. Loughed, Lin. <i>Business Correspondence: A Guide to Everyday Writing</i>. Longman, 2003.</li> <li>5. Murphy, Raymond. <i>Murphy's English Grammar</i>. Cambridge UP.</li> <li>6. Vyas Manish A., Yogesh L. Patel. <i>Tasks for the English Classroom</i>. Macmillan, 2012.</li> <li>7. Online Resource – The homepage of NATE (National Association of Teaching English) while a national British association, has many resources which are in effect international. Series: English Writing Frames – Copiable books. Could be used in used in conjunction with any language/Communication skills course. A systematic resource, with step-by-step practical exercises and photocopiable frames to practice with.</li> </ol> |
| <b>Course Outcomes:</b> | <p>On completion of the course, the student will be able to do the following:</p> <ol style="list-style-type: none"> <li>1. Elicit and show respect for the views of others as well as be culturally sensitive.</li> <li>2. Display emotional stability and self-confidence.</li> <li>3. Apply critical thinking skills through decision-making and problem-solving.</li> <li>4. Demonstrate effective written communication for an intended purpose and audience that follows genre/disciplinary conventions that reflect creation, organization, precision, and revision.</li> </ol>  |

Name of the Programme: Bachelor of Commerce (Honors)

Course Code: COM-145

Title of the Course: Innovation and Start-ups

Number of Credits: 03 (1T+2P)

Effective from AY: 2023-24

05

|                                       |   |                 |
|---------------------------------------|---|-----------------|
| <b>Pre-requisites for the Course:</b> | Nil   |                 |
| <b>Course Objectives:</b>             | Objectives of the Course are:<br>1. To develop an entrepreneurial mind-set.<br>2. To acquaint learners with skills to develop a business model.<br>3. To enable learners to explore funding and growth opportunities.   |                 |
| <b>Content:</b>                       | <b>Unit 1: Introduction to Startups and Entrepreneurship</b><br>Introduction to Entrepreneurship, Factors influencing Entrepreneurship, Characteristic of Entrepreneur;<br>Process and Phases of Entrepreneurship, Types of Entrepreneurs, Barriers to entrepreneurship, Entrepreneurship Motivation Theories, Entrepreneurship Models - Introduction to various form of business organization (sole proprietorship, partnership, corporations, Limited Liability company);<br>Skills of an Entrepreneur, Ethics and Entrepreneurship   | <b>15 hours</b> |
|                                       | <b>Unit 2: Exploring Business Opportunity, Developing a Business Model and Starting up (Practical)</b><br>Exploring Business Opportunity: Self-Discovery, Environment Scanning for idea generation, Problem Identification and Idea Generation, Spotting Trends, Creativity and Innovation, Idea Evaluation;<br>Developing a Business Model: Team, Market Understanding, Product/ Market Fit, Customer Validation, Business Model Canvas Preparation, Preparation of Business model and Business Plan;<br>Translating Business Model into Startup: Business Planning (Finance, HR, Marketing, Distribution, Production Plan, Networking), Obtaining Business Licenses, Applicability of Regulations | <b>30 hours</b> |
|                                       | <b>Unit 3: Startup Growth and Expansion (Practical)</b><br>Identifying Growth Opportunities, Funding Sources of Entrepreneurship for Growth, Retention & Expansion Strategies, Expansion model, Maximizing Profits, Determine appropriate exit strategies for entrepreneurs;<br>Identify Funding Agencies both private and government aided, Cases in various types of fundings: Debt Funding, Bootstrap, Seed, Series A;<br>Organizational Assistance by government for startup and various policies;  | <b>30 hours</b> |

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|                             | Incubation Centres – role, support and mentorship, prototyping and stakeholder connects, startup scaling.   |
| <b>Pedagogy:</b>            | Lectures, Discussions, Presentations, Case Studies, Assignments, Class Activities   |
| <b>Reference/ Readings:</b> | <ol style="list-style-type: none"> <li>1. Ramachandran, K. (2008). Entrepreneurship Development, McGraw Hill</li> <li>2. Katz, J., &amp; Green, R. (2020). Entrepreneurial Small Business (6<sup>th</sup> Ed.), McGraw Hill</li> <li>3. Byrd, M. J., &amp; Megginson, L. C. (2012). Small Business Management an Entrepreneur's Guidebook (7th Ed.), McGraw Hill</li> <li>4. Fayolle, A., &amp; Lyon, E. M. (2007) Entrepreneurship and new value creation: The Dynamic of the Entrepreneurial Process. Cambridge University Press.</li> <li>5. Hougaard S. (2005) The Business Idea: The Early Stages of Entrepreneurship. Springer</li> <li>6. Lowe, R., &amp; Mariott, S. (2006) Enterprise: Entrepreneurship &amp; Innovation. Butterworth Heinemann</li> <li>7. Dana, L. (2013). World Encyclopedia of Entrepreneurship, Edward Elgar.</li> <li>8. Akhouri, M. M. P., &amp; Mishra, S. P. Udyamita (in Hindi) MMP. By National Institute for Entrepreneurship and Small Business Development (NIESBUD), NSIC-PATC Campus, Okhla</li> </ol> |
| <b>Course Outcomes:</b>     | <p>After completion of this course, the learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Develop an entrepreneurial mind-set by learning key skills.</li> <li>2. Create and validate a business model and business plan.</li> <li>3. Explore business funding opportunities.</li> <li>4. Explore business growth opportunities.</li> </ol>   |

Name of the Programme: UG

Course Code: VAC-110

Thought

Number of Credits: 02

Effective from AY: 2023-24

Title of the Course: Indian Economic

06

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| <b>Pre-requisites for the Course:</b> | UG programme   |             |
| <b>Course Objectives:</b>             | 1) To facilitate the economic thought in ancient India.<br>2) To familiarise students with the contribution of Indian Economic Thinkers and the relevance of their contribution.   |             |
| <b>Content:</b>                       |  | No of hours |
|                                       | <b>Module I: Economic Thought in Ancient India</b><br>Kautilya's Asthashastra: The economic functions of the State<br>Wealth, Taxation and Pricing Policy, the Land System, Trade.   | 15          |
|                                       | <b>Module II: Economic Thought at the time of Independence</b><br>(i) Dadabhai Naoroji – his Drain Theory, his views on the British Policy of Public Finance and Financial Administration.<br>(ii) Mahadev Govind Ranade – his views on laissez-faire policy and protectionism.<br>(iii) Romesh Chandra Dutt – causes of Indian Poverty, his measures for the removal of poverty in India.<br>(iv) Gopal Krishna Gokhale – his views on public expenditure policy of the British – India Government.<br>(v) Sir. M. Visveswaraya – his views on industrialisation and planned development of India.<br>(vi) Mohandas Karamchand Gandhi – his views on village swaraj, swadeshi, use of machinery, the doctrine of trusteeship.<br>(vii) Dr. B.R. Ambedkar – his views on currency money. | 15          |
| <b>Pedagogy:</b>                      | Group Discussion, Class room Presentation, Case Studies, Quiz, Short Assignment.   |             |
| <b>References/ Readings:</b>          | <b>Core reading</b><br>C1. R. N. Ghosh and Rama Ghosh, Concise History of Economic Thought. Himalaya Publishing House, 1999.<br><br>C2. Ajit Dasgupta, A History of Indian Economic Thought, Routledge history of economic thought series, 1993 [E-book] Available: Taylor & Francis e-Library, 2002   |             |
| <b>Course Outcomes:</b>               | 1. To learn and discuss, how the economic thought has evolved over time.<br>2. To introduce & highlight before the students about Indian Economic Thinkers and their valuable contribution in the field of Economics.<br>3. Introducing students to the critical comparison of the contributions of the Indian Thinkers.   |             |

**A. Environmental Science and Education**

Name of the Programme: UG General Education Programmes

Course Code: VAC-100

Title of the Course: Environmental Studies I

Number of Credits: 02

Effective from AY: 2023-24

|                                |   |  |
|--------------------------------|---|--|
| Pre-requisites for the Course: | Nil   |  |
| Course Objectives:             | Sensitise students to environmental conservation and sustainable use of resources   |  |
| Content:                       | <p>Module 1 : Multidisciplinary nature of environmental studies<br/>                     Definition, scope and importance Need for public awareness.<br/>                     Natural Resources : Renewable and non-renewable resources :<br/>                     Natural resources and associated problems. Forest resources : Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people. Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies. Food resources : World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. Energy resources : Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies. Land resources : Land as a resource, land degradation, man-induced landslides, soil erosion and desertification. • Role of an individual in conservation of natural resources. • Equitable use of resources for sustainable lifestyles.</p> <p>Module 2 : Ecosystems<br/>                     Concept of an ecosystem. Structure and function of an ecosystem. Producers, consumers and decomposers. Energy flow in the ecosystem. Ecological succession. Food chains, food webs and ecological pyramids. Introduction, types, characteristic features, structure and function of the following ecosystem :- a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries);<br/>                     Biodiversity and its conservation Introduction – Definition : genetic, species and ecosystem diversity. Biogeographical classification of India, Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity at global, National and local levels. India as a mega-diversity nation IV, Hot-spots of biodiversity. Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts. Endangered and endemic species of India, Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.</p> | <p>No of hours</p> <p>15</p> <p>15</p> |

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|----------------------------------|--|
| <b>Pedagogy:</b>                 | Class lectures, Case Studies, Field visits   |
| <b>References/<br/>Readings:</b> | <ol style="list-style-type: none"> <li>1. Agarwal K.C. (2001): Environmental Biology, Bikaner, Nidi</li> <li>2. Bharucha E.: The Biodiversity of India, Ahmedabad, Mapin</li> <li>3. Bharucha E.: Textbook of Environmental Studies. Orient BlackSwan</li> <li>4. Brunner R.C. (1989): Hazardous Waste Incineration, New York, McGraw-Hill</li> <li>5. Chatwal G.R. &amp; Sharma H. (2005): A Textbook of Environmental Studies, Mumbai, Himalaya</li> <li>6. Clark R.S.: Marine Pollution, Oxford, Clarendon</li> <li>7. Cunningham W.P., Cooper T.H., Gorani E. &amp; Hepworth M.T. (2001): Environmental Encyclopaedia, Mumbai, Jaico.</li> <li>8. De A.K.: Environmental Chemistry, Wiley</li> <li>9. Desai R.J. (2003): Environmental Studies, Mumbai, Vipul, Goa University, Taleigao Plateau, Goa</li> <li>10. Gleick H.P. (1993): Water in Crisis, Stockholm Env't. Institute, OUP</li> <li>11. Hawkins R.E.: Encyclopedia of Indian Natural History, Mumbai, BNHS</li> <li>12. Heywood V.H. &amp; Watson R.T. (1995): Environment Protection and Laws, Mumbai, Himalaya</li> <li>13. Jadhav H. &amp; Bhosale V.M. (1995): Environment Protection and Laws, Mumbai, Himalaya</li> <li>14. McKiney M.L. &amp; Schoel R.M. (1996): Environment Science, Systems and Solutions, Web Enhanced Edition.</li> <li>15. Mhaskar A.K.: Matter Hazardous, Techno-Science Publications</li> <li>16. Miller T.G. Jr.: Environmental Science, Wadsworth</li> <li>17. Odum E.P. (1971): Fundamentals of Ecology, Philadelphia, W.B. Saunders</li> <li>18. Rao M.N. &amp; Datta A.K. (1986): Waste Water Treatment, Oxford &amp; IBH</li> <li>19. Santra S.C. (2004): Environmental Science, Kolkata, Central Book Agency</li> <li>20. Sharma B.K. (2001): Environmental Chemistry, Meerut, Goel Publishing House</li> <li>21. Townsend C., Harper J. &amp; Begon M.: Essentials of Ecology, Blackwell Science</li> <li>22. Trivedi R.K.: Handbook of Environmental Laws, Rules, Guidelines, Compliances and, Standards, Vol.1 &amp; 2, Enviro Media.</li> <li>23. Trivedi R.K. &amp; P.K. Goel: Introduction to Air Pollution, Techno-Science Publications</li> <li>24. Wagner K.D. (1998) Environmental Management, Philadelphia, W.B. Saunders Magazines</li> </ol> <p>Down to Earth, Centre for Science &amp; Environment, Survey of the Environment published by The Hindu</p> <p>E- resource<br/> <a href="http://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf">http://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf</a></p> |
| <b>Course Outcomes:</b>          | <p>Students will have the ability to</p> <ol style="list-style-type: none"> <li>1. Distinguish between renewable and non-renewable resources</li> <li>2. Understand different ways to manage resources sustainability</li> <li>3. Appreciate the value of bio-diversity and its management</li> </ol>  |