| Course title: Accounting and Finance for Sustainability |      |                              |                               |                    |  |  |
|---|------|------------------------------|-------------------------------|--------------------|--|--|
| Course code: BSI 125 No. of credits:                    |      | L-T-P distribution: 33-12-00 |                               | Learning hours: 45 |  |  |
| Pre-requisite course code and title (if any):           |      |                              |                               |                    |  |  |
| Department: Policy and Management Studies               |      |                              |                               |                    |  |  |
| Course coordinator (s): Course instructor (s):          |      |                              | · (s):                        |                    |  |  |
| Contact details:  |      |                              |                               |                    |  |  |
| Course type   | Core | Course o                     | Course offered in: Semester 3 |                    |  |  |

#### **Course Description**

The course intends to expose the learners to the emerging world of sustainability-centered accounting and finance. The field is emerging. There are many challenges to standardize the practices. Different experiments and research are on. So, it's a felt need of importance that the budding managers develop a clear perspective to actively contribute to the evolving process of newer paradigm.

## **Course Objectives**

In the context of the above course description, the objectives are to:

- Have an in-depth understanding of economic concepts and principles in climate and sustainable finance;
- Expose learners to the emerging challenges of sustainable and ESG finance and develop the right kind of attitude to address them;
- Sensitise learners on the glaring funding gaps in global climate and sustainable finance and the efficacy of market-based instruments to generate finance;
- Explain the role of different actors in climate and sustainable finance, including central banks, financial supervisory authorities, national and multilateral development banks, corporate banks, and institutional investors;
- Understand and analyze the potential risks and opportunities of environmental trends for financial markets, with a particular emphasis on climate risks;
- Explain the range of financial policy instruments and initiatives and their potential with regard to integrating climate change and sustainability into financial policy and supervisory frameworks

| Course co | ontent   |   |   |   |
|-----------|--|---|---|---|
| Module    | Торіс  | L | T | P |
|           | PART I   |   |   |   |
| 1.        | Introduction:  | 2 | 0 | 0 |
|           | <ul> <li>a. Changing paradigm of corporate finance and accounting;</li> <li>b. Integrating sustainability into business;</li> <li>c. Triple Bottom Line (TBL)and its relationship with Finance and Accounting;</li> <li>d. Emerging Challenges and opportunities.</li> </ul> |   |   |   |
| PART II   |  | • |   | • |
| 2.        | Measuring sustainability: the macro level indicators:  | 3 | 1 | 0 |
|           | <ul><li>a. Green national accounting;</li><li>b. Genuine savings;</li><li>c. System of Environmental-Economic Accounting (SEEA).</li></ul>   |   |   |   |
| 3.        | Measuring sustainability: the firm level indicators  o Green/Environmental Profit & Loss Account  o Green/Environmental Balance Sheet.   | 2 | 1 | 0 |
| 4.        | Life Cycle Cost Analysis (LCA) and Full Cost Accounting (FCA)  a. Acquisition costs versus Life Cycle costs b. Measurement techniques.   | 2 | 1 | 0 |
| 5.        | Activity Based Cost Management (ABCM):  a. Activity identification b. Cost Centers vs. Cost Drivers; c. Activity Based Cost Measurement (ABCM).  | 1 | 1 | 0 |

| 6.      | Integrated Reporting   | 3 | 2 | 0 |
|---------|--|---|---|---|
|         | a. Economic and environmental reporting;   |   |   |   |
|         | b. Integrating process;  |   |   |   |
|         | c. Sustainable Reporting Standards   |   |   |   |
| 7.      | Firm level performance analysis  | 1 | 2 |   |
|         | a. Financial vs. Non-Financial: Integration  |   |   |   |
|         | b. Challenges to developing appropriate benchmarks;  |   |   |   |
|         | c. Case studies.   |   |   |   |
| ART III |  |   |   |   |
| 8.      | Sustainability issues: Impact on Business and Economy  |   |   |   |
|         | a. Sizing climate economy  |   |   |   |
|         | b. Sustainability: Economic, Environmental and Social Factors  |   |   |   |
|         | (EES)  | 3 | 1 | 0 |
|         | c. Value creation and EES variables  |   |   |   |
|         | d. Sustainable value added (SVA): Measurement & Estimation   |   |   |   |
|         | e. Environmental liabilities: Identification and Reduction   |   |   |   |
| 9.      | Responsible Investments:   |   |   |   |
|         | a. Responsible Investment Principles aside fined by the  |   |   |   |
|         | UN(UNPRI); b. Approaches and forms;  |   |   |   |
|         | <ul><li>b. Approaches and forms;</li><li>c. Stockholders' value max vs. stakeholders' value max;</li></ul>                   | 3 | 1 | 0 |
|         | d. Stakeholders' activism;   |   |   |   |
|         | e. Valuation approaches.   |   |   |   |
|         | f. Concept of shared value and value chain analysis;   |   |   |   |
|         | g. Behavioral aspects.   |   |   |   |
| 10.     | Sustainability Risk Management   |   |   |   |
|         | a. Risks and return relationship p: the changing scenario;   |   |   |   |
|         | b. Capital budgeting decisions and sustainability risks;   | 2 | 1 |   |
|         | c. Risk Management approaches  |   |   |   |
|         | d. Developing proper risk reporting mechanism  |   |   |   |
| 11.     | Hedging Sustainability risks   |   |   |   |
|         | a. Hedging sustainability risks through market instruments;  |   | 0 | 0 |
|         | <ul><li>a. Hedging sustainability risks through market instruments;</li><li>b. Weather derivatives;</li></ul>                | 2 | 0 | 0 |
|         | c. Energy derivatives.   |   |   |   |
| 12      | Investment market and sustainability factors:  |   |   |   |
|         | Cystoinable moutfalian   |   |   |   |
|         | <ul><li>a. Sustainable portfolios;</li><li>b. Role of fund managers;</li></ul>   |   |   |   |
|         |  | 2 | 0 | 0 |
| 13      | c. Investment bankers and sustainability issues.  Market Indices and Sustainability Issues                                   |   |   |   |
| 10      | •  |   |   |   |
|         | <ul><li>d. Basis and Construction mechanisms of such indices;</li><li>e. Major green marketing dices in the world;</li></ul> | 2 |   | _ |
|         | <ul><li>e. Major green marketing dices in the world;</li><li>f. Indian position and a global comparison.</li></ul>           | 2 | 1 | 0 |
| 14      | Financing sustainability   |   |   |   |
|         | g. Kyoto Protocol and CDM;   |   |   |   |
|         | h. Carbon Financing;   |   |   |   |
|         | i. Carbon redit and emission trading;  |   | 0 | 0 |
|         | j. Other market based instruments-green bonds, social impact   | 3 | 0 | 0 |
|         | bonds and the like.  |   |   |   |
|         | oones and the fixe.  | 1 | I |   |
|         | k. Historic Climate (Green) Deal (22.04.2016 at UN)  |   |   |   |

| 15         | Policy and Regulatory issues                                |       | 2  | 0  | 0 |
|------------|---|-------|----|----|---|
|            | I. An overview of the policy issues in India and the globe; |       |    |    |   |
|            | m. Role of an appropriate regulatory framework;             |       |    |    |   |
|            | n. G20 and global growth through Green Finance.             |       |    |    |   |
|            |   | Total | 33 | 12 | 0 |
| Evaluation | on criteria   |       |    |    |   |
| ■ Test     | 1. Assignment/Presentation 20%                              |       |    |    |   |

| • | Test 1: Assignment/Presentation                    | 20% |
|---|--|-----|
| • | Test 2: Term paper based on preparing a case study | 20% |
| • | Test 3: Written                                    | 30% |
| • | Test 4: Written                                    | 30% |

#### **Learning Outcomes**

After successful completion of the course, the students will be able to:

- Comprehend the critical issues involved in accounting for sustainability and sustainable development (Modules #1 and #2).
- Innovate and use the tools and techniques for developing an accounting framework for sustainability factors in the organization. (Modules #3, #4 and #5).
- Develop a functional framework for reporting and disclosing sustainability activities. (Module #6).
- Acquire skills for firm level performance analysis. (Module #7)
- Develop a complete understanding of sustainable financing market systems, the tools and instruments used for financing sustainable development. (Module #8)
- Have an in-depth knowledge on the challenges pertaining to sustainable and ESG financing and the role of several stakeholders including central banks, financial supervisory authorities, national and multilateral development banks, corporate banks, and institutional investors to fund sustainable development efforts. (Modules #9. #10)
- Develop a thorough understanding on the nature of risks associated with sustainable financing and some of the accounting tools to address such risks. (Module #11, #12)
- Have a thorough understanding of the international conventions of climate sensitive investments (Module # 13, #14).
- Develop a fair understanding of the policy perspectives of responsible investment and finance. (Module #15)

## Pedagogical approach

The course will be delivered through lectures and discussion of case studies, research papers and articles.

### **Course Materials**

#### **Books**

- 1. Unerman, J, Bebington, J and O'Dwyer, B. Sustainable Accounting and Accountability, Routledge, London and New York, 2010.
- 2. Wells, G. Sustainable Business: theory and practice of business under sustainability, Elgar, Cheltenham, UK,2013.
- 3. Cherneva, Iveta (ed.). The Business Case for Sustainable Finance, Routledge, London and New York, 2012.
- 4. Bhattacharya, RN (ed.). Environmental Economics-an Indian Perspective, OUP, New Delhi, 2001.

# Occasional materials and hand-outs as delivered by the faculty member. \\

### Reports and Other References

- 1. UNEP. Fiduciary Responsibility: Legal and practical's pacts f integrating environmental, social and governance issues into institutional investment. USA. 2009.
- 2. MSCI. Understanding MSCI ESG Indexes: Methodologies, facts and figures. UK 2019.
- 3. Climate Bonds Initiative. ASEAN Green Financial Instruments Guide. Thailand. 2019
- 4. Climate Bonds Initiative. Bonds and Climate Change the State of The Market. USA. 2018.
- 5. Reports by Consulting Organizations such as KPMG, PwC, Deloitte, E&Y etc.

# Web sources

Sustainable stock exchange initiative. <a href="https://sseinitiative.org/">https://sseinitiative.org/</a>

S&P BSE Greenex. <a href="https://www.asiaindex.co.in/indices/equity/sp-bse-greenex">https://www.asiaindex.co.in/indices/equity/sp-bse-greenex</a>

S&P BSE Carbonex.https://www.asiaindex.co.in/indices/equity/sp-bse-carbonex

National Stock Exchange. <a href="https://www1.nseindia.com/products/content/equities/indices/thematic">https://www1.nseindia.com/products/content/equities/indices/thematic</a> indices.htm

World Federation of Exchanges. <a href="https://www.world-exchanges.org/">https://www.world-exchanges.org/</a>

Shifting and Mobilizing Finance for Sustainability. fhttps://www.wri.org/our-work/topics/finance

## Additional information (if any):

**Student responsibilities:** This is more an open-ended course. The students are required to focus on research-based learning.

Prepared by: Prof. Manipadma Datta

## Reviewers:

- 1. Prof. Madhu Vij, FMS, DU
- 2. Prof. B. Banerjee, CU.