



List of programmes offering courses on Professional Ethics, Gender Equity, Human Values, Environment and Sustainability in the Curriculum

S.No.	Programme name	Human Values	Professional Ethics	Gender Equity	Environment and Sustainability
1	B.Tech. Civil Engineering	YES	YES		YES
2	B.Tech. Electrical Engineering	YES	YES		YES
3	B.Tech. Mechanical Engineering	YES	YES		YES
4	B.Tech. Mechanical Engineering (Specialization in Automobile)	YES	YES		YES
5	B.Tech. Mechanical Engineering (Specialization in Mechatronics)	YES	YES		YES
6	B.Tech. Mechanical Engineering (Specialization in Smart Manufacturing)	YES	YES		YES
7	B.Tech. Electronics & Communication Engineering	YES	YES		YES
8	B.Tech. Electrical & Electronics Engineering	YES	YES		YES
9	B.Tech. Computer Science & Engineering	YES	YES		YES
10	B.Tech. Computer Science & Engineering (Specialization in Cloud Computing & Virtualization)	YES	YES		YES
11	B.Tech. Computer Science & Engineering (Specialization in Data Analytics)	YES	YES		YES
12	B.Tech. Computer Science & Engineering (Specialization in Cyber Security & Forensics)	YES	YES		YES
13	B.Tech. Computer Science & Engineering (Specialization in Internet of Things)	YES	YES		YES
14	B.Tech. Computer Science & Engineering (Specialization in Artificial Intelligence & Machine Learning)	YES	YES		YES
15	B.Tech. Computer Science & Engineering (Specialization in Industrial Internet of Things)	YES	YES		YES
16	B.Tech. Biotechnology	YES	YES		YES
17	Bachelor of Business Administration	YES	YES		YES
18	Bachelor of Computer Applications	YES	YES		
19	B. Sc. (Hons.) Biotechnology		YES		YES
20	B. Sc. (Hons.) Chemistry				YES
21	B. Sc. (Hons.) Agriculture	YES	YES	YES	YES
22	B. Sc. (Hons.) Physics				YES
23	Bachelor of Pharmacy				YES
24	B.Com.(Hons.)	YES	YES		YES
25	B.Com. (Hons.) Global Accounting	YES	YES		YES
26	Bachelor of Business Administration (Family Business)	YES	YES	YES	YES
27	Bachelor of Business Administration (Hons.)	YES	YES		YES
28	Bachelor of Arts (Hons.) Economics	YES	YES	YES	YES
29	Bachelor of Education	YES	YES	YES	YES
30	Bachelor Commerce LLB (Hons.)				YES
31	Bachelor of Arts LLB (Hons.)				YES
32	M. Sc. Biotechnology		YES	YES	YES
33	M. Sc. Microbiology & Immunology		YES	YES	YES
34	M. Sc. Chemistry				YES
35	M. Sc. Physics				YES
36	M. Sc. Mathematics	YES	YES		YES
37	Master of Pharmacy Pharmacology		YES		
38	Master of Pharmacy Pharmaceutics		YES		
39	M.Tech. Civil Engineering (Structural Engineering)		YES		YES
40	M.Tech. Civil Engineering (Transportation Engineering)		YES		YES
41	M.Tech. Computer Science & Engineering		YES		
42	M.Tech. Electrical Engineering		YES		
43	M.Tech. Electronics & Communication Engineering		YES		
44	M.Tech. Mechanical Engineering(Production)		YES		
45	M.Tech. Mechanical Engineering(Design)		YES		
46	Master of Business Administration	YES	YES		YES
47	MBA (Logistics and Supply Chain Management)	YES	YES		
48	MBA (Financial Markets & Banking)	YES	YES		
49	MBA Integrated	YES	YES		
50	MBA (Construction Management)				YES
51	Master of Computer Applications	YES	YES		
52	Ph.D. Civil Engineering		YES		
53	Ph.D. Electrical Engineering		YES		
54	Ph.D. Mechanical Engineering		YES		
55	Ph.D. Electronics & Communication Engineering		YES		
56	Ph.D. Computer Science & Engineering		YES		
57	Ph.D. Computer Applications		YES		
58	Ph.D. Mathematics		YES		
59	Ph.D. Physics		YES		
60	Ph.D. Chemistry		YES		
61	Ph.D. English		YES		
62	Ph.D. Management		YES		
63	Ph.D. Biotechnology		YES		
64	Ph.D. Microbiology & Immunology		YES		
65	Ph.D. Pharmaceutical Sciences		YES		
66	Ph.D. Education		YES		
67	Ph.D. Law		YES		

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

SUMMARY SHEET

S.No.	Subject Name	Code	Category
1	BUSINESS ETHICS & VALUES	BBAO0001	Open Elective
2	HUMAN VALUES AND PROFESSIONAL ETHICS	BBHO0001	Open Elective
3	ENVIROMENTAL STUDIES	BCHS0102	Basic Sciences
4	ENVIRONMENTAL SCIENCE	BSBC 0005	Programme Core
5	INTRODUCTION TO GENDER & WOMEN'S STUDIES	BELH 0012	Humanities and Social Sciences
6	ENVIRONMENTAL EDUCATION	EDB 4004	Programme Core
7	VALUE EDUCATION	EDB 4008	Programme Core
8	INNOVATING FOR SUSTAINABILITY	MBAC0036	Programme Core
9	SUSTAINABILITY MANAGEMENT	MBIC 1046	Programme Core

BBA0001: BUSINESS ETHICS & VALUES

Introduction: This course in Business Ethics and Values brings to the fore the significance of having these two as principles of business for any firm which intends to survive in the long run

Objective: It would enable students to understand such concepts as needed in today's times to infuse a sense of trust in the minds of consumers.

Credits: 04

L-T-P : 4-0-0

Module No.	Content	Teaching Hours (Approx.)
I	Introduction: Meaning and Characteristics of Ethics, Concepts & Relevance of Business Ethics, Ethical & Unethical Behaviour in Management, Factors influencing Business Ethics Concept, Characteristics, and Classification of Values, Factors affecting Values, Developing Value System in an Organisation, Values in Business Management, Values for Indian Managers.	15
II	Corporate Governance & Social Responsibility: Meaning, Objectives, Need, and Principles of Corporate Governance, OECD Principles of Corporate Governance. Meaning and Concept of Social Responsibility of Business, Levels & Approaches to Social Responsibility, Principles & Dimensions of Corporate Social Responsibility towards various Stakeholders, Voluntary Guidelines.	15
III	Contemporary Ethical Issues and Benchmarking: Meaning & Features of Indian Ethos, Principles of Indian Ethos in Management, Spiritual Managerial Values, 5 C's & holistic View to Management. Relevance of Mahabharata and Ramayana in Management. Meaning & Features of Benchmarking, Process and Types of Benchmarking.	15

Reference Books/ Text Books / Cases:

- * Ghosh, B. Ethics in Management and Indian Ethos, Noida: Vikas Publishing House Pvt. Ltd.
- * Gogate, S. B. Human Values & Professional Ethics. Noida: Vikas Publishing House Pvt. Ltd.
- * Vasishth, N., & Rajput, N. Corporate Governance Values & Ethics. New Delhi: Taxmann Publications Pvt. Ltd.
- * Chakraborty, S.K., Values and Ethics for Organizations: Theory and Practices, OXFORD University Press, India
- * Khandelwal, N.M., Indian Ethos and Values for Managers, Himalaya Publishing House Pvt. Ltd., New Delhi
- * Relevant Case Studies

Intended Outcomes: After completion of the course, student will be able to:

- * Understand the significance of value inputs thereby applying values in their lives.
- * Understand CSR and how it impacts today's businesses
- * Understand the contemporary issues related to the fields of ethics and values.
- * Understand contemporary ethical issues and benchmarking.



BBHO001: HUMAN VALUES AND PROFESSIONAL ETHICS

Introduction: *This course is intended to help students to distinguish between values and skills to ensure sustained happiness and prosperity which are the core aspirations of human beings*

Objective: *It would enable students to understand harmony at all the levels of human living and live accordingly thereby helping them to connect with inner selves.*

Credits: 04

Semester II

L-T-P: 4-0-0

Module No.	Content	Teaching Hours (Approx.)
I	Introduction: Human Values & Value Education - Meaning & Importance, Definition of Human values; A new approach to Human values-Freedom, Creativity, Love & Wisdom. Understanding Value Education-Need, Basic Guidelines, Content & Process. Self Exploration- Content and Process	15
II	Understanding the Harmony: Understanding the Human Being as a Co-existence of self 'I' and 'Body', Harmony in the-Self (I)-Understanding Myself, Harmony with the Body-Understanding Sanyama and Svasthya, Harmony in the Family-Understanding Values in Human Relationship,	15
III	Harmony and Professional Ethics: Definitiveness of Ethical Human Conduct, Basis for Humanistic Education, Humanistic Constitution & Humanistic Universal order, Understanding Professional Ethics-Ensuring Competence & Issues in Professional Ethics, Understanding of Harmony-Level of Individual, Family, Society & Profession. Typical Case Studies-Holistic Technologies & Systems	15

Reference Books/ Text Books / Cases:

- * Tripathi, A. N. *Human values*, New Delhi: New Age International (P) Limited, Publishers
- * Gaur, R.R., Sangal R., Bagaria G.P, *A Foundation Course in Human Values and Professional Ethics*, New Delhi: Excel Books Private Limited

Text Books:

- * Gogate, S. B., *Human Values and Professional Ethics*, New Delhi: Vikas Publishing
- * House Govindarajan M., *Professional Ethics & Human Values*, New Delhi: Publisher: Phi Learning
- * Ghosh, B. *Ethics in Management and Indian Ethos*, Noida: Vikas Publishing House Pvt. Ltd.

Intended Outcomes: *After completion of the course, student will be able to:*

- * *Understand the significance of value inputs in a classroom*
- * *Applying values in their lives.*
- * *Distinguish between the Self and the Body, Intention and Competence of an individual, etc*
- * *Distinguish between values and skills, happiness and accumulation of physical facilities*



BCHS 0102: ENVIRONMENTAL STUDIES

Credits: 02

Semester: I / III

L-T-P: 2-0-0

Objective: To create awareness in every Graduating student about the importance of environment, the effect of technology on the environment, eco-balance and make them sensitive towards environmental concerns for their Professional Endeavors.

Module No.	Content	Teaching Hours
I	Introduction & Concept of Ecosystem Environment: Definition, Scope, Importance, Natural Resources Ecosystem: Concept, Structure & Function, Producers, Consumers & Decomposers; Energy Flow in the Ecosystem, Ecological Succession, Food Chains, Food Webs & Ecological Pyramids.	8
II	Types of Ecosystem & Environmental Pollution: Introduction, Types, Characteristics, Features, Structure & Functions of - Forest Ecosystem, Grassland Ecosystem, Desert Ecosystem & Aquatic Ecosystems- Ponds, Streams, Lakes, Rivers, Oceans, Estuaries. Definition, Causes, Effects & Control Measures of - Air Pollution, Water Pollution, Land/ Soil Pollution, Noise Pollution, Thermal Pollution. Solid Waste Management: Causes, Effects & Control Measures of Urban & Industrial Wastes.	10
III	Human Population & the Environment: Family Welfare Programme, Environment & Human Health, Human Rights. Role of Information Technology in Environment & Human Health From Unsustainable to Sustainable Development, Urban Problems Related to Energy. Climate Change: Global Warming, Acid Rain, Ozone Layer Depletion, Nuclear Accidents & Holocaust; Water Conservation, Rain Water Harvesting, Watershed Management Environmental Protection Act, Air (Prevention & Control of Pollution) Act, Water (Prevention & Control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act.	10

Text Book:

* K.M. Gupta, (2009), "Environmental Studies, Umesh Publications, New Delhi, 2nd ed.

Reference Books:

- Devendra S. Bhargava (2005), "Foundation of Environmental Studies", Galgotia Publications Pvt. New Delhi, 1st ed
- S. Deswal & A. Deswal (2010), "Environmental Ecology", Dhanpat Rai & co. New Delhi.
- M. Anji Reddy (2008), "Textbook of Environmental Science & Technology", BS Publications, Hyderabad.

Intended Outcome: At the end of this course, the student is expected to understand about the constitution of environment, precious resources in the environment and their conservation & role of human being in maintaining eco-balance by promoting practices for sustainable development.

Approved

BSBC 0005: ENVIRONMENTAL SCIENCE

COURSE OBJECTIVE: Recognize major concepts in environmental sciences and demonstrate in-depth understanding of the environment. The environmental science major prepares you for career success in natural resources and conservation, public health, environmental monitoring and remediation, industrial environmental management, or research or education of environmental science.

Credits: 03

Semester II

L-T-P: 2-2-0

Module No.	Content	Teaching Hours
I	Environment- Definition, scope, importance Natural Resources Forest resources- Use & over-exploitation, deforestation, timber extraction, mining, dams & their effects on forest & tribal people Water Resources, Mineral Resources, Food Resources, Energy, Land Resources Ecosystem- Concept, Structure & function, Producers, Consumers & decomposers. Energy flow in the ecosystem Ecological succession, Food chains, trophic levels, food webs & ecological pyramids. Evolution of ecosystem.	14
II	Introduction, types, characteristics, features, structure & functions of – Forest ecosystem, Grassland ecosystem, Desert ecosystem & aquatic ecosystems- ponds, streams, lakes, rivers, oceans, estuaries Definition, Causes, effects & control measures of – Air pollution, water pollution, land/ Soil pollution, Marine pollution, Noise pollution, thermal pollution, Nuclear Hazards, Bio indicators, Provision in the Indian Constitution and Environmental laws.	14
III	Population Growth, Variation among nations Population explosion- Family Welfare programme, Environment & Human Health, Drug abuse, Human right. Value education, HIV/AIDS, Woman & Child Welfare Role of Information Technology in environment & human Health From unsustainable to sustainable development, Urban problems related to energy Climate Change- Global Warming, acid rain, Ozone layer depletion, nuclear accidents & holocaust Water Conservation, Rain Water harvesting, Watershed Management Environmental protection Act, Air (prevention & control of pollution) Act, Water (prevention & control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act	14

Text Book:

- Environmental Studies by Gupta, K.M

Reference Books:

- Foundation of Environmental Studies, Prof. Devendra S. Bhargava, Galgotia Publications Pvt. Ltd.
- Environmental Ecology, S. Deshwal & A. Deshwal, Dhanpat Rai & co.

- Environmental Studies, K.M. Gupta, Umesh publication.

OUTCOME: Students will develop a sense of community responsibility by becoming aware of scientific issues in the larger social context

BELH 0012: INTRODUCTION TO GENDER & WOMEN'S STUDIES

COURSE OBJECTIVES: An introductory course designed to introduce students to a variety of issues and disciplinary approaches to the study of women and gender. Classes will use audio-visual methods with oral presentations by students. Emphasis is given to the English language skills for oral communication and writing. Compulsory attendance. Limited enrolment for supervised learning.

EXPANDED DESCRIPTION: The question of gender is often a vexing one that has been important in shaping human experience and culture. We will explore how gender intersects with class, ethnicity, religion, age and other categories of experience. This course will focus primarily on gender and women's issues in the modern world. In addition to assigned readings from a range of texts, we will also attempt to examine representations of women and their condition in film and other media.

Themes: With a focus on issues of gender in domestic and workplace situations, the course will use the reading selections and multimedia materials to address a wide range of topical categories and themes, which will also be the base of students' Oral/Group Presentations:

Credits: 04

Semester II

L-T-P: 4-0-0

Module #	Content	Teaching Hours
I-	Introduction Becoming a Man or Woman: Emotions, Love, Beauty and the Media Women, Men & Sexuality: Gender & Human Bodies Modernity and Power: Institutions that Shape Our Lives MIDTERM 2: (15 marks)	8
II	Violence against Women: Domestic & Work Spaces Women and Violence: War and Terrorism Health & Reproductive Freedom: Mothering and Parenting Differences among Us: Ageism, Racism and Prejudice MIDTERM 2: (15 marks)	14
III	Review Changing Our World: Culture, Society & Practice of Gender Sensitization Oral Presentations by Students FINAL: (50 marks) WEEKLY WRITTEN RESPONSES TO ASSIGNED READINGS = 20 marks (Teacher Assessment)	8

Recommended Reading: All materials will be available via email or online LMS (there are no course textbooks to purchase). Students will require access to the internet and a computer.

Audio-Visual Material: Audio recordings will be made available via CDs and online.

Reference Books:

Study-pack derived from *Women: images and realities. A multicultural anthology*. 4th edition. Edited by Amy Kesselman, Lily D. McNair, Nancy Schniedewind. McGraw-Hill, 2007.

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

- identify important terms and concepts in the field of gender studies
- discuss the significance of important work done in this field
- discuss how different factors like age, ethnicity, race and culture impact human experiences
- discuss how women's studies and gender sensitization have led to revisions of cultural assumptions and practices regarding women
- relate gender concepts to our lived experiences
- be able to develop an oral presentation on a proposed project in some area of gender sensitization

Value Addition: Students will be able to connect, write and speak with confidence and clarity about their own responses to the selected readings and about gender and women's issues from multiple perspectives.

EDB 4004: Environmental Education

Objective: The course will enable the student teachers to understand possible environmental hazards their negative effects and method to minimize them also establish the relationship of man with environment.

Credits: 02

L-T-P-J: 2-0-0-0

Module No.	Content	Teaching Hours
MODULE I	Unit-I 1.1 Concept and meaning of Environment- Natural and man-made environment. 1.2 Ecosystem- structure, function and components. 1.3 Food chains, food webs and ecological pyramids. Unit-II 2.1 Introduction and characteristic features of – forest, grass land, desert. 2.2 Natural Resources and associated problems: Forest resources, water resources, food resources.	16
MODULE II	Unit-I 1.1 Air, water and marine pollution. 1.2 Noise, thermal and nuclear Pollution. 1.3 Solid waste- causes, effects and controlling measures of urban and industrial waste. Unit-II 2.1 Climate change- global warming, acid rain and ozone layer depletion. 2.2 Natural Disaster – flood, earthquake, cyclone and land slides	16

Practicum/Internal work:

Preparation of survey report of any public place:

- Railway station,
- Bus stand,
- Hospital,
- Industrial area etc.

Reference Books:

- Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad - 380013, India, Email: mapin@icenet. net (R).
- Cunningham, W.P.Cooper, T.H. Gorhani, E & Hepworth, M.T.2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p.
- Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay
- Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment Cambridge Univ. Press 1140p.

- Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws Himalaya Pub. House, Delhi 284 p.
- Mckinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
- Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB) Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut.
- हरिचन्द्र व्यास (2001) पर्यावरण शिक्षा, नई दिल्ली, विद्या बिहार।
- सक्सैना हरिमोहन (2003) पर्यावरण अध्ययन, श्री गंगानगर, अग्रवाल साहित्य सदन।
- सक्सैना ए.बी. (1998) पर्यावरण शिक्षा नई दिल्ली, आर्थ बुक डिपो।

NCERT (1981) Environmental Education at school level, New Delhi.

Outcome:

After completion of this course the student teacher will able:

1. To understand the concept, aims and objectives of environmental education.
2. To understand possible environmental hazards and their negative effects and method to minimize them.
3. To establish the relationship of man with environment.
4. To appreciate the role of various agencies working in the area of environment.

Mapping of Course Outcomes (COs) with Program Outcomes (POs) and Program Specific Outcomes (PSOs):

COs	POs/ PSOs
CO1	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO2	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO3	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO4	PO2,PO7,PO9,PO10 /PSO1, PSO4

EDB 4008: Value Education

Objective: *The course will enable the student teachers to develop good moral character through Value Education and understand relation between Value and personal behavior affecting the achievement of sustainable future.*

Credits: 02

L-T-P-J: 3-0-0-0

Module No./Unit	Content	Teaching Hours
UNIT I	Concept of Value Education 1.1 Value Education: Concept, Need, Nature and Sources. 1.2 Classification of values. 1.3 Views of NCFTE, 2009 for Value Education. 1.4 Celebration of Value based Activities for Promoting National Values. 1.5 Constitutional Values.	16
UNIT II	Nurturing Agencies 2.1 Formal -School- Co Curricular and Curricular Activities 2.2 Informal-Home and Society 2.3 Non formal-Mass Media	16
UNIT III	Value Crisis 3.1 Scenario of erosion of value in Modern Society. 3.2 Challenges of disseminating values in the millennium. 3.3 Methods and Techniques for improving the Social Ecology. 3.4 Role of Education in diluting value crisis.	16

Practicum/Internal work: (Any One)

- Content analysis of one teaching subject regarding development of values.
- Prepare the list of activities and their related values in School.
- Write a short story on any one value

Reference Books:

- पाण्डेय, बृजेश, (2002), मूल्यपरक शिक्षा : वर्तमान परिदृश्य, भारतीय आधुनिक शिक्षा
- पाण्डेय, रामशक्ल, एवं मिश्रा, करुणा शंकर, (2006), मूल्य शिक्षण, विनोद पुस्तक मंदिर, आगरा
- मिश्रा, रेणु, मूल्यपरक शिक्षा, राजस्थान बोर्ड शिक्षण पत्रिका, अंक : 3-4, खण्ड 44-4
- मोदी, विकास, (2006), नैतिक मूल्य व शिक्षा, शिविरा पत्रिका, जुलाई
- राधाकृष्णन्, एस. : जीवन का आदर्श दृष्टिकोण
- लोढ़ा, महावीरमल, (1996), नैतिक शिक्षा के विविध आयाम, राजस्थान हिन्दी ग्रन्थ अकादमी, जयपुर
- शर्मा, गणपतराय एवं व्यास हरिश्चन्द्र (2008), उदीयमान भारतीय समाज और शिक्षा,
- राजस्थान हिन्दी ग्रन्थ अकादमी, जयपुर
- सक्सैना, एन.आर. स्वरूप व पाण्डेय, कामता प्रसाद (2004), शिक्षा के दार्शनिक एव
- समाजशास्त्रीय सिद्धान्त, आर. लाल. बुक डिपो, मेरठ
- गोयेयन का जयदयाल-महत्वपूर्ण शिक्षा, गीता प्रेस गोरखपुर

उर्वशी सरती-नैतिक शिक्षा एवं बाल विकास प्रभात प्रकाशन, चावड़ी बाजार दिल्ली।

Gupt N.L. Value Oriented Education, Krishna brothers, Ajmer

- Prem Kripal- Value in Education NCERT, New Delhi 1981
- Swami Raghunath Anand- Eternal values for a changing society, BVB Bombay 1971

Focus: This Course is focusing on employability and skill development under the CO1, CO2, CO3, CO4, CO5 & CO6

Outcome:

After completion of this course the student teacher will able:

CO1: To develop good moral character through Value Education.

CO2: To built good teacher through Value Education.

CO3: To develop and understanding of Value Education strategies.

CO4: To consider the relation between Value and personal behaviour affecting the achievement of sustainable future.

CO5: To reflect on your future awareness, commitment and actions.

CO6: To develop skills for using values clarification and values analysis in teaching.

Mapping of Course Outcomes (COs) with Program Outcomes (POs) and Program Specific Outcomes (PSOs):

COs	POs/ PSOs
CO1	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO2	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO3	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO4	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO5	PO2,PO7,PO9,PO10 /PSO1, PSO4
CO6	PO2,PO7,PO9,PO10 /PSO1, PSO4

Innovating for Sustainability

Course Code: MBAC0036 Year: II Trimester: VI Max. Hours: 30

Preamble: This course is designed to help students develop a rigorous understanding of corporate sustainability and the role innovation plays in achieving it. Sustainability is a topic of growing interest to corporations and investors all over the world. Every major company is grappling with the meaning and application of sustainability in relation to its industry and business model. Similarly, more and more institutional investors are incorporating sustainability into their resource allocation decision making process. As a result we are seeing the emergence of a new view of the role of the corporation in society, one that simultaneously meets shareholders and other stakeholders' objectives. Achieving sustainability-for corporations, investors, analysts, information intermediaries and other forms of organizations-often requires innovations, both major and minor, in products, processes, and business models in order to optimize both financial and nonfinancial (e.g., environmental, social, and governance [ESG]) outcomes. Because the course is focused on sustainability, there is very little overlap with courses targeted on the environment or corporate social responsibility specifically.

COURSE OBJECTIVES:

- ▶▶ To develop an understanding of how sustainability can create value for a corporation by addressing social challenges and opportunities, both for the corporation itself and its customers. This can be through a lower cost structure, higher pricing and margins, greater market share, faster growth, better risk management, and brand enhancement.
- ▶▶ To explore how innovation in products, processes, and business models can improve both financial and nonfinancial performance.
- ▶▶ To understand the role various information intermediaries play in helping and challenging companies to become more sustainable through innovation, and how companies can effectively engage with them.

UNIT – I	<p>History Defining sustainable development – concept and evolution. Environmental issues – the growing awareness and need for regulation. The paradigm shift in doing business – the triple bottom line approach to business sustainability. Corporate social and environmental responsibility</p>	(5 Sessions)
UNIT –II	<p>Sustainability Innovation in Business Environmental challenges and business management issues. Limits to conventional growth model. Concept of efficiency and eco-efficiency. Defining sustainability innovation. Basic corporate environmental strategies. Sustainable product development. Managing creativity & innovation for business.</p>	(5 Sessions)
UNIT – III	<p>Sustainable Marketing: Concept and definition, Framework of sustainable marketing.</p>	(5 Sessions)

	Creating and implementing a sustainable marketing strategy. Consumer behavior and sustainable marketing.	
MID-TERM EXAMINATION		
UNIT – IV	Entrepreneurship and Sustainability Innovation Analysis Entrepreneurial process Linear thinking, systems thinking and molecular thinking Weak ties, Strong Ties and Adaptive collaboration through value added networks. Social entrepreneurship and Innovation. Analysis of how corporate leaders/businesses are approaching sustainability innovation and sustainability strategy.	(5 Sessions)
UNIT – V	Energy and Climate The industrial revolution and the role of human induced global warming. The energy scenario and the linkages to environmental sustainability and climate change. Global climate negotiations framework- UNFCCC The issues plaguing the current talks between developed and developing nations.	(5 Sessions)
UNIT – VI	Going Green What is Green and Green Washing. The pitfalls to avoid green washing and Sins of Green Washing. Sustainability in the Value Chain ; Developing sustainable channel operations.	(5 Sessions)
* Provision for presentations / assignments / case analysis in additional sessions ** 1 Session = 60 Minutes		

Text Books:

- ▶▶ Andrea Larson (2010), Sustainability, Innovation, and Entrepreneurship ,Flat World Knowledge
 - ▶▶ Tracey Strange, Anne Bayley (2010), Sustainable Development, Organization for economic cooperation and development.
- Diane Martin, John Schouten (2015), Sustainable Marketing , Pearson

MBIC 1046: Sustainability Management

OBJECTIVES:

- ▶▶ To develop an understanding of how sustainability can create value for a corporation by addressing social challenges and opportunities, both for the corporation itself and its customers. This can be through a lower cost structure, higher pricing and margins, greater market share, faster growth, better risk management, and brand enhancement.
- ▶▶ To explore how innovation in products, processes, and business models can improve both financial and nonfinancial performance.
- ▶▶ To understand the role various information intermediaries play in helping and challenging companies to become more sustainable through innovation, and how companies can effectively engage with them.

Credits: 03

L-T-P-J: 3-0-0-0

UNIT – I	Defining sustainable development – concept and evolution. Environmental issues – the growing awareness and need for regulation. The paradigm shifts in doing business – the triple bottom line approach to business sustainability.	(5 Sessions)
UNIT –II	Sustainability Innovation in Business Environmental challenges and business management issues, Concept of efficiency, eco-efficiency, carbon zero and carbon neutral companies, Sustainability innovation, Sustainable product development.	(5 Sessions)
UNIT – III	Sustainable Marketing: Concept and definition, Framework of sustainable marketing, Creating and implementing a sustainable marketing strategy.	(5 Sessions)
MID-TERM EXAMINATION		
UNIT – IV	Entrepreneurship and Sustainability Innovation Analysis: Entrepreneurial process, Social entrepreneurship and Innovation. Analysis of how corporate leaders/businesses are approaching sustainability innovation and sustainability strategy.	(5 Sessions)
UNIT – V	The Sustainable Development Goals: The role of United Nations, countries, Challenges and Recommendations	(5 Sessions)
UNIT – VI	Going Green What is Green and Green Washing. The pitfalls to avoid green washing and Sins of Green Washing, Sustainability in Supply Chain: Role of companies and customers: an evidence from recent trends	(5 Sessions)
* Provision for presentations / assignments / case analysis in additional sessions		
** 1 Session = 60 Minutes		

Text Books:

- Andrea Larson. Sustainability, Innovation, and Entrepreneurship, Flat World Knowledge.
- Tracey Strange, Anne Bayley. Sustainable Development, Organization for economic cooperation and development.
- Diane Martin, John Schouten. Sustainable Marketing, Pearson.

Outcomes: After completion of course, the student will be able to:

- CO: Understand the concept of Sustainable development with a paradigm shift towards Triple Bottom Line Business approach
- CO2: Understand the concept of creativity and sustainability innovation in Business.
- CO3: Construct sustainable marketing strategy.
- CO4: Understand role of Innovation Analysis in Entrepreneurial process
- CO5: Summarize the dimensions of energy scenario and its impact on environmental sustainability
- CO6: Explain Green Washing and Sustainability in the Value Chain.

Mapping of Course Outcomes (COs) with Program Outcomes (POs) and Program Specific Outcomes (PSOs):

COs	POs/ PSOs
CO1	PO1/PO2/PO5/PSO1,PSO2
CO2	PO5/PO4/PSO1,PSO2
CO3	PO3/PO5/PSO1,PSO2, PSO3
CO4	PO3/ PO5/PSO1, PSO2, PSO3
CO5	PO5/PO4/PSO2, PSO3, PSO4
CO6	PO5/PO3/PSO1,PSO2, PSO3