



SNDT Women's University, Mumbai

Open Electives Course (OEC)
for
**Students of Faculty of Interdisciplinary
Studies**
for
Semester – II

As Per NEP – 2020

Syllabus
(WEF. 2025-2026)

OEC For Semester II

Sr. No.	Subject Code	Title
1	20410611	Principal of Economics
2	20410111 20410112	Empowering through English - Paper II (For English Medium Students) OR Empowering through English - Paper II (For Non English Medium Students)
3	20410711	Climate Change: Vulnerability and Adaptation
4	20410811 20410812	Women in Science and Art OR Tourism Products of India
5	20410911	Democracy in India
6	20411011	Psychology Applied to Modern Life
7	20411111	Understanding Gender
8	20410411	मराठी लोककला प्रकार
9	20410311	भारतीय लोककथाये
10	20420111 OR 20420112 OR 20420113 OR 20420114 OR 20420115 OR 20420116 OR 20420117 OR 20420118 OR 20420119	Environmental Studies OR Business Statistics OR Principles of Marketing OR Fundamentals of Accounting Paper-II OR Island Destinations in India OR NGO Governance OR Fundamentals of Corporate Social Responsibility in India OR Digital Skills OR Emotional Intelligence at Workplace
11	20430511	Development Activities for Young Children (Th)
12	20432611	Biofuels

13	20432111	Science Café
14	20434311	Microbiology-II (THEORY & PRACTICAL)
15	20430921	Basic Fashion Illustration
16	20430611	Human Physiology (Theory & Practical)
17	20430111	Cuisines Of India II
18	20430311	Basic Food Analysis (Pr)
19	20430211	Culinary Science (Pr)
20	20430411	Introduction to Communication and Media (Th)
21	20432311 20432312 20432313	Mathematics for Business and Management – II Bio-Mathematics-II Advanced Mathematics for Competitive Exam
22	20432511	Microbial infections and human defence mechanisms (THEORY)
23	20432211	Physics in Daily Life
24	20430721	Basic Fashion Illustration
25	20432411	Amazing Animal World
26	20430811	Principles of Management (Theory)

Course Title	Principal of Economics
Course Credits	4

Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> Identify the elementary concepts in economics.
	<ul style="list-style-type: none"> Explain the various scientific methods of economics.
	<ul style="list-style-type: none"> Describe the market structure and it's features.
	<ul style="list-style-type: none"> Discuss the interdependence of trade in modern era.
Module 1(Credit 1)	Principles of Economics
Learning Outcomes	After learning the module, learners will be able to
	1. Summarize the principles of economics
	2. Discuss the Role of Government in improving market outcomes
Content Outline	1.1 Trade-offs faced by the individuals, Significance of opportunity cost in decision making ,Thinking at the margin responses to incentives 1.2 Benefits from exchange, Organization of economic activities through markets and its benefits 1.3 Role of government in improving market outcomes, Dependence of standard of living on production 1.4 Growth in quantity of money and inflation, Inflation and unemployment trade-off.
Module 2(Credit 1)	Economics and Its Scientific Methods
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the concept of scientific Methods and economic models.
	2. Identify the role of economist and their thought of School
Content Outline	2.1 Concept of the scientific method, Role of assumptions 2.2 Economic models: circular flow of income and production possibilities curve 2.3 Micro economics and Macroeconomics 2.4 Economist as policy advisors, Positive economics and normative economics 2.5 Causes of disagreement among economists
Module 3(Credit 1)	Market Demand and Supply
Learning Outcomes	After learning the module, learners will be able to
	1. Illustrate different markets, types of demand and supply
	2. Analyze the market equilibrium in different markets.
Content Outline	3.1 Definition of Market and Competition 3.2 Demand curves: Market demand versus individual demand, 3.3 Movements along the demand curve, Shifts in the demand curve, 3.4 Supply curves: Market supply and individual supply-Shifts in supply curve 3.5 Market equilibrium – three steps to analyze changes in equilibrium

Module 4(Credit 1) Interdependence and Trade	
Learning Outcomes	After learning the module, learners will be able to
	1. Identified the concept and difference between internal and international trade.
	2. describe the various cost advantages of international trade.
Content Outline	4.1 Concept of National and International Trade, Difference between International and National Trade 4.2 International Trade as an engine of growth 4.3 Meaning of absolute cost advantage, Opportunity cost and comparative cost advantage 4.4 Trade policy: free trade and protected Trade 4.5 Exchange rate –Concept and types

2.4 Open Elective Course (OEC)

For students of English Medium

Course Title	Empowerment through English -Paper II (For Students of English Medium)
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	1.Read and comprehend literary texts
	2.Relate to the visual and verbal aspects in graphical texts
	3.Apply appropriate vocabulary and construct correct grammatical structures in oral presentations
	4.Write full length essays expressing their views on different issues
Module 1 (Credit 1) Understanding Novella	
Learning Outcomes	After learning the module, learners will be able to
	1. Read and comprehend literary texts
	2.Analyse and respond to the textual content
Content Outline	Prescribed Texts: The Living Mountain by Amitav Ghosh An Imprint of HarperCollins Publishers, 2022
Module 2 (Credit 1) Understanding Graphic Content	
Learning Outcomes	After learning the module, learners will be able to

	1. Understand and relate to graphic content (in books/magazines)
	2. Create and make effective verbal and visual presentations
Content Outline	Prescribed text: Amar Chitra Katha Comics :- APJ Abdul Kalam. Ed. By Anant Pai
Module 3 (Credit 1) Learning Grammar	
Learning Outcomes	After learning the module, learners will be able to
	1. Construct grammatically correct sentences
	2. Use correct structures in presentations
Content Outline	Prescribed Grammar components: Tense, Voice, Direct and Indirect speech
Module 4 (Credit 1) Essay Writing	
Learning Outcomes	After learning the module, learners will be able to
	2. Write full-length essay with logical flow thought
Content Outline	Prescribed component: Extended writing- Expository and Argumentative Essay Writing

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Evaluation Pattern

Internal Examination - 50 marks	
Activity	Marks
1.Assignments (Conversation/Role play) based on prescribed text	20
2.Classroom presentation/project on Amar Chitra Katha (prescribed and others)	20
3. Discussion in group on general topics (aimed at developing expository or argumentative skills)	10
Semester end External Examination - 50 marks	
1.Unseen Comprehension	15
2.Short notes on Novella – (3 from 5)	15
3.Grammar and Vocabulary (Do as Directed)	10
4.Essay writing	10

References:

1. *English Grammar in Use*. Raymond Murphy, Cambridge.
2. Amar Chitra Katha Comics
3. *Champak*. (English Magazine) Delhi Press
4. *How to Study a Novel*. Andre Brink, Macmillan 1995

5. Gangal J K. *A Practical Course In Developing Writing Skills in English*. PHI Learning Private Limited. 2011

6. Sinha Chaudhari Santanu. *Learn English*. McGraw Hill Education Pvt.ltd. New Delhi. 2013.

2.6 Open Elective Course (OEC)	
For Students of non-English medium	
Course Title	English for Empowerment -Paper II (For Students of Non-English Medium)
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	1. Use literary texts as contexts for teaching language in use.
	2.Enable listening and using language in context.
	3.Write longer, descriptive and creative text.
	4.Develop accuracy, appropriateness and fluency in communication.
Module 1 (Credit 1) Understanding Short Stories	
Learning Outcomes	After learning the module, learners will be able to
	1. Improve Reading skills.
	2. Analyze and respond to the textual content
Content Outline	Prescribed Texts: First two short stories from <i>Yuvakatha</i> , vol 7, ed. By Keerti Ramachandra, Katha, New Delhi, 1996.
Module 2 (Credit 1) Language in Use (In Graphics and Magazines)	

Learning Outcomes	After learning the module, learners will be able to
	1. Understand and relate to graphic content (in books/magazines)
	2.Create and make effective verbal and visual presentations 3. Write short and long sentences using the given words.
Content Outline	Prescribed text: 1.Articles from magazines in English. 2. Cartoon books, graphic stories, animated audio-visual content
Module 3 (Credit 1) Paragraph and Letter Writing	
Learning Outcomes	After learning the module, learners will be able to
	1. Write longer paragraphs on given topics.
	2. Write Formal Letters of Complaints / letters to editors.
Content Outline	Prescribed components: 1. Long Paragraph Writing 2. Formal Letters of Complaints. Letters to editors.
Module 4 (Credit 1) Speaking Skills	
Learning Outcomes	After learning the module, learners will be able to
	1.Develop listening skills.
	3. Respond to spoken structures.

Content Outline	Prescribed component: <i>A Course in Listening and Speaking – II, V.Sasikumar et.al, Cambridge University Press, 2014.</i>
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

Evaluation Pattern

Internal Examination - 50 marks	
Activity	Marks
1.Assignments (Conversation/Role play) based on prescribed text	20
2.Collection of samples of long paragraphs	10
3,Compilation of Sample Formal Letters	10
4. Group Discussions on given topics	10
Semester end External Examination - 50 marks	
1.Unseen Comprehension	15
2.Short notes on Novella – (3 from 5)	15
3.Grammar and Vocabulary (Do as Directed)	10
4.Long Paragraph writing OR Formal Letter Writing	10

References:

- 1.Nagaraj, Geeta. *Write to Communicate*,Cambridge University Press/Foundation Books, 2004

2. Sasikumar V. et.al . *A Course in Listening & Speaking- II* Cambridge University Press, 2006.
3. Moula Shaikh ed. *Communication Skills : A Practical Approach*. Frank Bros. & Co. 2011
4. Grellet, Francoise. *Developing Reading Skills*, Cambridge University Press, 1981.

Course Title	Climate Change: Vulnerability and Adaptation
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	1. Explain the basic concepts of Climate and Weather
	2. Describe the causes and effects of Climate Change
	3. Summarize the Climate Change Vulnerability and Adaption
	4. Acquaint Vulnerability Assessment of Climate Change and its Mitigation
Module 1 (Credit 1): Introduction to Climate Change	
Learning Outcomes	After learning the module, learners will be able to
	1. Describe the concepts of Weather, Climate and Climate Change 2. Explain the evidence and events of Climate Change
Content Outline	1. Introduction to Climate Change: 1.1 Concept of weather and Climate 1.2 Definition, Meaning of Climate Change. 1.3 Concept of Climate change 1.4 Evidence of Climate change: Meteorological, biological, greenhouse effect, Global Warming 1.5 Extreme Weather and Climate events: Drought, Extreme Heat, Extreme precipitation, Hurricanes, Tornadoes and Wild fire.
Module 2 (Credit 1): Causes and Effects of Climate Change	
Learning Outcomes	After learning the module, learners will be able to
	1. Interpret the Causes and Effects of Climate Change. 2. Describe the Efforts to control the Climate Change
Content Outline	2. Causes and Effects of Climate Change: 2.1 Causes of Climate Change 2.1.1 Natural Causes – a) Solar variation b) Volcanic eruption c) Ocean Currents d) Earth orbital change e) Internal variability 2.1.2 Human Causes- a) Burning fossil fuel b) Deforestation c) Intensive Agriculture d) Industries 2.2 Effects of Climate Change 2.2.1 Water Resources 2.2.2 Agriculture 2.2.3 Human Health 2.2.4 Vegetation 2.2.5 Economy 2.2.6 El Nino and La Nina 2.3 International Efforts to control the Climate Change 2.3.1 UNFCCC its policy framework and provisions 2.3.2 Earth Summit Rio-de-Janeiro

	2.3.3 World Summit 2.3.4 Kyoto Protocol 2.3.5 Copenhagen Summit 2.3.6 Doha Conference
Module 3 (Credit 1): Climate Change Vulnerability and Adaptation	
Learning Outcomes	After learning the module, learners will be able to
	1. Acquaint with the meaning and types of Climate Change Vulnerability 2. Acquire the various Approaches and Strategies of Climate Change Adaptions
Content Outline	3. Climate Change Vulnerability and Adaptation 3.1 Meaning and Types of Vulnerability 3.2 Meaning, definition and types of adaptation 3.3 Approaches of adaptation 3.4 Adaptation strategies 3.5 Adaptation in different sectors – Agriculture, forest, Water Resources, Biodiversity, Disaster risk Management
Module 3 (Credit 1): Vulnerability Assessment of Climate Change and Its Mitigation	
Learning Outcomes	After learning the module, learners will be able to
	1. Differentiate the Assessment of Climate Change Vulnerability 2. Appreciate the world wide Climate Change Mitigation initiatives
Content Outline	4. Vulnerability Assessment of Climate Change and Its Mitigation: 4.1 Climate Change Vulnerability Assessment 4.2 Global Initiative to climate change mitigation: Kyoto Protocol, Carbon trading, clean development mechanism, COP, 4.3 Indian Initiative to support climate change mitigation: improving energy efficiency, Diversification of energy source, modifying industrial processes, a multipronged strategy for sustainable development and clean development mechanism (CDM) in India.

Course Title	Women in Science and Art
Course Credits	04
Course Outcomes	After going through the course, learners will be able to
	1. discuss the gender and myth of science and creative arts
	2. locate the women in professional courses and their
	3. evaluate the role of women in the patriarchal world
Module 1 (Credit 1) Women in Scientific Field	
Learning Outcomes	After learning the module, learners will be able to
	1. analyse Gender and its myth of science
	2. examine Women Pioneer's in SEM
Content Outline	<ul style="list-style-type: none"> ➤ Gender bias and politics of women in Science ➤ Early Women Pioneers and their struggle in SEM (Science, Engineering and Medicine) ➤ Dr. Anandibai Joshi, Dr. Kadambini Ganguly, Dr. Muthulaxmi Reddy, Dr. Kamala Sohoni, Ayyalasomayajula Lalitha and others
Module 2 (Credit 1) Women Scientists in India	
Learning Outcomes	After learning the module, learners will be able to
	1. interpret Women's hurdles in STEM
	2. examine government's policies for women's education in STEM
Content Outline	<ul style="list-style-type: none"> ➤ Barriers to Women's entry in science and health, Indian Government's policies – KAVERI, CURIE, GATI (Any one) ➤ Health: Dr. Indira Hinduja, Gagandeep Kang and others ➤ Defense Research & Technology: Tessy Thomas, Ritu Karidhar, Anuradha T.K., Mangala Mani and others (Any three)
Module 3 (Credit 1) Women and creative art	
Learning Outcomes	After learning the module, learners will be able to
	1. examine the contribution of Women as a class in Handicrafts, Ritualistic arts and Traditional Paintings
	2. analyse the challenges faced today in preserving the traditional forms of art practised by women.
Content Outline	<ul style="list-style-type: none"> ➤ Women and handicrafts: textiles, Embroidery, Stitching, Weaving etc. (Any three) ➤ Women in ritualistic arts: Rangoli, Kolam, Art of Guga Novami, Art of Sanjhi etc. (Any three) ➤ Traditional paintings: Mithila, Warli, Madhubani, Gond and Bhil etc. (Any three)
Module 4 (Credit 1) Women in Performing arts	
Learning Outcomes	After learning the module, learners will be able to

	1. identify the challenges that women face in establishing themselves in the fields of performing arts
	2. evaluate the role of women in theatre and cinema
Content Outline	<ul style="list-style-type: none"> ➤ Women in music: Heerabai Badodekar, Jyotsna Bhole, Shamshad Begam, M.S. Subbalaxmi, Yamunabai Waikar and others (any three) ➤ Women in dance: Mrinalini Sarabhai, Rohini Bhate, Tija Bai, Helan, Kanak Rele and others (Any three) ➤ Women in theatre and cinema: Jaymaladekar, Vijaya Mehta, Devika Rani, Suchitra Sen, Smita Patil, Shabana Azami and others (Any three)

Course Title	Tourism Products of India
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	1. describe the tourist products of India
	2. distinguish the various types of tourist products
	3. identify the significance of religious, natural, environmental and health tourism products
	4. assess the tourist resource potential of India
Module 1 (Credit 1) Types of tourist products	
Learning Outcomes	After learning the module, learners will be able to
	1. explain the meaning of tourist products
	2. identify new and innovative tourist products in India
Content Outline	<ul style="list-style-type: none"> ➤ Types of tourism products- cultural, religious, spiritual, wellness, health, medical, adventure, nature-related, MICE etc ➤ World Heritage Sites in India ➤ New products- e-Tourism, rural/agro tourism, gastronomy and wine tourism, dark tourism
Module 2 (Credit 1) Cultural Tourism	
Learning Outcomes	After learning the module, learners will be able to
	1. explain the meanings and significance of cultural tourism
	2. identify the major cultural tourist destinations and products
Content Outline	<ul style="list-style-type: none"> ➤ Monuments and archaeological sites (discuss any two sites) ➤ Fairs and Festivals (discuss any two examples) ➤ Museums, galleries, exhibitions (discuss any two examples)
Module 3 (Credit 1) Health, Wellness and Medical Tourism	
Learning Outcomes	After learning the module, learners will be able to
	1. explain the meanings and significance of health and wellness
	2. identify the major health and medical tourist destinations and products in India
Content Outline	<ul style="list-style-type: none"> ➤ Health and wellness tourism: meaning and significance ➤ Status of medical tourist industry in India ➤ Any two illustrative examples of wellness retreats /spas in India
Module 4 (Credit 1) Religious and pilgrim travel	
Learning Outcomes	After learning the module, learners will be able to
	1. explain the meanings and significance of religious tourism
	2. identify the major health and medical tourist destinations and products in India
Content Outline	<ul style="list-style-type: none"> ➤ Religious sites and products in India : meaning and significance ➤ Pilgrim circuits in India- Buddhist circuit, Jain circuit, Chardham yatra etc. ➤ Any two examples of religious destinations (example Golden Temple, Ajmer Dargah etc.

Course Title	Democracy in India
Course Credits	04
Course Outcomes	After going through the course, learners will be able:
	Explain the institutional structure of Indian Democracy
	Assess the inter relation between democracy and Civil society
	Examine the challenges to Indian democracy
	Analyze the working of democracy in India
Module 1 - Historical Evolution and Constitutional Framework	
Learning Outcomes	Students will be able to: critically analyze the Preamble, Fundamental Rights, and Directive Principles of State Policy.
	Describe the federal structure of India, including the division of powers between the Centre and States
	assess the significance and impact of key constitutional amendments on Indian democracy.
Content Outline	<ol style="list-style-type: none"> 1. What is Democracy? Why Democracy 2. Basic Principles of Democracy: Rule of Law, Separation of Power, Checks and balances, Elections, Civil Liberties 3. Indian Democracy and the Constitution of India: <ol style="list-style-type: none"> a. Preamble, Fundamental Rights, Directive Principles b. Federalism in India: Division of powers between the Centre and States c. Key Amendments and their impact on democracy
Module 2- Electoral Processes and Political Parties	
Learning Outcomes	Students will be able to: Explain the electoral system and the processes involved in conducting elections.
	Examine the roles, evolution, and dynamics of national and regional political parties in India.
	Assess the role of media and technology: Students will analyze the impact of media and technology on electoral processes and outcomes.

Content Outline	<ol style="list-style-type: none"> 1. The Election Commission of India: Structure and functions 2. Electoral processes: General elections & state elections, 3. Political parties, Coalition Governments 4. Electoral reforms and challenges: Corruption, criminalization of politics, and voter behavior 5. Role of media and technology in elections
Module 3: Civil Society and Social Movements	
	<p>After going through the course, learners will be able:</p> <ul style="list-style-type: none"> Distinguish between different types of civil society movements Trace the evolution of Civil society movements in India Comprehend the issues involved with these movements
	<ol style="list-style-type: none"> 1. Definition a of civil society, Historical evolution of civil society in India 2. Key social movements: <ol style="list-style-type: none"> a. The Dalit Movement b. The Women's Movement c. The Environmental Movement 3. Impact of social media and digital activism
Module : 4 Contemporary Issues and Future of Democracy in India	
Learning outcomes	<p>After going through the course, learners will be able:</p> <ol style="list-style-type: none"> 1. understand the concepts of social justice and affirmative action and their relevance 2. analyze the impact of economic policies on democratic governance and societal well-being. 3. explore the role of civil society organizations and movements in shaping public policy and democratic practices. 4. evaluate contemporary challenges to democracy, including communalism, regionalism, and insurgency.
Course Outcome	<ol style="list-style-type: none"> 1. Social justice and affirmative action: The Case of Reservations 2. Economic Reforms and their impact on democracy 3. Right to Information Movement 4. Challenges to democracy: Communalism and regionalism

Course Title	PSYCHOLOGY APPLIED TO MODERN LIFE
Course Credits	04
Course Outcomes	After going through the course, learners will be able to
	1. Understand the relationship between interpersonal communication and adjustment
	2. Importance of relationship and overcoming loneliness
	3. Be able to bridge the gender gap in communication
	4. Understand the origins of gender difference
	5. Apply various models of career choices
Module 1(Credit 1): Interpersonal Communication	
Learning Outcomes	After learning the module, learners will be able to
	1. Discuss how interpersonal communication is important to adjustment
	2. Differentiate assertive communication from submissive and aggressive communication
Content Outline	1.1 Process of communication 1.2 Non-verbal communication 1.3 Effective communication and problems 1.4 Developing assertive communication style
Module 2(Credit 1): Friendship and Love	
Learning Outcomes	After learning the module, learners will be able to
	1. Describe the difference between face to face and internet interaction and how internet affects relationship development
	2. Discuss the personal attributes contributing to loneliness
Content Outline	2.1 Perspective on close relationship 2.2 Attraction and relationship development 2.3 Friendship 2.4 Overcoming Loneliness
Module 3(Credit 1): Gender and behavior	
Learning Outcomes	After learning the module, learners will be able to
	1. Summarize the situations regarding overall behavioral similarities and differences between males and females
	2. Describe expressive and styles of communication
Content Outline	3.1 Gender similarities and differences 3.2 Origins of Gender differences 3.3 Gender Roles 3.4 Bridge the gender gap in communication
Module 4(Credit 1): Career and Work	
Learning Outcomes	After learning the module, learners will be able to

	1. Explain the role of occupational interest inventory in career choices
	2. Discuss the importance of work life balance
Content Outline	4.1 Models of career choice and work 4.2 Coping with occupational hazards 4.3 Work life balance 4.4 Getting ahead in job game

Course Title	Understanding Gender
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> generate ideas and sensitivity about gender in a student which he/she can put into practice in daily life.
	<ul style="list-style-type: none"> recognize primary identity of person in a human society is that of gender identities.
	<ul style="list-style-type: none"> Identify root of gender inequality in Indian society lies in its patriarchy system.
Module 1(Credit 1) 1) Introduction	
Learning Outcomes	After learning the module, learners will be able to
	Define the concept of gender and the social construction of gender
	Analyze the culturally and socially constructed of gender roles
Content Outline	<ul style="list-style-type: none"> Concept of Gender Social Construction of Gender Gender Sensitization
Module 2 (Credit 1) Gender and Inequality	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Analyze the dimensions of economic gender inequality in the work sector.
	<ul style="list-style-type: none"> describe the political inequality must be more sensitive to the participation in many political area and decision-making biased gender norms.
	<ul style="list-style-type: none"> Get knowledge about inequality in health discrimination the health care.
Content Outline	<ul style="list-style-type: none"> Gender inequality in Economic sector Gender inequality in Political field Gender inequality in Health sector
Module 3 (credit 1) Gender Discrimination	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> highlight the social inequality towards gender discrimination.
	<ul style="list-style-type: none"> observe and identify gender discrimination.
	<ul style="list-style-type: none"> Explain gender oppression where one gender dominates the other unjustly or even cruelly
Content Outline	<ul style="list-style-type: none"> Societal Perpetration Domestic Violence Sexual Harassment at Workplace
Module 4 (credit 1) Gender and Policy Interventions	
	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Analyze the need for women rights and policies
	<ul style="list-style-type: none"> Examine the women's empowerment policy
Content Outline	<ul style="list-style-type: none"> Women's Reservation Policy Women's Land Rights. Women's Empowerment Policy

Course Title	मराठी लोककला प्रकार
Course Credits	4 श्रेयांक
Course Outcomes	After going through the course, learners will be able to
	1.मराठी लोककलांचे स्वरूप, संकल्पना, प्रकार अभ्यासणे
	2.तमाशा संकल्पना, स्वरूप यांचा परिचय करून घेणे
	3.जागरण-गोंधळाचे स्वरूप, प्रकार, परंपरा अभ्यासणे
	4.कीर्तन संकल्पना, स्वरूप, परंपरा, प्रकार समजून घेणे
Module 1 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	1.मराठीतील लोककला प्रकारांची संकल्पना, स्वरूप, प्रकार यांचा परिचय करून घेणे
	2.मराठीतील लोककला प्रकारांचा संक्षिप्त आढावा घेता येईल.
Content Outline	<ul style="list-style-type: none"> मराठीतील लोककलांचे स्वरूप, संकल्पना, प्रकार समजून घेणे मराठीतील लोककला प्रकारांचा संक्षिप्त आढावा घेणे
Module 2 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	1.तमाशा या लोककला प्रकाराची संकल्पना, स्वरूप व प्रकारांची ओळख होईल.
	2.तमाशा या लोककला प्रकाराचे बदलते स्वरूप समजेल.
Content Outline	<ul style="list-style-type: none"> तमाशा या लोककला प्रकाराची संकल्पना, स्वरूप व प्रकारांचा अभ्यास करणे तमाशा या लोककला प्रकाराचे बदलते स्वरूप समजून घेता येईल.
Module 3 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	1.जागरण-गोंधळ या लोककला प्रकाराचे स्वरूप, संकल्पना यांचा परिचय होईल.
	2.जागरण-गोंधळाचे विविध प्रकार अभ्यासता येतील.
Content Outline	<ul style="list-style-type: none"> जागरण-गोंधळ या लोककला प्रकाराचे स्वरूप, संकल्पना समजून घेणे. जागरण-गोंधळाचे प्रकार अभ्यासणे
Module 4 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	1.कीर्तन या लोककला प्रकाराची संकल्पना, स्वरूप व परंपराचा परिचय करून घेणे.
	2.कीर्तन या लोककला प्रकाराचे बदलते स्वरूपाची ओळख होईल.

Content Outline	<ul style="list-style-type: none"> • कीर्तन या लोककला प्रकारची संकल्पना, स्वरूप व परंपरा समजून घेणे • कीर्तन या लोककला प्रकाराचे विविध प्रकार अभ्यासणे
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Course Title पाठ्यक्रम शीर्षक	भारतीय लोक-कथाएँ
Course Credits पाठ्यक्रम श्रेयांक	4
Course Outcomes पाठ्यक्रम परिणाम	<p>After going through the course, learners will be able to</p> <p>पाठ्यक्रम सीखने के उपरांत छात्राएं सक्षम होंगी ।</p> <ol style="list-style-type: none"> 1. छात्राएं भारत की लोक-कथा परम्परा से परिचित होंगी. 2. छात्राएं लोककथाओं में निहित मानवीय मूल्यों एवं सरोकारों से अवगत होंगी. 3. छात्राएं भारत की लोक-संस्कृति से परिचित होंगी. 4. छात्राएं कथा-कथन और श्रवण की मौलिक परम्परा से समृद्ध होंगी. <p>निर्धारित पाठ्यपुस्तक : भारत की लोक कथाएं- पेंगविन प्रकाशन, दिल्ली, 2017 - बचपन सोसायटी फॉर चिल्ड्रेन लिटरेचर एंड कल्चर द्वारा तैयार की गई.</p>
Module 1 (Credit 1)	भारत की प्रांतीय लोककथाएं 1-
Learning Outcomes पाठ्यक्रम- अध्ययन के परिणाम	<p>After learning the module, learners will be able to</p> <p>इस इकाई के अध्ययन के उपरांत छात्राएं सक्षम हुईं.</p> <ol style="list-style-type: none"> 1. छात्राएं भारत की लोक-कथा परम्परा एवं लोक-संस्कृति से परिचित हुईं. 2. छात्राएं कथा-कथन और श्रवण की मौलिक परम्परा एवं उनमें अभिव्यक्त मानवीय सरोकारों से अवगत हुईं.
Content Outline सामग्री की रूपरेखा	<ul style="list-style-type: none"> • दुर्भाविना का फल - उत्तराखंड - कुसुमलता सिंह • बुद्धिमान जुलाहा - उत्तर प्रदेश - सुरेखा पाण्डीकर • एक दिन देख लूंगा- राजस्थान- शशि जैन • बड़ों का सत्कार - तमिलनाडु- कुसुमलता सिंह
Module 2 (Credit 1)	भारत की प्रांतीय लोककथाएं 2-
Learning Outcomes पाठ्यक्रम- अध्ययन के परिणाम	<p>After learning the module, learners will be able to</p> <p>इस इकाई के अध्ययन के उपरांत छात्राएं सक्षम हुईं.</p> <ol style="list-style-type: none"> 1. छात्राएं विविध मानवीय भावों-अनुभावों से परिचित हुईं. 2. छात्राएं भारतीय लोक-संस्कृति के विविध पक्षों एवं उनके महत्त्व से अवगत हुईं.

Content Outline सामग्री की रूपरेखा	<ul style="list-style-type: none"> • हंसने रोने का रहस्य - गुजरात - उषा सिंह • जब हँसे तो मोती - गोवा - सुरेखा पाणंदीकर • हंसने वाली मछली- कश्मीर - गिरिजारानी अस्थाना • धर्म की खोज - महाराष्ट्र-माधुरी टिल्लू
Module 3 (Credit 1) भारत की प्रांतीय लोककथाएं 3-	
Learning Outcomes पाठ्यक्रम- अध्ययन के परिणाम	<p>After learning the module, learners will be able to</p> <p>इस इकाई के अध्ययन के उपरांत छात्राएं सक्षम हुईं</p> <p>1. छात्राएं लोककथाओं में अभिव्यक्त लौकिक-अलौकिक घटनाओं के माध्यम से लोकमान्यता एवं लोक-परंपरा से अवगत हुईं.</p> <p>2. छात्राएं लोककथाओं में अभिव्यक्त संदेशों से परिचित हुईं.</p>
Content Outline सामग्री की रूपरेखा	<ul style="list-style-type: none"> • अक्का और राक्षस राजा (कर्नाटक) - कुसुमलता सिंह • चालाक चंदू (केरल) - पौलोमी मिश्रा जिंदल • भूत की मुसीबत (बंगाल) - सरोजिनी • जिंदा भूत (आंध्र प्रदेश)- गिरिजारानी अस्थाना
Module 4 (Credit 1) भारत की प्रांतीय लोककथाएं 4-	
Learning Outcomes पाठ्यक्रम- अध्ययन के परिणाम	<p>After learning the module, learners will be able to</p> <p>इस इकाई के अध्ययन के उपरांत छात्राएं सक्षम हुईं</p> <p>1. छात्राएं मनुष्य और प्रकृति के अन्तःसंबंधों से परिचित हुईं.</p> <p>2. छात्राएं मानव-जीवन में प्रकृति के महत्व से अवगत हुईं.</p>
Content Outline सामग्री की रूपरेखा	<ul style="list-style-type: none"> • स्वप्न तरु (बिहार)- उषा सिंह • कौन है पति (अरुणाचल प्रदेश)- सुरेखा पाणंदीकर • बारिश हुई मोर बना (असम) - सुरेखा पाणंदीकर • नागुराई और नखलिपि (त्रिपुरा)-

Assignments / Activities towards Comprehensive Continuous Evaluation (CCE)

निर्धारित पाठ्यक्रम के अनुसार : विश्वविद्यालय हिंदी विभाग अथवा महाविद्यालय के परीक्षा विभाग द्वारा सुनिश्चित टेस्ट, ट्यूटोरियल या मौखिकी/ प्रोजेक्ट/ सेमिनार/ सिनेमा/नाटक या पुस्तक परीक्षण/ शैक्षिक भ्रमण का प्रतिवेदन/ भेट वार्ता/ ग्रंथालय, हिंदी संस्थान से भेट/ साक्षत्कार : लेखक, कवि, आलोचक, कलाकार आदि/ विधा विशेष या लेखक विशेष का विस्तृत परिचय/ बैंक, पोस्ट ऑफिस, रेल्वे स्टेशन कार्यालय, आकाशवाणी आदि सरकारी कार्यालयों में हिंदी में कामकाज के जायजे का प्रतिवेदन/ अंग्रेजी या प्रादेशिक भाषा से किसी कहानी, या लघु कथाओं का हिंदी में अनुवाद (लगभग 15 से बीस पृष्ठ में अनुवाद) अंतर्वस्तु के अनुरूप संबद्ध अध्यापक के निर्देशानुसार न्यूनतम 15 से 20 घंटे प्रशिक्षण वृत्ति (Internship/ Apprenticeship/ on Job Training/ Project) आदि.

संदर्भ ग्रंथ -

1. भारत की लोक कथाएं- ए. के. रामानुजन- नेशनल बुक ट्रस्ट, नई दिल्ली, 2011
2. भारत की लोक कथाएं- पृथ्वीशर गायन- चिल्ड्रेन बुक ट्रस्ट, नई दिल्ली, 2000
3. 21 श्रेष्ठ लोक कथाएं- आचार्य संजीव वर्मा सलिल, डायमंड बुक्स, 2022
4. पिरथवी भारी है- (बुन्देली लोक कथाओं का पुनर्लेखन)- रमेश दत्त दुबे- नेशनल बुक ट्रस्ट, नई दिल्ली, 1995
5. विश्वप्रसिद्ध लोककथाएं- धरमपाल बारिया- मनोज पब्लिकेशन, नई दिल्ली, 1999
6. अरुणाचल प्रदेश: प्रतिनिधि निशी लोककथाएं- जोरां आनिया ताना, उत्तर प्रदेश भाषा संस्थान, लखनऊ, 2019

7. कर्नाटक की लोक कथाएं एवं प्रश्नोत्तरी- रचना भोला यामिनी- डायमंड पॉकेट बुक्स, नई दिल्ली, 2004
8. बिहार की लोककथाएं- राम कृष्ण शर्मा- कैटर पिल्लर पब्लिशर्स, दिल्ली, 2009
9. भारत के आदिवासी क्षेत्रों की लोककथाएं- शरद सिंह- नेशनल बुक ट्रस्ट, नई दिल्ली, 2009
10. मध्य प्रदेश की लोक कथाएं- वसंत निरगुणे, प्रभात प्रकाशन, नई दिल्ली, 2012
11. लोक साहित्य का अध्ययन - डॉ. सत्येन्द्र
12. लोक साहित्य की भूमिका - कृष्ण देव उपाध्याय
13. मध्ययुगीन हिन्दी साहित्य का लोकतात्विक अध्ययन - डॉ. सत्येन्द्र
14. लोक साहित्य के स्वरूप का सैद्धान्तिक विवेचन - डॉ. नारायण चौधरी, अमन प्रकाशन, 104 ए/118, राम बाग, कानपुर - 208012
15. लोक साहित्य में समाज और संस्कृति - मोतीराज राठौर, सरस्वती प्रकाशन, 128/106, जी. ब्लाक, किदवई नगर, कानपुर - 11
16. भारतीय लोक साहित्य की रूपरेखा - दुर्गा भागवत, (अनुवादक - डॉ. स्वर्णकांता 'स्वर्णिम'), भूमिका प्रकाशन, 2/38, अंसारी मार्ग, दरियागंज, नयी दिल्ली - 21
17. लोक - साहित्य की भूमिका - डॉ. कृष्णदेव उपाध्याय, साहित्य भवन (प्रा.) लिमिटेड, इलाहाबाद - 3
18. हिंदी उपन्यास और जनजातीय जीवन - शिवदत्ता वावलकर, सामयिक प्रकाशन, नई दिल्ली
19. लोक साहित्य के प्रतिमान - डॉ. कुन्दनलाल उप्रेती, भारत प्रकाशन मन्दिर, अलीगढ़
20. लोक साहित्य की सांस्कृतिक परंपरा - डॉ. मनोहर शर्मा, रोशनलाल जैन एण्ड सन्स, चैनसुखदास मार्ग, जयपुर - 21
21. हिंदी लोक साहित्य - गणेशदत्त सारस्वत, विद्या विहार, 87/40 ए, आचार्य नगर, कानपुर - 6
22. लोक साहित्य विज्ञान - डॉ. सत्येन्द्र, हिंदी साहित्य मन्दिर, 160, शिक्षक कॉलोनी, दुर्गा मन्दिर रोड, चौपासनी, जोधपुर (राजस्थान)
23. भारतीय लोक - साहित्य - श्याम परमार, राजकमल प्रकाशन प्रा. लि., 1 बी, नेताजी सुभाष मार्ग, नई दिल्ली - 110002
24. लोक साहित्य : अर्थ और व्याप्ति - सुरेश गौतम, अमन प्रकाशन, 104 ए/118, राम बाग, कानपुर - 12
25. लोक साहित्य - सुरेश गौतम, अमन प्रकाशन, 104 ए/118, राम बाग, कानपुर-208012
26. लोक साहित्य - शशीकांत सोनवने, अमन प्रकाशन, 104 ए/118, राम बाग, कानपुर-208012
27. लोक साहित्य विविध आयाम एवं नयी दृष्टि - डॉ. जयश्री गावित, अमन प्रकाशन, 104 ए/118, राम बाग, कानपुर - 208012

Course Title	Shreemad bhagvadgeeta (Adhyay 1-6)
Course Credits	4
Course Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> describe about writer, time and various stories related to Shrimadbhagvatgeeta. discuss principals and theories of Shrimadbhagvatgeeta. Interpret shlokas of Shrimadbhagvatgeeta compare philosophy of Geeta and other Indian philosophies. appraise actual meaning of Karmayoga, Gyanyoga and Bhaktiyoga. formulate significance and relevance of teaching of
Module 1 (Credit 1) Introduction of Shreemadbhagvadgeeta	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> define philosophy of Geeta. explain concept of Triyoga in Shrimadbhagvatgeeta.
Content Outline	<ul style="list-style-type: none"> श्रीमद्भगवद्गीतापरिचयः श्रीमद्भगवद्गीतादाशदशः त्रवर्णाः श्रीमद्भगवद्गीतामानव जीवनमूल्यः श्रीमद्भगवद्गीतायां वर्णनतः ज्ञान - कर्म - भक्तिः
Module 2 (Credit 1) Shreemadbhagvadgeeta -Text	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> describe various philosophies described in Geeta. interpret the actual meaning of Sankhyayoga.
Content Outline	<ul style="list-style-type: none"> श्रीमद्भगवद्गीता अध्याय - १,२ (explanation, references, examples, implication and implementation)
Module 3 (Credit 1) Shreemadbhagvadgeeta -Text	

Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • select Path of righteous virtues in human beings daily life..
	<ul style="list-style-type: none"> • illustrate actual concept of Karmayoga and Divyagyan
Content Outline	<ul style="list-style-type: none"> • श्रीमद्भगवद्गीता अध्याय - ३,४ (explanation, references, examples, implication and implementation)
Module 4 (Credit 1) Shreemadbhagvadgeeta -Text	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Define Bhaktiyoga as a sweet and simple way of life.
	<ul style="list-style-type: none"> • Explain about the way of 'Dhyanyoga'.
Content Outline	<ul style="list-style-type: none"> • श्रीमद्भगवद्गीता अध्याय - ५,६ (explanation, references, examples, implication and implementation)

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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

1- Home Assignment - 20 Marks

2- Presentation - 10 Marks

3- Poetry Recitation- 10 Marks

4- Class Test on Multiple Choice Questions- 10 Marks Internal Assessment Total:50 marks

Course Title	શીખો ગુજરાતી -માધ્યમિક
Course Credits	4
Course Outcomes	<p>After going through the course, learners will be able to</p> <ul style="list-style-type: none"> ગુજરાત પ્રદેશ અને તેની ભૌગોલિક સીમાઓ વિષે માહિતગાર થશે. (શબ્દભંડોળ સંદર્ભે) ગુજરાતી ભાષાના ઉદ્ભવ અને વિકાસથી માહિતગાર થશે . ગુજરાતનાં પ્રમુખ અભ્યારણો, પહાડો અને નદીઓ વિશે જાણશે. ગુજરાતનાં પ્રમુખ વ્રત અને તહેવાર વિષે સમજશે ગુજરાતી ગીતોનો સમૃદ્ધ વારસાનો પરિચય મેળવશે.
Module 1 (Credit 1)	ગુજરાત - પ્રદેશ, ભાષા અને સંસ્કૃતિ
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> ગુજરાત પ્રદેશનો ઐતિહાસિક,ભૌગોલિક અને સામાજિક ,સાંસ્કૃતિક પરંપરાનો પરિચય મેળવશે . ગુજરાત પ્રદેશની ભાષા અને પ્રાંતીય બોલીઓથી માહિતગાર થશે..
Content Outline	<ul style="list-style-type: none"> ગુજરાત પ્રદેશની સીમાઓ અને તેની સંસ્કૃતિ (ઉત્તર ,દક્ષિણ,મધ્ય ગુજરાત અને સૌરાષ્ટ્ર) ગુજરાતી ભાષાનો ઉદ્ભવ અને વિકાસ. ગુજરાત પ્રદેશની ભાષા અને પ્રાંતીય બોલીઓ.
Module 2 (Credit 1)	ગુજરાત :સાંસ્કૃતિક પ્રવાસ
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> ગુજરાતનાં જોવાલાયક સ્થળોના ઇતિહાસ અને સાંસ્કૃતિક વારસાથી સમૃદ્ધ થશે. અભ્યારણો, નદીઓ ,મંદિર અને તીર્થ સ્થાન અને પહાડોની માહિતીથી જ્ઞાત થશે.
Content Outline	<ul style="list-style-type: none"> ગુજરાતનાં પર્યટક સ્થળો, અભ્યારણો, નદીઓ અને પહાડો. <p>મોઢેરા -સૂર્યમંદિર સોમનાથ , દ્વારકા , અંબાજી ,અડાવજ વાવ , પાટણ ,અરવલ્લી ,ડાંગ ના જંગલો ,ગિરનાર ,જૂનાગઢ , ગિરનું જંગલ , કચ્છ નું સફેદ રણ , કાળો ડુંગર મંદિર અને તીર્થ સ્થાન . ભાવનગર અને બરોડા -કલાનો વારસો.</p>

Module 3 (Credit 1) ગુજરાતના ઉત્સવોનું સાંસ્કૃતિક મહત્વ	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> ગુજરાતમાં ઉજવાતા વિવિધ ઉત્સવો સાથે જોડાયેલી સંસ્કૃતિથી વાકેફ થશે.
	<ul style="list-style-type: none"> ગુજરાતના ઉત્સવો સાથે જોડાયેલી માન્યતા , વિશેષતા ,મહત્વ અને લોકવાયકા વિષે જાણશે.
Content Outline	ગરબા -ગરબી , રાસ ઉત્સવ સાથે જોડાયેલી લોકગાથા અને ભવાઈ . દિવાળી અને અન્ય ઉત્સવોનું સાંસ્કૃતિક મહત્વ
Module 4 (Credit 1) ગુજરાતી ગીત -સંગીત અને અન્ય લોકકલા	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> ગુજરાતી ગીતોમાં આલીખાયેલી સંસ્કૃતિથી પરિચિત થશે.
	<ul style="list-style-type: none"> વિવિધ પ્રસંગે ગવાતાં ગુજરાતી ગીતોને જાણશે.
Content Outline	ગીતોનો વારસો: હાલરડાં , પ્રભાતિયાં, ઉખાણાં વગેરે જન્મથી મરણ સુધી ધી ગવાતા ગીતો.

- ❖ 50 ગુણની (માર્ક્સની) આંતરિક પરીક્ષા લેવાશે.
- ❖ આંતરિક પરીક્ષામાં પાસ થવું અનિવાર્ય છે.
- ❖ 50 ગુણની બહિર્ગત પરીક્ષા લેવાશે .જેમાં પાસ થવું અનિવાર્ય છે.

આંતરિક પરીક્ષા

PPT , પ્રોજેક્ટ , પ્રદર્શન , નવરાત્રીની ઉજવણી ,ગુજરાતી ગીતોનો કાર્યક્રમ , શૈક્ષણિક પ્રવાસ

Activities :

1. ગુજરાત પ્રદેશની મુલાકાત ગોઠવવી.
2. ગુજરાત પ્રદેશની વિશિષ્ટતા બતાવતી ફિલ્મો બતાવવી.
3. ગુજરાતી નાટકો બતાવવા
4. ગુજરાતની માહિતી માટે PPT તૈયાર કરાવી.

સંદર્ભ ગ્રંથો:

1. 'ગુજરાત પરિચય' અધતન આવૃત્તિ- 2019 પ્રા. ડૉ. બી.સી. રાઠોડ, અક્ષર અકાદમી, ગાંધીનગર.
2. 'ગુજરાત પરિચય' લેખક અને સંપાદક રંજન મહેશ આહજોલિયા જ્ઞાન પ્રકાશન. કુડાસણ, ગાંધીનગર, આવૃત્તિ- 2028
3. 'ગુજરાતી લેખન' લેખક સંપાદક પ્રા.ડૉ. બી.સી. રાઠોડ અને પ્રા. ડૉ. પ્રતિભા શાહ. અક્ષર પબ્લિકેશન, અમદાવાદ.
4. ગજરાત, ગુજરાત રાજ્ય સરકારનું પોર્ટલ.
5. ભાષા પરિચય અને ગુજરાતી ભાષાનું સ્વરૂપ. જયંત કોઠારી, યુનિ. ગ્રંથનિર્માણ બોર્ડ, અમદાવાદ.
6. ગુજરાતીની ભાતીગળ ઝલક (માધ્યમિક પાઠ્ય પુસ્તક) ઉષા નાયર, ભારતીય ભાષા સંસ્થાન, મૈસૂર ભારત.
7. ભાષાવિજ્ઞાન અને ભાષા કૌશલ્યોનું શિક્ષણ, યોગમ્વ વ્યાસ, મુદ્રક, ઉમિયા પ્રિન્ટરી, અમદાવાદ
8. થોડાંક વ્યાકરણ વિચાર, હરિવલ્લભ ભાયાણી પ્રકાશક શિવજી આશર વોરા એન્ડ કંપની, ગાંધી રોડ, અમદાવાદ.

COURSE SYLLABUS
Semester II
2.3 OEC

Course Title	Environmental Studies
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> Understand the scope of environmental studies.
	<ul style="list-style-type: none"> Analyze the factors affecting population explosion and human health.
	<ul style="list-style-type: none"> Create awareness about the over exploitation of forest, water, food and energy resources.
	<ul style="list-style-type: none"> Evaluate the causes for different types of pollutions and remedies to control pollution.
Module 1 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Understand environment studies
	<ul style="list-style-type: none"> Know the effect of population explosion
Content Outline	1.1 Environment studies: Meaning, Definition, Scope and Importance. 1.2 Population explosion: Population growth, Factors affecting density of population, population explosion, family welfare programme, Environment and human health.
Module 2 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Understand various natural resources on earth
	<ul style="list-style-type: none"> Develop awareness in conservation of natural resources
Content Outline	2.1 Natural Resource: Types- Renewable and Non-Renewable. 2.2 Forest resource: Use and over-exploitation, Deforestation – Causes and effects, Timber extraction, Mining, Dams and their effects on forest and Tribal people. 2.3 Water resource: use and exploitation of surface and groundwater, Floods and Droughts, Dams- benefits and problems, water conservation, Water management. Food resource: World food problem, overgrazing, Effects of modern agriculture, Fertilizer- pesticide problem, water -logging, Salinity. 2.1 Energy resources: Growing need for energy, Renewable and Non-Renewable energy sources, hydroelectricity, Role of individual in conservation of natural resources, Equitable use of resources for a sustainable lifestyle.

Module 3 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Understand the concept of ecosystem
	<ul style="list-style-type: none"> • Develop awareness towards forest ecosystems, grassland ecosystems and aquatic ecosystems
Content Outline	<p>3.1 Ecosystem: Meaning, concept, structure, function, producers, consumers, decomposers, food chain, food webs and ecological pyramids.</p> <p>3.2 Introduction, types, characteristic features, structure and function of the Forest ecosystem.</p> <p>3.1 Introduction, types, characteristic features, structure and function of the Grassland ecosystem</p> <p>3.2 Introduction, types, characteristic features, structure and function of the Aquatic ecosystem (ponds, streams, lakes, rivers, ocean estuaries).</p>
Module 4 (Credit 1)	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Understand different types of pollution
	<ul style="list-style-type: none"> • Develop awareness prevention of various pollution
Content Outline	<p>4.1 Air pollution: Meaning, Definition, types, causes, effects and control measures.</p> <p>4.2 Water pollution: Meaning, Definition, types, causes, effects and control measures.</p> <p>4.3 Soil pollution: Meaning, Definition, types, causes, effects and control measures.</p> <p>4.4 Noise pollution: Meaning, Definition, types, causes, effects and control measures.</p> <p>4.5 Marine pollution: Meaning, Definition, types, causes, effects and control measures.</p> <p>4.6 Disaster Management: Floods, earthquake cyclone and landslides.</p> <p>Role of individual in prevention of pollution.</p>

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE) :

Internal – 50 Marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External – 50 Marks

References:

- Rangarajan, C.A.; Perspective in Economics, S.Chand & Sons, New Delhi
- Cherunilam, Francis; Business Environment - Text and Cases, Himalaya Publishing House.
- Aswathappa, K.; Essentials of Business Environment, Himalaya Publishing House, New Delhi.
- Agarwal, K.C., 2008, Environmental Biology, Nidhi Publishers, Bikaner
- Bharucha Erach, 2006, The Biodiversity of India, Mapin Publishing Pvt. Ltd. Ahmedabad.
- Brunner R.C., Hazardous waste incineration, McGraw Hill Inc
- Clark R., 2001, Marine Pollution, Oxford University Press
- Jadhav H.&Bhosale, V.M, 2015, Environment Protection and Laws, Himalaya Publishing House, Pvt. Ltd., New Delhi
- Odum E. P., 2004, Fundamentals of Ecology, (5th Revised Edition), Brooks/Cole
- Mhaskar A.K, Matter Hazardous, Techno-Science Publications (Text Book).
- Survey of the Environment, The Hindu (Magazine)
- Trivedi R.K, Goel P.K, Introduction to Air Pollution, Techno-Science Publications (Text Book).

COURSE SYLLABUS**Semester II****2.3 OEC**

Course Title	Business Statistics
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> Describe the key terminology, concepts, tools, and techniques used in business statistical analysis Interpret and evaluate numerical and quantitative issues in business. Analyze the relationship between two variables Analyze the tabulation and classification of data Represent different types of data through graphs
Module 1 (Credit 1) Introduction to Statistics, Measures of Central Tendency and Dispersion	
Learning Outcomes (Specific related to the module)	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Comprehend the basic concepts of Business Statistics and its Significance Solve problems associated with different measures of central tendency and dispersion
Content Outline	1.1 Definition of Business Statistics, Importance of business statistics, Needs of Data Collection and Analysis 1.2 Mean, Median, Mode and its merits and demerits with practical example 1.3 Measures of dispersion- Range, Mean Deviation, Standard Deviation, 1.4 Variance, Quartile Deviation with merits and demerits
Module 2 (Credit 1) Correlation and Regression	
Learning Outcome	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Imbibe skills needed for quantitative application in business situations. Estimate correlation and regression in two variable analysis
Content Outline	2.1 Correlation merits and demerits, 2.2 Types of Correlation –(simple correlation, coefficients of Correlation- Karl Pearson and Simple rank Correlation) 2.3 Regression Analysis –Estimation of regression line, interpretation of regression coefficients with practical example
Module 3 (Credit 1) Introduction to different types of data	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Describe the relevance of data Evaluate the merits of different methods of data collection
Content Outline	3.1 Relevance of data in the current scenario 3.2 Types of data : primary and secondary data 3.3 Methods of data collection: Questionnaire method, Interview method, case study method in brief 3.4 Sources of secondary data collection with merits and limitations
Module 4 (Credit 1) Presentation and tabulation of data	
Learning Outcome	After learning the module, learners will be able to

	<ul style="list-style-type: none"> Recognize the data classification and tabulation. Represent the data using different types of graphs
Content Outline	4.1 Classification of data 4.2 Frequency distribution: Discrete and continuous series 4.3 Tabulation of data 4.4 Graphical representation of data: Bar diagram, pie diagram, histogram, frequency polygon

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE) :

Internal – 50 Marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External – 50 Marks

References:

- S. C. Gupta (2016) Fundamentals of Statics by Himalaya Publishing House
- Field, Andy (2013). IBM SPSS Statistics UK: Sage Publication Pvt.
- Gupta, S.P. (2012). Statistical Methods New Delhi: Sultan Chand and Son.
- Patri, Digmabar and Patri, D. N. (2011). Statistical Methods, New Delhi: Kalayani publisher.
- Graham, Alan (2010). Statistics: A Complete Introduction ,UK: Teach Yourself
- Arora, PN, Arora, Sumeet and Arora, Amit:(2009) “Managerial Statistics”, S. Chand, Ist Ed., 2009.
- Bharadwaj, RS: (2008) “Business Statistics” , Excel books, 2nd Ed,
- Gupta, .S.C & V.K.Kapoor (2007) Fundamentals of Applied Statistics, Delhi: S. Chand & Sons.
- Gupta, .S.C & V K. Kapoor (1993) Fundamentals of Applied Statistics, Delhi: S. Chand & Sons.

COURSE SYLLABUS
Semester II
2.3 OEC

Course Title	Principles of Marketing
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> • Get acquainted with the Marketing Concepts
	<ul style="list-style-type: none"> • Gain knowledge about Market Segmentation
	<ul style="list-style-type: none"> • Examine the principles of Marketing Mix
	<ul style="list-style-type: none"> • Evaluate the strategies of Marketing Research.
Module 1 (Credit 1) Introduction to Marketing	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Define the concepts of marketing and understand the role and functions of marketing
	<ul style="list-style-type: none"> • Gain insights on social media and digital marketing.
Content Outline	Introduction to Marketing 1.1 Marketing Concept, Scope of Marketing, Evolution of Marketing, 1.2 Role and Importance of Marketing, Objectives and Functions of Marketing. 1.3 Social Media Marketing and Digital Marketing.
Module 2 (Credit 1) Market Segmentation	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Analyze the process of market segmentation.
	<ul style="list-style-type: none"> • Develop acumen on bases for market segmentation.
Content Outline	Market Segmentation 2.1 Market Segmentation: Introduction, Scope and need 2.2 Importance and Process of Market segmentation 2.3 Bases for Market Segmentation – Geographic, Demographic, Economic, Psychographic, Socio-cultural
Module 3 (Credit 1) Marketing Mix	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Examine the importance of marketing mix.
	<ul style="list-style-type: none"> • Gain insights and applicability of marketing mix

Content Outline	Marketing Mix 3.1 Marketing Mix – Concept, Role and importance of Marketing Mix 3.2 Product - Price - Place - Promotion - Packaging - Positioning - People - Process - Physical evidence
Module 4 (Credit 1) Marketing Research	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Get acquainted with the scenario of Marketing Research.
	<ul style="list-style-type: none"> Analyze the process of Marketing Research.
Content Outline	Marketing Research 4.1 Meaning and definition, scope and objectives of Marketing Research 4.2 Sources of collecting marketing data, Procedure of Marketing Research 4.3 Scientific methods of Marketing Research

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE) :

Internal – 50 Marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External – 50 Marks

References

- Philip Kotler, Principles of Marketing, Prentice Hall of India Pvt. Ltd, New Delhi
- Dr. N Rajan Nair & Sujith R Nair, Marketing, Sultan Chand & Sons, New Delhi.
- Dr. P. C Pardeshi, Marketing Management, Nirali Publication, Pune
- Dr. P. C Pardeshi, Principles of Marketing Management, Nirali Publication, Pune.
- Gandhi J.V., Marketing, Tata McGraw Hill, New Delhi.

COURSE SYLLABUS

Semester II

2.3 OEC

Course Title	Fundamentals of Accountancy Paper II
Course Credits	4
Course Outcomes	<p>After going through the course, learners will be able</p> <ul style="list-style-type: none">• To create awareness about basic accounting concepts, principles, and conventions.• To understand the classification of expenditure into Capital, Revenue and Deferred Revenue Expenditure.• To understand the purpose of a Trial Balance.• To understand the purpose of preparing the Final Accounts of Sole Proprietary Concerns.
Module 1 (Credit 1) Concepts & Conventions	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none">• Understand the meaning of Basic accounting concepts, principles and conventions.• Understand implications while recording transactions and events.
Content Outline	<p>1.1 Theory: Identify three fundamental accounting assumptions: Going Concern, Consistency and Accrual.</p>
Module 2 (Credit 1) Concepts of Capital and Revenue	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none">• Understand classification of expenditure into Capital, Revenue and Deferred Revenue Expenditure• Understand Concept for classification of expenditure and receipts.• Understand the distinction between Capital and Revenue Receipts/Expenditure.• Understand the linkage of such distinction with the preparation of Final accounts.
Content Outline	<p>2.1 Theory: Meaning of Receipts & Expenditures and Capital & Revenue, Types of Receipts and Expenditures. 2.2 Problems on: Classification of Items of Receipts, and Expenditure.</p>
Module 3 (Credit 1) Trial Balance	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none">• Understand what is a trial balance and what purpose it can serve.• learn the technique of taking balances from ledger accounts to prepare trial balance.• Technique of preparation of Trial Balance.

Content Outline	3.1 Theory: Concept and Format of a Trial Balance. 3.2 Problems on: Preparation of Trial Balance.
Module 4 (Credit 1) Final Accounts of Sole Proprietary Concerns	
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none"> Understand the purpose of preparing the Final Accounts of Sole Proprietary Concerns. Learn the items to be included in Final Accounts of Sole Proprietary Concerns. Draw Final Accounts of Sole Proprietary Concerns.
Content Outline	4.1 Theory: Introduction, purpose of preparing the Final Accounts of Sole Proprietary Concerns. 4.2 Problems on: Preparing the Final Accounts of Sole Proprietary Concerns.

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE) :

Internal – 50 Marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External – 50 Marks

References :

- Ainapure, 2011, Advance Accounting, Manan Prakashan -Mumbai
- Choudhary, 2011, Corporate Accounting, Sheth Publishers, - Mumbai
- Kishnadwala, 2008, Financial Accountancy & Management, Vipul Prakashan, Mumbai.
- R.L.Gupta, 2014, Advance Accountancy, Sultan Chand & Sons – Delhi
- Shukla & Grewal, 2018, Advance Accountancy, S. Chand & Co – Delhi

COURSE SYLLABUS**Semester II****2.3 OEC**

Course Title	Island Destinations in India
Course Credits	4 Credits
Course Outcomes	After going through the course, learners will be able to: <ul style="list-style-type: none">• Explore Island destinations in India• Study the concept of Island Tourism• Identify the documents required for Island travel• Determine the growing popularity of Adventure sports at various Island destinations in India.
Module 1(Credit 1) Island Tourism	
Learning Outcome	After learning the module, learners will be able to: <ul style="list-style-type: none">• Explore the concept of Island Tourism and upcoming Island destinations in India.
Content Outline	1.1 Island Tourism in India 1.2 Adventure Tourism in India 1.3 Reasons for the growing popularity of Island Destinations
Module 2(Credit 1) Island Destinations in West and North-East India	
Learning Outcome	After learning the module, learners will be able to : <ul style="list-style-type: none">• Identify and explore the Island destinations - Chorao and Divar Islands (Goa) and Majuli Island (Assam)
Content Outline	2.1 How to reach 2.2 Best season to visit 2.3 Places of tourist interest 2.4 Adventure activities 2.5 Island Cuisine and shopping 2.6 Island Documentation Required
Module 3 (Credit 1) Island Destinations in South India	
Learning Outcome	After learning the module, learners will be able to: <ul style="list-style-type: none">• Identify and explore the Island destinations – Munroe Island (Kerala) and Rameshwaram Island and Pamban Island(Tamil Nadu)
Content Outline	3.1 How to reach 3.2 Best season to visit 3.3 Places of tourist interest 3.4 Adventure activities 3.5 Island Cuisine and shopping 3.6 Island Documentation Required
Module 4 (Credit 1) Islands in Arabian Sea and Bay of Bengal	

Learning Outcome	After learning the module, learners will be able to:
	<ul style="list-style-type: none"> • Identify and explore the Island destinations : • Agatti Islands (Lakshadweep) • Havelock Island, Port Blair, Ross and Neil Islands (Andaman) • Great Nicobar Island (Nicobar)
Content Outline	4.1 How to reach 4.2 Best season to visit 4.3 Places of tourist interest 4.4 Adventure activities 4.5 Island Cuisine and shopping 4.6 Island Documentation Required

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)-

Internal: 50 marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External: 50 marks

REFERENCES

- Bharadwaj, D.S / Kandari O.P, (1998) Domestic Tourism In India, Indus Publishing Co. New Delhi
- Bindloss Joe/Cannon Teresa, (2006) India, Lonely Planet Publications, South Carolina, USA
- Choudhary Vikash, (2010) Island Tourism, Centrum Press, New Delhi
- Dalal, R / Datta, P/ Koshy, A (2014) Eyewitness Travel Guide – India, Dorling Kindersley Ltd. London
- Mukerji Sarit Kumar, (2016) Islands of India, Publications Division, Government of India, New Delhi

COURSE SYLLABUS**Semester II****2.3 OEC**

Course Title	NGO Governance
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none">• Study the management of NGOs with respect to its workers.• Enable students to learn about governance and it's impact.• Explore various agencies which provide findings to NGOs.• Hands on training.
Module 1(Credit 1). HR Development	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none">• Learn about human resource management and it's different aspects.
	<ul style="list-style-type: none">• Study how staff development plays a crucial role in successful running of an NGO.
Content Outline	1.1 Human Resource Management, 1.2 Human Resource Policy, 1.3 Staffing and salaries, 1.4 Staff Development.
Module 2(Credit 1). NGO Administration	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none">• Determined the importance of governance.• Study different governance structures.
Content Outline	2.1 Governance concepts, 2.2 challenges, 2.3 Perspectives and Ethical Concern, 2.4 Impact of different governance structures, 2.5 Good Governance: Code and Accountability.
Module 3(Credit 1) Co-ordinating Agencies, Funding Agencies and Schemes	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none">• Create awareness about various funding agencies.• Study the impact of funding agencies on NGOs.
Content Outline	3.1 NABARD and Human Rights Commission, Schemes for NGOs under the Government of India
Module 4 (Credit 1) Practical Work	
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none">• Incorporate practical training and learn how management of an NGO works.• Develop the sense of responsibility and help society at large.

Content Outline	4.1 Getting associated with an NGO and work for 20 hours.
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)-

Internal: 50 marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External Assessment: 50 marks

REFERENCES

- Lewis, D. (2014). NGO Management: The Earthscan Companion. Routledge.
- Gudorf, P. L., & Dohan, M. J. (2019). Strategic Planning in Nonprofit Organizations: A Content Analysis of the Literature. *Administration & Society*, 51(8), 1246–1276.
- Ministry of Corporate Affairs, Government of India. (2020). Guidelines for Registration of NGOs in India. Retrieved from [URL]
- International Center for Not-for-Profit Law (ICNL). (2021). Global Trends in NGO Law. Retrieved from [URL]

COURSE SYLLABUS

Semester II

2.3 OEC

Course Title	Fundamentals of Corporate Social Responsibility in India
Course Credits	4 Credits
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none">• Understand the concept of Corporate Social Responsibility, its significance and importance in India.
	<ul style="list-style-type: none">• Take part in philanthropic causes and provide positive social values.
Module 1 (Credit 1) Corporate Social Responsibility	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none">• Create a culture built on doing good.• Understand the legalities pertaining to CSR.
Content Outline	1.1 Introduction to CSR 1.2 Evolution of CSR 1.3 CSR and social legitimacy 1.4 Moral and economic arguments for CSR
Module 2 (Credit 1) Challenges and Impact of CSR	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none">• Create a positive impact on society and deliver values, whether social, environmental or economic.• Take decisions related to business which would not only maximize profit, but also serve and protect the rights and interest of other members of society like consumers, workers and community as a whole.
Content Outline	2.1 Challenges and Impact of CSR on Stakeholders - Shareholders, Creditors and Financial Institutions, Government, Consumers, Employees and Workers, Local Community and Society 2.2 CSR and Environment, CSR and Sustainable Development and Factors influencing CSR Policy -Triple Bottom Line - Role of HR Professionals in CSR
Module 3 (Credit 1) CSR Implementation	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none">• Demonstrate a multi-stakeholder perspective in viewing CSR issues• Analyze the connections between corporate strategy and CSR
Content Outline	3.1 CSR Implementation: <ul style="list-style-type: none">• Strategic CSR model• Implementing CSR• CSR as competitive advantage

Module 4 (Credit 1) Case Studies and Project Development	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Evaluate the level of commitment to CSR of various organizations • Develop skills to implement and monitor CSR projects
Content Outline	4.1 Case Studies and Project Development <ul style="list-style-type: none"> • Organizational issues • Economic/business issues • Social issues

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)-

Internal: 50 marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External Assessment: 50 marks

References

- Sharma J.P., Corporate Governance, business ethics and CSR, Ane Books Pvt Ltd, New Delhi
- Blowfield M., and Murray A., Corporate Responsibility, Oxford University Press.
- Kotler P. and Lee N., CSR: doing the most good for Company and your cause, Wiley.
- Beeslory, Michel and Evens, CSR , Taylor and Francis.
- Banerjee S., CSR: the good, the bad and the ugly, Edward Elgar Publishing.
- Perrini F., Stefano and Tencati A., Developing CSR- A European Perspective, Edward Elgar Publishing.
- William B. Werther, Jr. David Chandler, Strategic Corporate Social Responsibility, stakeholders' a global environment, Sage Publication.
- Crane, A. Et al., The Oxford handbook of Corporate Social Responsibility, Oxford University Press Inc., New York.
- Crane A., Matten D., Spence L., Corporate Social Responsibility: Readings and Cases in a Global Context, Routledge.
- Chakrabarty B., Corporate Social Responsibility in India, Routledge, New Delhi.

COURSE SYLLABUS

Semester II

2.3 OEC

Course Title	Digital Skills
Course Credits	4 Credits
Course Outcomes	After going through the course, learners will be able to : <ul style="list-style-type: none">• Build an understanding of the fundamental concepts of digital communication.• Equip students with essential digital literacy skills for personal and professional use.• Familiarize with digital content and how which will help them in their academics• Build an understanding of the digital problem solving.• Familiarize with digital citizenship and how which will help them in their academics.
Module 1 (Credit 1) Digital Fundamentals and Communication	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none">• Build an understanding of the fundamental concepts of digital communication.• Equip students with essential digital literacy skills for personal and professional use.• Introduce the student to advanced networking concepts, preparing the student for entry Advanced courses in digital computer.
Content Outline	1.1 Digital Fundamentals and Communication: <ul style="list-style-type: none">• Digital Literacy: Understanding digital concepts, terminology, and trends.• Online Safety and Security: Best practices for online security, privacy, and cyber hygiene.• Digital Tools: Introduction to productivity software (e.g., Google Workspace, Microsoft Office).• Email Etiquette: Effective email communication strategies
Module 2 (Credit 1) Digital Content Creation	
Learning Outcomes	After learning the module, learners will be able to <ul style="list-style-type: none">• Familiarize with digital content and how which will help them in their academics• Understand basics of the digital content creation.• Learn complexity of digital content creation• Understand the importance of digital content creation
Content Outline	2.1 Digital Content Creation: <ul style="list-style-type: none">• Digital Storytelling: Creating engaging digital content (e.g., blogs, videos)• Visual Design: Principles of visual design and graphic design software (e.g., Canva, Adobe Creative Cloud)

	<ul style="list-style-type: none"> Digital Media: Understanding digital media formats and platforms (e.g., podcasting, YouTube)
Module 3 (Credit 1) Digital Problem-Solving	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Build an understanding of the digital problem solving. Equip students with essential digital literacy skills through data analysis. Introduce the student to use of digital tools for problem solving and critical thinking.
Content Outline	3.1 Digital Problem-Solving: <ul style="list-style-type: none"> Data Analysis: Introduction to data analysis and visualization tools (e.g., Excel, Tableau) Digital Tools for Problem-Solving: Utilizing digital tools for critical thinking and problem-solving Case Studies: Applying digital skills to real-world problems
Module 4 (Credit 1) Digital Citizenship	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> Familiarize with digital citizenship and how which will help them in their academics Understand basics of the digital ethics. Learn complexity of digital cyberbullying and online harassment Understand the importance of digital footprint management
Content Outline	4.1 Digital Citizenship: <ul style="list-style-type: none"> Digital Ethics: Understanding digital ethics and responsible behavior online. Cyberbullying and Online Harassment: Strategies for addressing online harassment. Digital Footprint Management: Managing online presence and reputation.

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)-

Internal: 50 marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External Assessment: 50 marks

References:

- Moschovitis, Best Practices for Digital Skills
- Kai Riemer and Stefan Schellhammer, Collaboration in the Digital Age

COURSE SYLLABUS
Semester II
2.3 OEC

Course Title	Emotional Intelligence at Workplace
Course Credits	4 Credits
Course Outcomes	After going through the course, learners will be able to
	<ul style="list-style-type: none"> • Have deep understanding of the concept of emotional intelligence and its role in managing organizations effectively.
	<ul style="list-style-type: none"> • Develop emotional competencies to enhance managerial skills.
	<ul style="list-style-type: none"> • Assess and apply techniques of emotional intelligence at workplace.
Module 1 (Credit 1) Foundations of Emotional Intelligence	
Learning Outcomes	After learning the module, learners will be able to
	<ul style="list-style-type: none"> • Define emotional intelligence and identify the significance of emotional intelligence.
	<ul style="list-style-type: none"> • Understand the foundational concepts and models of Emotional Intelligence (EI).
	<ul style="list-style-type: none"> • Apply EI principles to enhance self-awareness and self-management in professional settings.
Content Outline	1.1 Introduction to Emotional Intelligence (E.I): <ul style="list-style-type: none"> • Definition of E.I, • significance in the workplace, • Historical background and evolution of the concept, • Distinguishing between IQ and EQ, • Benefits of high EI for individuals and organizations
	1.2: The Indian Perspective on Emotions and Work: <ul style="list-style-type: none"> • Cultural nuances of emotional expression and perception in India. • Influence of joint family systems, hierarchy, and collectivism on workplace emotions. • Challenges and opportunities for cultivating EI in Indian organizational cultures.
	1.3: Self-Assessment and Developing Self-Awareness: <ul style="list-style-type: none"> • Importance of self-awareness as the cornerstone of EI. • Techniques for enhancing emotional self-awareness: journaling, mindfulness, introspection. • Understanding personal emotional triggers and responses. • Identifying strengths and areas for development in emotional self-awareness.
Module 2 (Credit 1) Personal Competence: Self-Management	
Learning Outcomes	After learning the module, learners will be able to

	<ul style="list-style-type: none"> Gain insights on techniques to assess emotional intelligence.
	<ul style="list-style-type: none"> Utilize emotional intelligence for effective communication, conflict resolution, and leadership.
Content Outline	<p>2.1: Emotional Self-Regulation:</p> <ul style="list-style-type: none"> Understanding emotional control and impulse management. Strategies for managing difficult emotions: anger, anxiety, stress, frustration. Developing adaptability and flexibility in response to change. Building trustworthiness and conscientiousness. <p>2.2 Stress Management and Resilience:</p> <ul style="list-style-type: none"> Understanding workplace stressors in India (e.g., long hours, pressure, work-life balance challenges). Emotional coping mechanisms for stress. Building personal resilience to overcome adversity. Developing healthy habits for emotional well-being. <p>2.3: Developing Emotional Well-being for Professionals:</p> <ul style="list-style-type: none"> Connecting EI with mental health and overall well-being. Practices for fostering positive emotions and a growth mindset. Work-life integration in the Indian context. Importance of self-care and seeking support.
Module 3 (Credit 1) Social Competence: Social Awareness and Relationship Management	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ul style="list-style-type: none"> Define emotional intelligence and identify the empathy and understand others emotional intelligence. Develop social awareness and empathy to build stronger interpersonal relationships at work.
Content Outline	<p>3.1 Empathy and Understanding Others:</p> <ul style="list-style-type: none"> Defining empathy and its various dimensions (cognitive, emotional, compassionate). Developing the ability to understand others' perspectives, feelings, and needs. Active listening skills and non-verbal communication cues in Indian settings. Service orientation and understanding customer/stakeholder needs. <p>3.2 Relationship Management and Communication:</p> <ul style="list-style-type: none"> Effective verbal and non-verbal communication strategies. Building rapport and trust in professional relationships. Giving and receiving constructive feedback. Negotiation and persuasion skills.
Module 4 (Credit 1) Applying Emotional Intelligence in Leadership and Organizational Context	
Learning Outcomes	<p>After learning the module, learners will be able to</p>

	<ul style="list-style-type: none"> Analyze the role of EI in fostering a positive and productive work culture in Indian organizations. Apply emotional intelligence to foster organizations with effective leaders and teams.
Content Outline	<p>4.1 Building an Emotionally Intelligent Organization:</p> <ul style="list-style-type: none"> Creating a culture of psychological safety and open communication. Promoting emotional well-being and resilience programs. Integrating EI into HR practices (recruitment, training, performance management). The impact of EI on organizational productivity and innovation. <i>Activity:</i> Group project: Designing an EI development program for an Indian company. <p>4.2 Current Trends and Future of EI in Indian Workplaces:</p> <ul style="list-style-type: none"> The increasing relevance of EI in the digital age and remote work. Ethical considerations in applying EI. Future trends and research in emotional intelligence. Concluding remarks and personal action planning for continuous EI development.

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)-

Internal: 50 marks

Sr. No	Assignments/Activities
1	Written Test/ Assignment / Project Report/ Quiz/Debate
2	Group Discussion / Case Study
3	PPT Presentations/Seminars/Workshop/ Any other innovative methods
	Total – 50 Marks

External Assessment: 50 marks

References

- Goleman, D. (1995). *Emotional Intelligence: Why It Can Matter More Than IQ*. Bantam Books.
- Goleman, D. (2000). *Working with Emotional Intelligence*, Bantam Books, New York, NY.
- Goleman, D. (2011). *The Brain and Emotional Intelligence: New Insights*.
- Bar-On, R., & Parker, J.D.A. (Eds.) (2010). *The Handbook of Emotional Intelligence*. Jossey Bass
- Goleman, D. (2013). *Leadership: The Power of Emotional Intelligence*.
- Goleman, D. & Cherniss, C. (2011). *The Emotionally Intelligent Workplace*. John Wiley & Sons Inc.
- Goleman, D., Boyatzis, R. & McKee, A. (2002). *Primal Leadership: Realizing the Power of Emotional Intelligence*. Harvard Business School Pr.
- Bhattacharya, Mousumi & Sengupta. (2007). *Emotional Intelligence – Myth or Reality*, Excel Books, New Delhi.

Course Title	Development Activities for Young Children (Th)
Course Credits	4
Course Outcomes	<p>After going through the course, learners will be able to:</p> <ol style="list-style-type: none"> 1. Identify the important characteristics of Child Development 2. Explain the meaning, importance of various domains of development 3. Conclude the important aspects of development from infancy 4. Correlate the inter-relatedness of the all domains of development 5. Plan developmentally appropriate activities for young children 6. Design an integrated approach in developmental activities for young children
Module 1 (Credit 1) - Introduction to Development	
Learning Outcomes	<p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> 1. Develop an understanding of development 2. Relate to the development of different domains in the context of theories of Human Development 3. Comprehend the interrelationship between all the domains of development 4. Conclude the uniqueness of each child based on nature and nurture 5. Understand the concept of play and its importance for children's overall development and learning
Content Outline	<ol style="list-style-type: none"> 1. Introduction to child development. 2. Understand the basis and principles of development 3. Introduction to theories of Child Development 4. Issues in studying Child development 5. Concept of Developmental Milestones 6. Definition of play, characteristics of play and types of play, Role of play in development and learning
Module 2 (Credit 1) - Infancy	

Learning Outcomes	<p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> 1. Assess the developmental changes during Infancy 2. Relate to the significance of Infancy age in the process of development. 3. Interpret Developmental milestones, characteristics of development in all stages.
Content Outline	<ol style="list-style-type: none"> 1. Stage of Childhood- Infancy 2. Concepts and developmental tasks 3. Physical, Motor development 4. Cognitive and Language development 5. Social and Emotional Development 6. Adults Role in optimizing development
Module 3 (Credit 1) - Foundational Years (3-8 years)	
Learning Outcomes	<p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> 1. Understand the meaning and importance of the various domains of development 2. Summarize the sequence of development of every domain of development across foundational years 3. Interpret development in various domains during Preschool Stage and Grade I & II 4. Prescribe the role of Adults in Development
Content Outline	<ol style="list-style-type: none"> 1. Physical Domain 2. Motor and Sensory Perceptual Domain 3. Cognitive and Language Development 4. Social and Emotional Domain 5. Creativity and Aesthetic Development 6. Adults Role in optimizing Development
Module 4 (Credit 1) - Planning Developmentally Appropriate Activities	

Learning Outcomes	<p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> 1. Identify the different age-appropriate activities to enhance development across domains. 2. Design developmentally appropriate materials and teaching aids for young children
Content Outline	<ol style="list-style-type: none"> 1. Identify the different age-appropriate curricular activities. 2. Use their creativity to prepare developmentally appropriate materials and teaching aids for young children 3. Develop skills in planning and conducting activities for young children 4. Create instructional materials for children to enhance learning in the various domains of development

Assignments/Activities towards Comprehensive Continuous Evaluation

(CCE):

Module 1:

1. Discussion on issues in studying Child development
2. Presentation on Developmental Milestones
3. Designing a scrap book on play

Module 2:

1. Discussion on developmental tasks
2. Collecting paper cuttings on various topics related to Physical/Motor/Cognitive/Language/ Social and Emotional development

Module 3:

1. Assignment on interpretation of development in various domains during Preschool Stage and Grade I & II.
2. Presentations on Developmental Milestones across domains
3. Discussion on adult's role in child development

Module 4:

1. Creating/Designing Activities and preparing materials for Activities
2. Folder with Readiness Activities for foundational Literacy and Numeracy
3. Visits to Early Childhood Programs and Report Writing

References:

4. Branscombe, N., Burchan, J., Castle K., Surbeck, E., Dorsey, A. & Taylor, J. (2014). Early Childhood Education - A Constructivist Perspective, 2nd Edition, Routledge, NY.
5. Eliason, C & Jenkins, L (2012). A Practical Guide to Early Childhood Curriculum, 9th Edition, Pearson, Boston.
6. Essa, E (2007). Introduction to Early Childhood Education, 5th Edition, Thomson, Delmar Learning, United States.
7. Hearon, P. & Hildebrand, V. (2013). "Guiding Young Children" Pearson. USA.
8. Henson, K. T. (2015). Curriculum Planning: Integrating Multiculturalism, Constructivism, and Education Reform. Taxman Publications Private Limited.
9. Jackman, H. L. (2009). Early Education Curriculum: A Child's - Connection to the World, 5th ed. Wadsworth Cengage Learning.
10. Krogh, S. L. & Slentz, K. L. (2008). The Early Childhood Curriculum. Lawrence Erlbaum Associates, Publishers Mahwah, New Jersey London.
11. McLachlan, C., Fler, M., & Edwards, S. (2018). Early Childhood Curriculum: Planning, Assessment and Implementation. Cambridge University Press.
12. Ministry of Women and Child Development, GOI. (U.D.). National Early Childhood Care and Education (ECCE) Curriculum Framework.
13. Morrison, G. (2013). "Fundamentals of Early Childhood Education" Pearson.
14. National Education Policy (2020). 12. National Council of Educational Research and Training. (2019). The Preschool Curriculum. Dept. of Elementary Education, National Council of Educational Research and Training.
15. Soni, R. (2015). Theme Based Early Childhood Education and Care Program: A Resource Book. NCERT, Delhi.

Course Title	Biofuels
Course Credits	4
Course Outcomes	After Completion of this course the learner will be able to
	1. Demonstrate an understanding of the definition, scope, and importance of Biofuels, analyzing their relevance to climate change and environmental issues, and evaluating public awareness.
	2. Calculate the potential impact of various biofuel feedstocks on production, applying knowledge of agricultural, farm, forestry, and organic wastes
	3. Identify different plant species yielding biodiesel and practice seed harvesting, processing, and oil extraction techniques for biofuel production.
	4. Design innovative production technology processes for biofuels (biodiesel, ethanol, and biogas) and evaluate their effectiveness in meeting energy demands
Module 1 (Credit 1) - Biofuels	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze the introduction, definition, scope, and importance of biofuels concerning climate change and environmental issues.
	2. Investigate the historical development of biofuels, including the advantages, disadvantages, and the progression through first to fourth generations
Content Outline	<ul style="list-style-type: none"> • Introduction, Definition, scope and Importance of Bio-fuel with respect to climate change and environmental issues. <ul style="list-style-type: none"> • Public awareness. • Biofuels scenario in India and world. • History of Biofuels. • Advantages and disadvantages of biofuels. • Developmental generation of biofuels: first, second, third and <ul style="list-style-type: none"> • fourth generation of biofuels and present status.
Module 2 (Credit 1) - Biofuel Feed Stock	
Learning Outcomes	After learning the module, learners will be able to
	1. Classify various biofuel feedstocks, including agricultural, farm, forestry, and organic wastes from residential, institutional, and industrial sources

	2. Investigate the significance of algal biofuels in the context of sustainable energy production
Content Outline	<ul style="list-style-type: none"> • Biofuel feed stocks: • Agricultural waste, farm waste, forestry waste, organic wastes from the residential, institutional and industrial waste and its importance. • (Biomass- plant, animal and microbial based waste). • Algal biofuel.
Module 3 (Credit 1) - Biodiesel species Biofuel Feed Stock	
Learning Outcomes	After learning the module, learners will be able to
	1. Classify biodiesel species such as Pongamia pinnata, Simarouba gluca, Jatropha curcas, Azadirachta indica, Madhuca indica, and Calophyllum inophyllum.
	2. Practice seed harvesting, processing, oil extraction, and characterization techniques specific to each biodiesel species
Course Content	<ul style="list-style-type: none"> • Biodiesel species: • Pongamia pinnata, Simarouba gluca, Jatropha curcas, Azadirachta indica, Madhuca indica and Calophyllum inophyllum Seed harvesting, processing, oil extraction, and characterization
Module 4 (Credit 1) - Bioethanol	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze the introduction and production technology of biodiesel, bioethanol, biogas, and biohydrogen, including quality analysis techniques.
	2. Evaluate biofuel sustainability and policies in India, and interpret biofuel production statistics to assess their impact on the energy sector
Course Outcomes	<ul style="list-style-type: none"> • Introduction to biodiesel, bioethanol, biogas and bio hydrogen. Production technology of biofuels (Biodiesel, ethanol and biogas). Quality analysis of biodiesel, bioethanol and biogas • Biofuel sustainability; Biofuel Policy in India. Biofuel production statistics.

Assignments/Activities towards Comprehensive Continuous

Evaluation (CCE):

Module 1 - Biofuels

Project: Public Awareness Campaign on Biofuels

Description: Students will design a public awareness campaign on biofuels to educate their local community about the importance and benefits of biofuels in mitigating climate change and addressing environmental issues. They will create informative posters, pamphlets, and digital content highlighting the definition, scope, advantages, and disadvantages of biofuels. Through outreach events and social media platforms, students will disseminate information on the history and developmental generations of biofuels, emphasizing their relevance in the context of sustainable energy solutions. This project will not only enhance students' understanding of biofuels but also empower them to communicate scientific concepts effectively to the public.

Module 2 - Biofuel Feedstock

Project: Feasibility Study of Algal Biofuels

Description: Students will conduct a feasibility study on the production of algal biofuels as a sustainable energy source. They will research different species of algae suitable for biofuel production and assess their growth characteristics, lipid content, and potential yield. Using basic laboratory equipment and techniques, students will culture algae samples under controlled conditions and monitor their growth over time. Through experimentation, students will determine the feasibility of algal biofuel production and explore its potential as a renewable energy solution. This project encourages hands-on experimentation and critical thinking skills in evaluating alternative biofuel feedstocks.

Module 3 - Biodiesel Species as Biofuel Feedstock

Project: Seed-to-Fuel Biodiesel Production

Description: Students will engage in a hands-on project to produce biodiesel from selected biodiesel species, such as *Pongamia pinnata* or *Jatropha curcas*. They will start by collecting seeds of the chosen species and then proceed to harvest, process, and extract oil from the seeds using simple techniques that can be conducted in a school laboratory or at home. After obtaining the biodiesel, students will characterize its properties and assess its quality using standard analytical methods. Through this practical project, students will gain valuable experience in biodiesel production and deepen their understanding of the entire seed-to-fuel process.

Module 4 - Bioethanol

Project: Bioethanol Production and Quality Analysis

Description: Students will design and conduct experiments to produce bioethanol from renewable feedstocks such as sugarcane or maize. They will ferment the feedstock to produce ethanol and then distill and purify the ethanol using basic laboratory equipment. Students will analyze the quality of the bioethanol using standard analytical techniques to assess its purity, alcohol content, and suitability for use as a fuel. Additionally, students will research and evaluate biofuel sustainability policies in India to understand the regulatory framework governing bioethanol production. This project provides hands-on experience in bioethanol production and quality analysis while fostering an understanding of biofuel sustainability and policy considerations.

References:

1. The Biodiesel Handbook (2005). Jurgen Krahl, Jon Harlan Van Gerpen. AOCS Press.
2. Bioenergy and Biofuels (2017). Ozcan Konur. CRC Press, Taylor & Francis's group.
3. <https://mnre.gov.in/biofuels>

Course Title	Science Café
Course Credits	4
Course Outcomes	<p>After going through the course, learners will be able to,</p> <ol style="list-style-type: none"> 1. Apply principles of nutrition to promote good health. 2. Analyze the composition and properties of nutrients. 3. Evaluate the significance of macro and micro elements. 4. Design balanced dietary plans for optimal health.
Module 1 (Credit 1) - Fundamentals of Nutrition	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Utilize insights into food functions, nutrition, and nutrients to discern different levels of nutrition and recognize signs of malnutrition. 2. Explore the correlation between nutrition and health, identifying visible signs of well-being and understanding the significance of adhering to food guides for optimal nutrient utilization
Content Outline	<ul style="list-style-type: none"> • Functions of foods, definition of nutrition, nutrients, adequate optimum and good nutrition, malnutrition. Food as a source of nutrients. • Interrelationship between nutrition and health, visible symptoms of good health. • Food guide-basic five food groups and usage of food guide. Use of food in body-digestion, absorption, transport, and utilization of nutrients in the body.
Module 2 (Credit 1) Water and Energy in Nutrition	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Examine the role of moisture in food, including concepts like hydrogen bonding, bound water, free water, water activity, and their influence on food stability. 2. Assess the concept of energy, encompassing its unit, food as an energy source, the energy value of food, the body's energy requirements, and the utilization of food for energy needs.

Content Outline	<ul style="list-style-type: none"> • Water as a nutrient, function, sources, requirement, structure, water balance – effect of deficiency. Introduction to chemistry of water and ice. • Moisture in food: Hydrogen bonding, Bound water, Free water, Water activity and Food stability. • Energy – UNIT of energy, food as a source of energy, energy value of food, the body's need for energy, B.M.R. activities. Utilization of food for energy requirements. Acid – base balance.
Module 3 (Credit 1) - Carbohydrates and Lipids in Food Science	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Apply knowledge of carbohydrates for dietary analysis. 2. Investigate the role of sweetening agents in food. 3. Assess the properties of lipids for physiological understanding. 4. Develop processes for handling fats and oils in food processing.
Content Outline	<ul style="list-style-type: none"> • Carbohydrates- composition, classification, sources, functions, structure, physical & chemical properties. • Other sweetening agents, functions of sugar in food (Browning reaction), changes during cooking and processing. • Lipids – composition, nomenclature, saturated, unsaturated fatty acids, classification, food sources, functions of fats. Physical and chemical properties, emulsions, chemistry & technology of fat and oil processing. Role of food lipids in flavour
Module 4 (Credit 1) - Minerals and Pigments in Nutrition	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Utilize knowledge of mineral functions, sources, bio availability, and deficiencies to evaluate the importance of calcium, iron, iodine, fluorine, sodium, and potassium in human health. 2. Examine the pigments indigenous to food, including their structure, chemical and physical properties, and analyze the effects of processing and storage on these pigments. 3. Explore the diversity of flavors present in vegetables, fruits, spices, fermented foods, meats, and seafood, discerning their sensory attributes and culinary applications.

Content Outline	<ul style="list-style-type: none"> • Mineral functions, sources, Bio-availability, and deficiency of following minerals – calcium, Iron, Iodine, Fluorine, sodium, potassium. • Pigments indigenous to food, structure, chemical and physical properties. Effect of processing and storage. • Flavors – Vegetables, fruit and spice flavour, fermented food, Meat and seafood.
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Assignments/Activities towards Comprehensive Continuous

Evaluation (CCE): Module 1 - Fundamentals of Nutrition

Project: Nutritional Analysis of Daily Diet

Description: Students will conduct a nutritional analysis of their daily diet using readily available online tools or smartphone applications. They will record their food intake for a week and input the data into the software to calculate the intake of macronutrients (carbohydrates, proteins, and fats), micronutrients (vitamins and minerals), and total energy intake. Through analysis, students will identify any deficiencies or excesses in their diet and make recommendations for dietary improvements. This project not only reinforces classroom learning but also equips students with practical skills to make informed dietary choices in their personal and professional lives.

Module 2 - Water and Energy in Nutrition

Project: Water Activity in Common Foods

Description: Students will investigate the concept of water activity in various common food items using easily accessible materials and equipment. They will collect samples of fresh fruits, bread, dried snacks, and other foods from their local grocery store or kitchen. Using a simple homemade water activity meter or by measuring relative humidity, students will determine the water activity of each food sample. Through this hands-on experiment, students will gain insights into the relationship between water activity and food stability, which is crucial for food preservation and safety. This project allows students to apply theoretical knowledge to practical scenarios and enhances their understanding of food science concepts.

Module 3 - Carbohydrates and Lipids in Food Science

Project: Investigating Carbohydrate Content in Everyday Foods

Description: Students will analyze the carbohydrate content of everyday food items using basic qualitative tests that can be performed at home or in a school laboratory. They will select a variety of food samples such as fruits, vegetables, grains, and processed foods from their kitchen or local grocery store. Using simple tests like Benedict's test for reducing

sugars and iodine test for starch, students will qualitatively assess the presence of carbohydrates in each food sample. Through this hands-on activity, students will deepen their understanding of carbohydrate composition in foods and its significance in human nutrition. This project fosters practical skills and encourages students to make informed dietary choices based on carbohydrate content.

Module 4 - Minerals and Pigments in Nutrition

Project: Exploring Minerals and Pigments in Everyday Foods

Description: Students will investigate the presence of minerals and pigments in everyday foods through a simple kitchen-based experiment. They will select a variety of fruits, vegetables, grains, and dairy products from their kitchen or local market. Using basic household items like vinegar, iodine solution, and pH paper, students will test for the presence of minerals such as calcium, iron, and potassium, as well as natural pigments like anthocyanins and carotenoids. Through this hands-on exploration, students will gain practical experience in identifying essential nutrients and bioactive compounds in foods. This project not only reinforces classroom learning but also empowers students to make healthier food choices for themselves and others.

References Books:

1. Damodaran, S., Parkin, K. L., & Fennema, D. R. (2007). Fennema's Food Chemistry (4th ed.). **CRC Press.**
2. Guthrie, H. A. (1983). Introductory Nutrition (5th ed.). Mosby.
3. Meyer, L. H. (2004). Food Chemistry. Textbook Publishers. ISBN: 0758149204.
4. Mudambi, S. R., Rao, S. M., & Rajagopal, M. V. (2006). Food Science (2nd ed.). New Age International.
5. Mudambi, S. R., & Rajgopal, M. V. (2001). Fundamentals of Foods and Nutrition (4th ed.). New Age International Publishers.
6. Shakuntla, M. N., & Shadaksharaswamy, M. (2013). Food Facts and Principles. New Age International.

Course Title	Microbiology-II (THEORY & PRACTICAL)
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	1. Classify different types of bacteria based on Gram staining
	2. Perform various methods of preparing cultures
	3. Evaluate different Culture media
Module 1(Credit1) - Classification of Bacteria, growth & multiplication	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Explore different types of Gram negative and Gram-positive bacteria 2. Evaluate Bacterial growth curve, generation time, population doubling time
Content Outline	<ul style="list-style-type: none"> • Classification of Gram negative and Gram-positive bacteria • Factors affecting the growth and multiplication of bacteria • Significance of growth curve in routine culture • Perform tests on biochemical media
Module 2(Credit1) - Cultivation of microorganisms	
Learning Outcomes	After learning the module, learners will be able to,
	1. Analyze Normal flora with examples
	2. Identify and study general purpose, enrichment, enriched, Selective, transport culture media
Content Outline	<ul style="list-style-type: none"> • Different types of culture media classification based on ingredients • Classification of culture media based on consistence • Preparation of biochemical media
Module 3 (Credit1) - Microbial Metabolism	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze metabolic pathways of microorganisms such as Glycolysis, Fermentation, aerobic/anaerobic respiration
	2. Evaluate Autotrophs and Heterotrophs

Module 4 (Credit1) - Pathogenesis of bacterial infection and study of Gram-negative bacteria	
Learning Outcomes	After learning the module, learners will be able to
	1. Explain the Epidemiology and Pathophysiology of diseases
	2. Illustrate morphological, cultural and Biochemical study of Gram-negative bacilli
Content Outline	3. Identify the characteristics of Enterobacteriaceae family
	<ul style="list-style-type: none"> • Sources of infection, incubation period
	<ul style="list-style-type: none"> • Clinical symptom • Diagnosis technique in the routine lab • Colony characteristics, Biochemical reactions • Pathogenesis, clinical symptoms • Laboratory diagnosis and treatment

Assignments / Activities towards Comprehensive Continuous Evaluation (CCE):

1. Provide examples of Gram-negative and Gram-positive bacterial species, including their morphological features, habitats, and pathogenicity.
2. Prepare a chart on how growth curves are generated using microbial cultures incubated under controlled laboratory conditions.
3. Select and perform biochemical tests commonly used for bacterial identification and characterization, such as catalase test, oxidase test, indole test, and citrate utilization test.
4. Chart preparation on Classification of culture media based on their ingredients, including complex media, defined media, selective media, and differential media.
5. Discuss the advantages, limitations, and clinical utility of different diagnostic methods in routine laboratory practice, considering factors such as sensitivity, specificity, turnaround time, and cost-effectiveness.

6. Prepare a chart for schematic representation for pathogenesis of infectious diseases, including the mechanisms by which pathogens invade host tissues, evade immune defences, and cause tissue damage or systemic effects.

Reference books:

1. Ananthnarayana Text Book of Microbiology 12th edition. Publisher: Universities press
2. Jawetz, Melnick and Adelberg's Medical Microbiology 27th edition. Publisher: MF AI Kobaisi
3. Text book of Medical Laboratory Technology by Dr.P.B.Godkar 3rd edition. Published 2018
4. D.K.Sharma's –Microbiology Published by MKM Publishers Pvt. Ltd.
5. Clinical Microbiology by Keith Struthers

Course Title	Basic Fashion Illustration
Course Credits	4
Course Outcomes	After going through the course, learners will be able to,
	1. Develop sketching skills with a focus on proportion, movement, and style.
	2. Enable to develop skills in designing fashion accessories
	3. Develop skills to visually communicate design ideas through illustrations, including garment details, textures, and color palettes.
	4. Enhance ability to draw fashion figures and clothing
Module 1 (Credit 1)-	
Learning Outcomes	After learning the module, learners will be able to,
	1. Acquire the skill to sketch fashion figures and garments, with a focus on proportion, movement, and style. 2. Apply knowledge of anatomy and colour schemes in artistic way.
Content Outline	1. Basics of design <ul style="list-style-type: none"> ● Elements and Principles of design 2. Human Anatomy <ul style="list-style-type: none"> ● Introduction to human anatomy and proportions ● Study of human body parts -Man, woman & child.. 3. Basic color schemes- achromatic, analogues, monochromatic, complimentary, and neutral.
Module 2 (Credit 1) -	
Learning Outcomes	After learning the module, learners will be able to,
	1. Develop basic croqui drawing techniques illustrating various movements and mechanical poses. 2. Acquire skills in croqui drawings and depicting movement.

Content Outline	<ul style="list-style-type: none"> ● Croqui and movement. ● Croqui and movement -Basic croqui drawing ● showing different movements and mechanical poses, Fleshing of block figures (leg and hand movement, front and 3/4view)8 head, 10 head and 12 head croqui for women, men and children
Module 3 (Credit 1) -	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Visually communicate design ideas through fashion illustrations. 2. Develop new illustrations for accessories and Necklines, collars, Sleeves.
Content Outline	<ol style="list-style-type: none"> 1. Accessory designing <ul style="list-style-type: none"> ● Accessory details to show Indian and western look that go well with the garment (1 or 2 examples to give basic concepts) such as jewelry, bags, shoes, hats, watches, purses , umbrella, hairstyle, etc. 2. Basic necklines, collar, sleeve and variation. <ul style="list-style-type: none"> ● Drawing of different neckline patterns (any 10) ● Drawing of different color patterns in (any 10) ● Drawing of different sleeve pattern any (any 10)
Module 4 (Credit 1) -	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Examine the law of fabric suspension. 2. Apply knowledge by adopting at least five different fabrics on a garment.
Content Outline	<ol style="list-style-type: none"> 1. Law of fabric suspension <ul style="list-style-type: none"> ● Rendering different fabrics and fall such as cotton, chiffon, silk, pleats, frills, ruffles, gathers, denim, leather for Terry Pile effect, etc. adoption of any five fabrics on garment . ● Procure fabric sample made out of specific materials and render it while observing on 12 head croqui (any 2 samples)

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

- Continuous internal evaluation of 50 marks
- Two Modules = 25 marks each

References:

1. Khurana P. Sethi M., (2007) *Introduction to Fashion Technology* Laxmi Publications.
2. Chapman N., Cheek J. (2012), *Creative Fashion Drawing: A Complete Guide to Design and Illustration Styles* (Essential Guide to Drawing), Arcturus Publishing Ltd
3. Lafuent M. (2008), *Fashion Illustration Techniques (Drawing)*, Taschen GmbH Publishing
4. Singhal R., Bharali K. (2010) *Fashion Rendering*, Om books publications
5. Karampuri D., Bhosale J. (2012). *Liberty Fashion Sketch Book*, Liberty Publication
6. Takamura Z., (2012), *Fashion Illustration Techniques*, Rockport Publishers
7. Mc Kelvey, Janine K. W., (2007), *Illustrating fashion*, Blackwell Publishers Ltd
8. Takamura Z., (2012), *Fashion Illustration Techniques: A Super Reference Book for Beginners* Paperback – Import,
9. Manuela Brambatti M., (2017) *Fashion Illustration and Design: Methods & Techniques for Achieving Professional Results*, Promo press.

Course Title	Human Physiology (Theory & Practical)
Course Credits	4 (2+2)
Course Outcomes	After going through the course, learners will be able to
	1. Understand the basic structure and functions of the human body
	2. Acquainted with common diseases/disorders of each system
Module 1 (Credit 1) - Human Physiology I	
Learning Outcomes	After learning the module, learners will be able to
	1. Introduce students to basic terminologies
	2. Understand the basic structure of human body
	3. Understand the functioning of cardio vascular, respiratory, gastro intestinal
	4. Brief knowledge about common diseases affecting each system.
	5. To create awareness about interdependence and co-ordination between different systems of the body for normal functioning.
Content Outline	<p><u>INTRODUCTION</u></p> <ul style="list-style-type: none"> • General terms- anatomy, physiology, symmetrical arrangement, anatomical position. Median plane / lateral plane, internal/ external, superficial /deep, superior/ inferior, anterior/posterior. • Basic human tissues. • Introduction to human skeleton. • Structure of bone and cartilage. • Classification of various types of muscle. <p><u>BLOOD AND LYMPHATIC SYSTEM</u></p> <ul style="list-style-type: none"> • Physical characteristics of blood • Blood volume, composition of plasma and functions of plasma protein • RBC formation and functions • Information about anaemia and thalassemia. • Blood groups, their importance , Rh-incompatibility. • WBC- types, functions, importance of CBC • Platelets and mechanism of coagulation • Lymph and lymphatic system, spleen and its functions. <p><u>HEART</u></p> <ul style="list-style-type: none"> • Its structure and circulation of blood. • Cardiac cycle • Information about hypertension & ischemic heart disease

	<p><u>RESPIRATORY SYSTEM</u> Respiratory organs-nose, sinuses, larynx, trachea, bronchi lung brief structure and functions. Mechanism of respiration, factors affecting efficacy of respiration. Various lung volumes and capacities. Common diseases- TB, asthma, bronchitis, cough, pneumonia sinusitis.</p> <p><u>GASTRO - INTESTINAL SYSTEM</u> Oral cavity, tonsils, pharynx, oesophagus, stomach small and large intestine - brief structure and functions. Liver, gall bladder, pancreas structure and functions. Common disorders- Dental caries, vomiting. diarrhoea Hyperacidity, diabetes.</p>
Module 2 (Credit 1) - Human Physiology II	
Learning Outcomes	After learning the module, learners will be able to
	1. Understand the functioning of excretory system and brief knowledge about common diseases affecting this system.
	2. Know more about the nervous system
	3. Know more about the endocrine system
	4. Have knowledge of reproductive system and importance of reproductive health
Content Outline	<p><u>EXCRETORY SYSTEM</u></p> <ul style="list-style-type: none"> • Structure and function of organs of urinary system (in brief). • Mechanism of urine formation • Common diseases- urinary tract infection and renal stones. • Structure and function of skin • Regulation of body temperature • Common disorders - acne dandruff and burns. <p><u>NERVOUS SYSTEM</u></p> <ul style="list-style-type: none"> • Classification of nervous system • Structure and functions of different parts of brain, spinal cord and reflex action. • Eye - structure and mechanism of vision • Common problems - conjunctivitis, cataract. • Ear - structure and mechanism of hearing <p>Common problems - deafness, vertigo, motion sickness</p> <p><u>ENDOCRINE SYSTEM</u></p> <ul style="list-style-type: none"> • Listing of endocrine glands and their location • Functions of pituitary, thyroid, parathyroid and adrenal.

	<p>REPRODUCTIVE SYSTEM <u>FEMALE REPRODUCTIVE SYSTEM</u></p> <ul style="list-style-type: none"> • Structure • Menstrual cycle • Fertilization • Breast- Structure, function, importance of breast hygiene and breast feeding • Physiological changes in pregnancy • Importance of ante-natal care. <p><u>MALE REPRODUCTIVE SYSTEM</u></p> <ul style="list-style-type: none"> • Structure • Sex education • Contraception and infertility <p>Sexually transmitted diseases-syphilis, gonorrhoea, AIDS</p>
Module 3 (Credit 1) - Human Physiology I Practical	
Learning Outcomes	After learning the module, learners will be able to
	1. Introduce the students to human skeleton and enable them to identify various bones in the body
	2. perform simple clinical tests like estimation of haemoglobin and blood group and blood pressure
Content Outline	<ul style="list-style-type: none"> • Study of human skeleton and identification of bones. • Estimation of hemoglobin • Estimation of blood groups, • Demonstration of peripheral blood smears. Importance of complete blood count. • Measurement of pulse rate and blood pressure. • Discussion of normal components of urine. Test for abnormal components like sugar, albumin and acetone and discussion on diseases in which they are found.
Module 4 (Credit 1) - Human Physiology II Practical	
Learning Outcomes	After learning the module, learners will be able to
	1. Utilize the knowledge learnt to administer first aid for common emergency situations.
	2. Acquaint the students with the basic principles of home nursing.
Content Outline	<ul style="list-style-type: none"> • FIRST AID • -Definition, aims, qualities of first aider, contents of first aid box. • -Different types of bandages and bandaging techniques. • WOUNDS • -Classification, dressing and management of hemorrhage- basic principles and discussion about bleeding from various parts of body.

	<ul style="list-style-type: none"> • FRACTURE • -Types, symptoms, management. • Sprain and dislocation • First Aid for- foreign bodies in eye, ear, nose, skin. • First Aid for - fainting, burns, heat stroke, asthma, convulsions, electric shock and heart attack. • First Aid for - common poisoning, dog bite, snake bite, bee-sting and scorpion bite. • BASIC PRINCIPLES OF HOME NURSING- • Measuring body temperature, steam inhalation, body sponging, taking care of bed ridden patient and enema. • Cardio pulmonary resuscitation
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module 1:

Multiple choice questions, Short notes, Display, Quiz

Module 2:

Multiple choice questions, Short notes, Display, Quiz, PPT Presentation

Module 3:

Practical exam

Module 4:

Practical exam

References:

1. Guyton, A.C., Hall J.E.- Textbook of Medical Physiology - Prism Books Pvt Ltd., Bangalore.
2. Concise Medical Physiology - Chaudhari.
3. API Text Book of Medicine.
4. Textbook of Gynaecology - Datta.
5. Winwood - Sear's Anatomy and Physiology for Nurses - London, Edward Arnold.
6. Wilson -Anatomy and Physiology in Health and Illness, Edinburgh, Churchill Livingstone.
7. Chatterjee Chandi Charan -Textbook of Medical Physiology - London. W.B. Saunder's **company.**

8. Glynn M. (2013) Hutchinson's Book of Clinical Medicine (23rd ed). Saunders Ltd.
9. First Aid St .John's Ambulance Association (2002) (8th Revised edition). Dorling Kindersley Publishers Ltd

Course Title	Cuisines Of India II
Course Credits	4
Course Outcomes	After going through the course, learners will be able to -
	<ol style="list-style-type: none"> 1. Explore the diversity of cuisines of Southern and Eastern parts of India. 2. Explore the different cooking methods employed in cuisines across southern and eastern parts India 3. Examine preparations made in southern and eastern regions of India in different seasons and festivals. 4. Compare differences in use of various spices and ingredients in southern and eastern cuisines of India 5. Prepare various recipes of each type of cuisine and appreciate it's diversity.
Module 1 (Credit 1) -	South Indian Cuisine
Learning Outcomes	<ol style="list-style-type: none"> 1. Examine use of various spices and ingredients in making cuisines of Southern India. 2. Explore preparations made in different regions, different seasons and festivals in Southern India.
Content Outline	<ol style="list-style-type: none"> 1. Kerala Cuisine 2. Tamil Nadu Cuisine 3. Andhra Pradesh Cuisine 4. Karnataka Cuisine
Module 2 (Credit 1)	East Indian Cuisine
Learning Outcomes	<ol style="list-style-type: none"> 1. Examine use of various spices and ingredients in making cuisines of Eastern India. 2. Explore preparations made in different regions, different seasons and festivals in Eastern India.
Content Outline	<ol style="list-style-type: none"> 1. Bengal 2. Assam 3. Orissa

Module 3 (Credit 1)	Practical - South Indian Cuisine
Learning Outcomes	<ol style="list-style-type: none"> 1. Apply basic culinary skills in making specific dishes. 2. Describe and demonstrate cuisines of Southern India.
Content Outline	<ol style="list-style-type: none"> 1. Recipes from Kerala, Tamil Nadu, Andhra and Karnataka. 2. List popular recipes of different meals and preserves etc. 3. Cook 2 less-common recipes each and enable development of culinary skills.
Module 4 (Credit 1)	Practical - East Indian Cuisine
Learning Outcomes	<ol style="list-style-type: none"> 1. Demonstrate various traditional cooking methods and recipes. 2. Develop a better understanding of the various Indian cooking methods.
	<ul style="list-style-type: none"> ● West Bengal, Assam, Orissa dishes. ● List popular dishes of different meals and preserves etc. ● Cook less common 2 recipes each and enable to develop culinary skills.

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Individual or group projects on food ingredients used in the cuisines of the southern and eastern parts of India.
- 2. Laboratory preparation of recipes of cuisines from these regions**

References:

1. Banerji C (2008), 'Eating India: Exploring the Food and Culture of the Land of Spices'
Bloomsbury Publications
2. Chitra P, 'Foods of Earth Tastes of Heaven'
3. Cookery Books of Nita Mehta.
4. Cookery Books of Tarla Dalal.
5. Dalal T, 'The complete Gujarati Cook Book'
6. Dubey K, (2022), 'The Indian Cuisine' Published by PHI Learning Pvt.
7. Food Magazines

8. Nambiar, V (2021) 'Indian Food Anthropology and the Eat Right Movement' - Volume 2.
9. Patil V (1992), 'Food Heritage of India: A collection of Unusual Recipes from every corner of India, pp:123-147, Vakil & sons ltd Bombay Print.
10. Philip T (1978), 'Indian Cuisine', published by Ministry of Information and Broadcasting Government of India: 14-15.
11. Shenoy, Jaya, 'Dakshin Bharat'.

Course Title	Basic Food Analysis (Pr)
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ol style="list-style-type: none"> 1. Impart basic skills to do laboratory work and demonstrate basic laboratory skills for conducting food analysis. 2. Explain the general principles of instrumental techniques used in food analysis. 3. Perform analytical techniques to estimate food components such as protein and fat. 4. Identify and detect common adulterants in food samples. 5. Describe the qualitative standards and specifications prescribed by FSSAI.
Module 1 (Credit 1) - Introduction to Food Analysis and Instrumentation	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Explain the significance and role of food analysis in ensuring food quality and safety. 2. Define sampling and describe its importance in food analysis. 3. Differentiate between various sampling techniques and their applicability. 4. Evaluate the advantages and limitations of different sampling methods. 5. Describe the working principles and uses of basic instruments used in food analysis (e.g., pH meter, Colorimeter, Spectrophotometer). 6. Operate standard laboratory instruments like the Soxhlet apparatus and Kjeldahl's unit for food composition analysis.
Content Outline	<ul style="list-style-type: none"> • Introduction to food analysis and its importance. • Sampling <ol style="list-style-type: none"> 1. Definition of sampling 2. Sampling methods/ techniques. 3. Sampling Techniques in food analysis 4. General classification of sampling methods. 5. Advantages and disadvantages of Sampling • General instrumental methods – Working principle and uses of various laboratory instruments used in food analysis- pH meter, Colorimeter, Spectrophotometer, Centrifuge, Kjeldahl's apparatus for protein estimation, Soxhlet apparatus for fat estimation, Muffle furnace, Water bath.

Module 2 (Credit 1) -Estimation of Food Components	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Explore analytical methods used in estimation of proximate principles. 2. Describe significance of chemical constants of fats and oils.
Content Outline	<p>Quantitative Analysis of proximate principles:</p> <ul style="list-style-type: none"> • Estimation of moisture by AOAC method of dehydration. • Estimation of crude fat/oil by solvent extraction method. • Estimation of total ash by A.O.A.C. method. • Estimation of protein by Macro Kjeldahl method. <p>Chemical constants of fats and oils.</p> <ul style="list-style-type: none"> • Determination of Acid value by NIN method. • Determination of Saponification value by NIN method. • Determination of Iodine value by NIN method.
Module 3 (Credit 1) - Detection of Food Adulterants	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Perform analytical methods used in estimation of various food components.
Content Outline	<p>Estimation of Food Components</p> <ul style="list-style-type: none"> • Estimation of total and free sugar from honey by Benedict's/ Lane and Eynon's quantitative reagent method. • Determination of Ascorbic acid (Vit. C) from food sources by 2, 6, dichlorophenol indophenol method. • Estimation of sodium chloride (NaCl) salt from butter and cheese. • Estimation of Acidity in milk and ice cream by titrimetric method.
Module 4 (Credit 1) - Food Quality Standards and Regulations	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Describe food adulterants and know methods of analysis. 2. Detect adulterants present in various foods
Content Outline	<p>Qualitative analysis of common food adulterants</p> <ul style="list-style-type: none"> • Fats and oils • Spices and condiments • Milk and milk products • Cereals and pulses • Sugar, honey and jaggery • Tea and coffee • Sweets and confectionary

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Perform the practical on Food Analysis in laboratory.

References:

1. Deshpande, H.W. and Poshadri, A.(2023). *Food Analysis and Quality Control*. Nipa Genx Electronic Resources & Solutions Pvt Ltd
2. Pomeranz, Y. and Meloan, C.E. (2004). *Food analysis Theory and Practice* (3rd ed.). CBS Publishers.
3. Sathe, A. Y. (1999). *A First Course in Food Analysis*. New age International Pvt. Ltd.
4. Sehgal, Shalini. (2020). *A Laboratory Manual of Food Analysis*. Dreamtech Press.
5. Siva Subramanian, N., Ushasree, P. and Reddy, G. Naveen Kumar. (2022). *Textbook of Food Analysis*. Unique Pub International.

Course Title	Culinary Science (Pr)
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	<ol style="list-style-type: none"> 1. Examine the nature and composition of food. 2. Explore role of different ingredients in food preparations. 3. Create acceptable food products with maximum retention of nutrients. 4. Develop culinary skills using various methods of cooking. 5. Evaluate and apply food safety, hygiene, and standardization practices in culinary operations.
Module 1 (Credit 1) - Introduction to Culinary Science	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Apply basic culinary skills required in the kitchen. 2. Prepare soups, salads, beverages and starters
Content Outline	<ul style="list-style-type: none"> ● Terms ● Weights and Measures ● Cooking Methods ● Kitchen equipment, tools ● Preliminary preparations ● Safety and Hygiene practices in the kitchen ● Role of Ingredients and Cooking Methods ● Soups ● Beverages ● Salads ● Starters
Module 2 (Credit 1) - Indian Cuisine	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Prepare popular Indian regional dishes. 2. Demonstrate various traditional cooking methods and recipes. 3. Develop a better understanding of the various Indian cooking methods.
Content Outline	<ul style="list-style-type: none"> ● Role of Ingredients and Cooking Methods ● Snacks ● Rice Preparations ● Pulses and Legumes ● Indian Breads ● Indian Traditional Sweets

Module 3 (Credit 1) - Bakery and Desserts	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Describe methods and techniques used in the preparation of bakery, pastry and confectionary 2. Describe and demonstrate the basic baking science, principles, ratios and techniques.
Content Outline	<ul style="list-style-type: none"> ● Role of Ingredients and Cooking Methods ● Cakes ● Biscuits and Cookies ● Tarts and Pies ● Buns and Breads ● Soufflés, Pudding, Cheesecakes
Module 4 (Credit 1) - International Cuisine	
Learning Outcomes	After learning the module, learners will be able to
	<ol style="list-style-type: none"> 1. Assess international cuisines by exploring traditional and indigenous ingredients, flavor components and cooking techniques. 2. Describe and demonstrate the International cuisine.
Content Outline	<ul style="list-style-type: none"> ● Role of Ingredients and Cooking Methods ● Oriental ● Italian ● Lebanese ● Mexican ● Thai

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Continuous assessment of practical performed by the student.
2. Review of recipes and project on food ingredients and preparation.

References:

1. Arora K. (2008). *Theory of Catering*, Frank Brothers
2. Jeremy MacVeigh, (2008). *International Cuisine Hardcover*, International Culinary Schools at the Art Institutes, Delmar Cengage Learning
3. Margaret, McWilliams (2015). *Food around the world*, Pearson
4. Parvinder S. Bali, (2012). *International Cuisine and Food Production Management* Paperback
5. Patricia Heyman, (2016). *International Cooking: A Culinary Journey* 3rd

Edition, Pearson.

6. Singh V., Joshi A. (2019). *Art and Science of Culinary*, Notion Press.
7. Thangam Philip (2010). *Modern Cookery for Teaching & Trade* Vol. I
6th Edition. Orient Longman

Course Title	Introduction to Communication and Media (Th)
Course Credits	4
Course Outcomes	<p>After going through the course, learners will be able to:</p> <ol style="list-style-type: none"> 1. Understand the basic concepts in Communication 2. Categorize different models used in communication theory 3. Identify Types & Levels of Communication 4. Infer Barriers in Communication. 5. Co-relate growth and Development of media 6. Appraise and assess the need for critical knowledge and the analytical tools required by the children in understanding the media. 7. Relate to the role of policies required to adhere by its media makers. 8. Explore and understand the importance of media in the rapid shift of technology.
Module 1 (Credit 1) - Principles of Communication	
Learning Outcomes	<p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> 1. Understand the basic concepts in Communication 2. Categorize different models used in communication theory
Content Outline	<ol style="list-style-type: none"> 1. Definitions and functions of communication 2. Types & Levels of Communication 3. Barriers in Communication. 4. Growth and Development of media
Module 2 (Credit 1) - Growth and Development of media	
Learning Outcomes	<p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> 1. Illustrate the growth of different media 2. Classify the role of media in society.
Content Outline	<ol style="list-style-type: none"> 1. Folk Media – role and importance in the society 2. Press - role and importance in the society. 3. Radio - role and importance in the society. 4. Cinema – role and importance in the society
Module 3 (Credit 1) - Ethical Issues in Media and Guidelines for Working with children	
Learning Outcomes	<p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> 1. Explore ways for working with children in different age groups 2. Relate to various regulations and laws while working with children at various age levels 3. Co-relate various techniques of observing and assessing children 4. Formulate guidelines related to ethical Issues for working with children
Content Outline	<ol style="list-style-type: none"> 1. Basic communication skills (verbal, non-verbal) 2. Sensitivity training 3. Handling difficult situations 4. Involvement of caregivers 5. Ethical Issues in working with children
Module 4 (Credit 1) - Children and Media – Issues and Concerns	

Learning Outcomes	After learning the module, learners will be able to: <ol style="list-style-type: none"> 1. Study the vital aspects of media forms created for children and their understanding of those forms. 2. Gain an in-depth knowledge of what children watch and why. 3. Understand the role of media in the socialization pattern of children 4. Explain media Advocacy and social responsibility.
Content Outline	<ol style="list-style-type: none"> 1. Children as special audience – characteristics and concerns 2. Children’s media usage – uses and gratifications. 3. Attention, comprehension of media formats and content. 4. Children’s understanding of realism in media. 5. Media and Family

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

Module 1:

1. Assignment of types & levels of Communication
2. Presentation on barriers in communication.
3. Discussion on growth and Development of media

Module 2:

1. **Discussion on role and importance of Folk Media/ Press / Radio/Cinema in the society**

Module 3:

1. Creating a model for sensitivity training of adults
2. Roleplay on handling difficult situations with children
3. Designing a program for involvement of caregivers in developing guidelines for working with children
4. Presentation on ethical Issues in working with children

Module 4:

1. Project on children’s media usage
2. Discussion on media formats and content.
3. Assignment on media and Family

References:

1. Berry, G.L. & Asamen, J.K. 1993. Children & Television: Images in a changing socio-cultural world. Newbury Park. Sage Publications.
2. Drotner, K & Singer D.G. (2008). The international Handbook of Children’s Media and Culture. London. Sage.
3. Gunter, B. & McAleer, J.L. (1990). Children and Television: The One-

eyed Monster? London:Routledge.

4. Hobbs, R. (2012). Digital and Media Literacy =: Connecting Culture and Classroom. ThousandOaks, CA. Sage.
5. Littlejohn, Steven. 1996. Theories of Human Communication. (5th edition) California.Wadsworth Publishing Company.
6. Mehta D. (1994). Mass Communication and Journalism in India. New Delhi.
7. Rosengren, K. & Windhall S. (1989). Media Matter: TV use in Childhood & Adolescence. Norwor(N.J.): Ablex Publ. Corp.
8. Singer, D.G & Singer J.L. (2011) Handbook of Children and the Media. Thousand Oaks, CA.Sage.
9. Sparafkin, J & Liebert, R. (1988). The Early Windo: Effects of Television on Children and Youth.New York. Pergamon Press.
10. Unnikrishnan, N. & Bajpai, S. (1996) Impact of Television on Children. New Delhi: Sage.

Course Title	Mathematics for Business and Management II		
Course Credits	2		
Course Outcomes	After going through the course, learners will be able to		
	1. Define and explain basic concepts in preliminary descriptive statistics, such as frequency tables, histograms and measures of central tendency (mean, mode, median).		
	2. Apply and critically analyze preliminary descriptive statistics techniques to interpret and analyze data.		
	3. Define and explain fundamental concepts in basic probability theory, including sample space, events, axioms of probability, conditional probability.		
	4. Analyze and apply fundamental probability concepts to solve complex real-world problems.		
Module1(Credit1) - Descriptive Statistics and Data Analysis			
Learning Outcomes	After learning the module, learners will be able to		
	1. Apply basic descriptive statistical tools to summarize data.		
	2. Analyze and interpret data using preliminary descriptive statistics.		
Content Outline	<ul style="list-style-type: none">• Preliminary Descriptive Statistics• Introduction• Frequency Tables,• Histograms,• Measures of Central Tendency: Mean, Mode and Median.		
Module2(Credit1) - Fundamentals of Probability Theory			
Learning Outcomes	After learning the module, learners will be able to		
	1. Apply basic probability concepts to analyze simple scenarios.		
	2. Analyze and solve complex problems using fundamental probability principles.		
Content Outline	<ul style="list-style-type: none">• Basic Probability theory,• Introduction,• Sample space and events,• Axioms of Probability• Conditional Probability		

- | |
|---|
| <ul style="list-style-type: none"> • Addition and Multiplication theorem (without proof) • simple examples. |
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Descriptive Statistics Fair: Divide students into groups, and assign each group one fundamental

concept from descriptive statistics: frequency tables, histograms, mean, mode, or median. The goal is for each group to prepare an engaging and interactive booth or station at a "Descriptive Statistics Fair" to educate others about their assigned concept.

2. Data Analysis Showcase: Students will form groups and be provided with a dataset related to a specific industry or real-world scenario (e.g., finance, healthcare, marketing). The objective is for each group to analyze the dataset using descriptive statistics techniques and present their findings in a showcase.
3. Visual Guides Creation: Student groups will create collaborative posters or visual guides detailing basic descriptive statistics concepts. They will present these visual aids to the class to facilitate group discussions and deepen understanding.
4. Complex Data Analysis: Groups will analyze complex datasets using preliminary descriptive statistics techniques. They'll present their analyses, discuss implications, limitations, and critically evaluate interpretations to showcase proficiency in applying and analyzing statistical methods.

References

1. Elhance D. N. *Fundamentals of Statistics*.
2. Gupta S. G. *Statistical Methods*. S. Chand & Co.
3. Aggarwal B. *Business Mathematics & Statistics*. An e-Book Pvt. Limited.
4. Schaum Series. *Statistics*.

Course Title	Bio-Mathematics-II
Course Credits	2
Course Outcomes	After going through the course, learners will be able to
	1. Define and explain the foundational concepts of probability theory, including sample space, events and basic axioms of probability.
	2. Apply conditional probability and probability theorems to solve complex problems in various scenarios.
	3. Define and explain the basic concepts of probability distributions and random variables, including discrete and continuous variables.
	4. Apply probability distributions and mathematical expectation to model and analyze real-world problems.
Module1(Credit1) - Basic Probability Concepts and Theorems	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply basic probability concepts to analyze events.
	2. Utilize conditional probability and theorems in probability calculations.
Content Outline	<ul style="list-style-type: none"> • Basic Probability Theory • Introduction, • Sample space and events, • Axioms of probability, • conditional probability, • addition and multiplication theorem.
Module2(Credit1) - Probability Distributions and Expectations	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply probability distributions to model random phenomena.
	2. Calculate and interpret mathematical expectations in probability distributions.

Content Outline	<ul style="list-style-type: none"> • Probability Distribution • Random variable, • continuous and discrete variables, • mathematical expectation, • Binomial distribution, • Poisson distribution, • Normal distribution
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Interactive Presentations (CO1)

Student groups will create interactive presentations or infographics explaining fundamental probability theory concepts. They will design interactive elements to engage the audience, ensuring a comprehensive understanding of these concepts.

2. Complex Probability Problem Solving (CO2)

Students will work collaboratively in groups to tackle complex probability problems involving conditional probability and theorems. They will present solutions, discuss problem-solving strategies, and critically evaluate their approaches for diverse scenarios.

3. Educational Visuals Creation (CO3)

Groups will collaboratively create educational posters or visual aids explaining probability distributions and random variables. They will present the visuals, encouraging interactive discussions to ensure a comprehensive grasp of these concepts.

4. Real-world Modeling (CO4)

Students will analyze real-world scenarios and model them using probability distributions and mathematical expectation. They will present their models, interpretations, and implications of findings to demonstrate the application of these concepts in practical scenarios.

References:

1. Walpole R. E. and Myers R. H. *Probability and Statistics for Engineers and Scientists*.

2. Veerarajan T. (2002). *Probability, Statistics and Random Process*. Tata Mc Graw-Hill Education.
3. Grinstead C. and Snell J. (1997). *Introduction to Probability*. American Mathematical Society.
4. Yates, R. D., & Goodman, D.J. (1998). *Probability and Stochastic Processes*. John Wiley and Sons.

Course Title	Advanced Mathematics for competitive examination
Course Credits	2
Course Outcomes	After completing this course, learner will be able to
	1. Demonstrate a foundational understanding of basic mathematical concepts including Average, Percentage, Profit and Loss, Commission and Discount, Simple and Compound Interest, and Ratio and Proportion.
	2. Analyze and evaluate the intricacies of mathematical concepts such as Average, Percentage, Profit and Loss, Commission and Discount, Simple and Compound Interest, and Ratio and Proportion.
	3. Demonstrate a foundational understanding of mathematical concepts including Mixture and Alligation, Partnership, Problems based on ages, Work and Time, Work and wages problems.
	4. Analyze and evaluate the intricacies of mathematical principles such as Mixture and Alligation, Partnership, Problems based on ages, Work and Time, and Work and wages problems.
Module1(Credit1) - Numerical Aptitude I	
Learning Outcomes	After learning this module, learner will be able to
	1. Demonstrate a proficient understanding of fundamental mathematical concepts such as Average, Percentage, Profit and Loss, Commission and Discount, Simple and Compound Interest, and Ratio and Proportion.
	2. Critically analyze and synthesize the intricacies of mathematical principles including Average, Percentage, Profit and Loss, Commission and Discount, Simple and Compound Interest, and Ratio and Proportion
Content Outline	<ul style="list-style-type: none"> • Average, Percentage • Profit and Loss • Commission and Discount • Simple and compound interest • Ratio and proportion
Module2(Credit1) - Numerical Aptitude II	
Learning Outcomes	After learning this module, learner will be able to
	1. Demonstrate a proficient understanding of fundamental mathematical concepts such as Mixture and Alligation, Partnership, Problems based on ages, Work and Time, Work and wages problems.

	2. Critically analyze and synthesize the intricacies of mathematical principles including Mixture and Alligation, Partnership, Problems based on ages, Work and Time, and Work and wages problems.
Content Outline	<ul style="list-style-type: none"> • Mixture and Alligation • Partnership • Problems based on ages • Work and Time • Work and wages

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

1. Problems from banking examinations are to be asked to be solved to the students.
2. Various quantitative aptitude tests can be solved by students.

Reference Books:

1. Verma R. *Fast Track Objective Arithmetic* (Complete revised edition). Arihant Publications(India) Limited.
2. Aggarwal R. S. *Quantitative Aptitude for Competitive Examinations*.
3. Aggarwal R. S. *Objective Arithmetic (SSC and Railway Exam Special)*.
4. Sharma A. *Teach Yourself Quantitative Aptitude*.

Course Title	Microbial infections and human defence mechanisms (THEORY)
Course Credits	4
Course Outcomes	<p>After going through the course, learners will be able to</p> <ol style="list-style-type: none"> 1. Discuss how human body fights against infections. 2. Examine why some individuals fall ill more often? Outline types of hypersensitivity. 3. Differentiate between different types of vaccines. Explain in detail factors affecting infection 4. Infer the characteristics of probiotics for selection 5. Analyse various fermented products for their probiotic properties
Module 1 (Credit 1) - Basics of Infection Biology	
Learning Outcomes	<p>After going through the course, learners will be able to,</p> <ol style="list-style-type: none"> 1. To outline important terminologies in infection biology. 2. To analyze the different lines of immunological defense exhibited by human body.
Content Outline	<ul style="list-style-type: none"> • Important terminology: Primary infection, secondary infection. Contagious infection, occupational disorder, clinical infection, subclinical infection, Zoonoses, genetic disorder, vector borne infection. • Factors affecting infection: <ul style="list-style-type: none"> ○ Microbial factors: adherence, invasion, role of virulence factors in invasion, colonization & its effects. ○ Host factors: natural resistance, species resistance, racial resistance, individual resistance. ○ Why do some individuals fall more sick often?: Age, nutrition, personal hygiene, stress, hormones, Addiction to drugs/ alcohol. Interaction between Microbes & hosts is dynamic.
Module 2 (Credit 1) - Human system to fight infection	
Learning Outcomes	<p>After going through the course, learners will be able to,</p> <ol style="list-style-type: none"> 1. To classify the host and pathogen factors affecting infection

Content Outline	<ul style="list-style-type: none"> • First line of Defense: for skin, respiratory tract, gastrointestinal tract, genitourinary tract, eyes. • Second line of defense: Phagocytosis, Inflammation • Third line of defense: Brief introduction to antibody mediated & cell mediated immunity.
	<ul style="list-style-type: none"> • Inflammation and allergic reactions: Hallmarks of inflammation and types of hypersensitivity • Vaccines and Immunization schedule
Module 3 (Credit1) - Prebiotics	
Learning Outcomes	<p>After going through the course, learners will be able to,</p> <ol style="list-style-type: none"> 1. To define prebiotics 2. To evaluate the importance of gut microflora in maintaining good Health
Content Outline	<ul style="list-style-type: none"> • Concept, definition, criteria, history Probiotic microorganisms, safety of probiotic microorganisms, legal status of probiotics, Characteristics of Probiotics for selection. • Tolerance to additives, stability during storage, stability during passage to intestinal sites, minimum effective dose, maintenance of probiotic microorganisms
Module 4 (Credit1) - Probiotic microorganisms	
Learning Outcomes	<p>After going through the course, learners will be able to,</p> <ol style="list-style-type: none"> 1. To discuss role of probiotics in health and diseases
Content Outline	<ul style="list-style-type: none"> • Role of probiotics in health and disease: Prevention and treatment of gastro-intestinal bacterial infection. • Health benefits of Prebiotics, Mineral absorption, immune response, cancer prevention, IBD, elderly health and infant health

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Factors Affecting Infection

- Activity: Presentation on microbial factors affecting infection, including adherence, invasion, and virulence factors.
- Discussion on host factors such as natural, species, racial, and individual resistance.
- Explanation of why certain individuals are more susceptible to

infections due to factors like age, nutrition, hygiene, stress, and lifestyle choices.

- Methodology: Lecture, interactive discussion.
- Expected Outcomes: Understanding the dynamic interaction between microbes and hosts, and awareness of factors influencing susceptibility to infections.

2. Defence Mechanisms: First Line of Defence

- Activity: Presentation on the first line of defence mechanisms for various body systems (skin, respiratory tract, gastrointestinal tract, genitourinary tract, eyes).
- Discussion on the role of physical barriers, mucosal surfaces, and resident microbiota in preventing infections.
- Methodology: Lecture, visual aids.
- Expected Outcomes: Understanding of the importance of the first line of defence in preventing microbial invasion and maintaining homeostasis.

3. Defence Mechanisms: Second Line of Defense

- Activity: Presentation on phagocytosis and inflammation as key components of the second line of defence.
- Demonstration of phagocytosis process using microscopy or animations.
- Methodology: Lecture, demonstration.
- Expected Outcomes: Understanding of how phagocytosis and inflammation contribute to the elimination of pathogens and tissue repair.

4. Defence Mechanisms: Third Line of Defense and Immunology

- Activity: Brief introduction to antibody-mediated and cell-mediated immunity.
- Explanation of the role of lymphocytes, cytokines, and immune memory in adaptive immunity.
- Methodology: Lecture, visual aids.
- Expected Outcomes: Basic understanding of adaptive immunity and the mechanisms underlying antibody and cell-mediated responses.

5. Inflammation and Allergic Reactions

- Activity: Presentation on the hallmarks of inflammation and the types of hypersensitivity reactions.
- Discussion on the immune mechanisms underlying allergies and autoimmune diseases.
- Methodology: Lecture, case studies.
- Expected Outcomes: Understanding of the inflammatory response and recognition of different types of hypersensitivity reactions.

6. Vaccines and Immunization Schedule

- Activity: Overview of vaccines, including their concept, types, and sources.
- Explanation of the importance of immunization schedules in preventing infectious diseases.
- Methodology: Lecture, discussion.
- Expected Outcomes: Familiarity with the principles of vaccination and awareness of the importance of immunization programs.

7. Prebiotics and Probiotics

- Activity: Presentation on the concept, criteria, types, and sources of prebiotics and probiotics.
- Discussion on the health benefits of prebiotics, including their effects on gut microflora, mineral absorption, immune response, and disease prevention.
- Explanation of the characteristics of probiotics and their role in maintaining gut health.
- Methodology: Lecture, case studies.
- Expected Outcomes: Understanding of the potential health benefits of prebiotics and probiotics, and knowledge of their selection criteria and applications.

References:

1. Tortora, G.J., Funke, B.R., Case, C.L, 2016. Microbiology: An introduction. 12th Edition, Benjamin Pub. Co. NY
2. Indira T. Kudva, Nancy A. Cornick, Paul J. Plummer, Qijing Zhang, Tracy L. Nicholson, John P. Bannantine, Bryan H. Bellair 2016. Virulence mechanisms of bacterial pathogens. 5th edition. ISBN: 978-1-555-81927-9.
3. Ananthnarayan, R. and C.E, Jayaram Panikar, 2020. Ananthnarayan and Panikar's Textbook of **Microbiology, 10th edition, Universities Press.**
4. Cruickshank K.R., 2005, Medical Microbiology Vol I & II Livingstone, Longman. (Topic II AND IV)
5. Chakraborty P. 2009, Textbook of Medical Parasitology, Central Publications, Kolkata, India.
6. Salminen. S and Wright, A. V. 1998. Lactic Acid Bacteria, Marcel Dekker
7. Glenn R. G. Marcel R. 2008. Handbook of Prebiotics CRC press
8. Lee Y K, Salminen S 2009. Handbook of Probiotics and Prebiotics. A John Willey and Sons Inc. Publication.
9. Sandholm T. M. Saarela M. 2003. Functional Dairy Products CRC Woodhead Publishing Ltd.

Course Title	Physics in Daily Life
Course Credits	4
Course Outcomes	After Completion of this course the learner will be able to
	1. Analyze renewable energy sources for addressing global energy challenges.
	2. Evaluate energy consumption patterns and their climate change implications.
	3. Apply energy use quantification and carbon footprint concepts.
	4. Design strategies for minimizing energy use and adopting electric vehicles.
Module 1 (Credit 1) - Energy basics	
Learning Outcomes	After learning the module, learners will be able to
	1. Analyze renewable energy sources like solar, wind, thermal, and hydroelectric power.
	2. Connect some daily life Conduct analysis of energy bills to understand consumption patterns and conservation measures
Content Outline	<ul style="list-style-type: none"> Basics of renewable energy solar, wind, thermal, and hydroelectric power. Energy consumption patterns and global energy challenges. Importance of energy conservation in addressing climate change and sustainability goals, Analysis of energy bills
Module 2 (Credit 1) - Energy and Climate change	
Learning Outcomes	After learning the module, learners will be able to
	1. Quantify energy use in easily understandable terms
	2. Assess carbon footprint implications.
Content Outline	<ul style="list-style-type: none"> Quantifying energy use in simple terms carbon footprint Climate change has happened
Module 3 (Credit 1) - Energy use and Carbon emission	
Learning	After learning the module, learners will be able to

Outcomes	1. Recognize energy as both a challenge and a solution.
	2. Develop strategies to achieve a one-third reduction in energy usage and produce the remaining energy locally through solar power
Course Content	<ul style="list-style-type: none"> • Energy as a problem and as a solution • energy use minimization by 1/3rd • Minimizing energy use by 1/3rd • Generating the remaining 1/3rd of energy locally by solar
Module 4 (Credit 1) - Introduction to Eclectic Vehicle	
Learning Outcomes	After learning the module, learners will be able to
	1. Apply knowledge of electric vehicle components for practical understanding
	2. Analyze environmental differences between battery electric and conventional vehicles.
Course Outcomes	<ul style="list-style-type: none"> • Electric vehicles: battery electric vehicles (BEVs) • Basic components and functionality of electric vehicles: electric motors, batteries, power electronics, and charging infrastructure. • Comparison of environmental impacts between conventional vehicles and electric vehicles

Assignments/Activities towards Comprehensive Continuous Evaluation

(CCE):

Module 1

In the first project, students embark on a Renewable Energy Showcase. Armed with materials like models or diagrams representing solar panels, wind turbines, thermal power plants, and hydroelectric dams, they delve into the analysis of renewable energy sources. Through meticulous data collection and analysis, they evaluate the feasibility and advantages of each source in different geographical contexts. Following thorough research and experimentation, students compile their findings into a comprehensive report detailing the potential contributions of renewable energy to the global energy mix, providing valuable insights for sustainable energy planning.

Module 2

The second project entails a Carbon Footprint Audit. Equipped with energy consumption data such as electricity bills and carbon footprint calculators or spreadsheets, students conduct a meticulous examination of their own energy usage patterns. Through diligent data collection and analysis, they quantify their carbon footprint and identify areas of high energy consumption. Armed with these findings, students devise strategies for reducing carbon emissions, documenting their journey and insights in a detailed report. This hands-on experience empowers students to take ownership of their energy consumption and contribute to climate change mitigation efforts.

Module 3

In the third module focused on Energy Use and Carbon Emission, students undertake an Energy Reduction Challenge. Armed with energy consumption data and simulation tools, they develop strategies to achieve a one-third reduction in energy usage while promoting local solar energy generation. Through data-driven analysis and simulation, students explore the feasibility of integrating energy-efficient technologies and solar power solutions into their daily lives. Their efforts culminate in a comprehensive report outlining their strategies, findings, and recommendations for achieving sustainable energy consumption patterns and promoting renewable energy adoption within their communities.

Module 4

In this case, students engage in Electric Vehicle Component Analysis. Utilizing electric vehicle components, diagrams, and demonstration models, they delve into the intricacies of electric vehicle technology. Through hands-on exploration and analysis, students dissect the basic components and functionality of electric vehicles, comparing environmental impacts between battery electric vehicles (BEVs) and conventional vehicles. Their findings are meticulously documented in a detailed report, providing valuable insights into the potential of electric vehicles to mitigate climate change and revolutionize the transportation sector. This project empowers students to become informed advocates for sustainable transportation solutions.

References:

1. Solanki, C. S. (2019). Energy Swaraj: My Experiments with Solar Truth (1st ed.). NotionPress.

2. Rasheed, H. (2022). An introduction to energy: Sources, uses, impact and solutions. Lulu.com.
3. Rao, K. M. (2019). An introduction to electric vehicles (1st ed.). Notion
4. Swayam - https://onlinecourses.swayam2.ac.in/aic22_ge31/preview
5. <https://www.youtube.com/watch?v=7ihCH0p2oXM&list=PLYkIMEpaP9zGIouFBCimG98d7YH4ChKq0>

Course Title	Basic Fashion Illustration
Course Credits	4
Course Outcomes	After going through the course, learners will be able to,
	1. Develop sketching skills with a focus on proportion, movement, and style.
	2. Enable to develop skills in designing fashion accessories
	3. Develop skills to visually communicate design ideas through illustrations, including garment details, textures, and color palettes.
	4. Enhance ability to draw fashion figures and clothing
Module 1(Credit 1) -	
Learning Outcomes	After learning the module, learners will be able to,
	<ol style="list-style-type: none"> 1. Acquire the skill to sketch fashion figures and garments, with a focus on proportion, movement, and style. 2. Apply knowledge of anatomy and colour schemes in artistic way.
Content Outline	<ol style="list-style-type: none"> 1. Basics of design <ul style="list-style-type: none"> ● Elements and Principles of design 2. Human Anatomy <ul style="list-style-type: none"> ● Introduction to human anatomy and proportions ● Study of human body parts -Man, woman & child.. 3. Basic color schemes- achromatic, analogues, monochromatic, complimentary, and neutral.
Module 2(Credit 1) -	
Learning Outcomes	After learning the module, learners will be able to,
	1. Develop basic croqui drawing techniques illustrating various movements and mechanical poses.
	2. Acquire skills in croqui drawings and depicting movement.

Content Outline	<ol style="list-style-type: none"> 1. Croqui and movement. <ul style="list-style-type: none"> • Croqui and movement -Basic croqui drawing • showing different movements and mechanical poses, Fleshing of block figures (leg and hand movement, front and 3/4view)8 head, 10 head and 12 head croqui for women, men and children
Module 3 (Credit 1) -	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Visually communicate design ideas through fashion illustrations. 2. Develop new illustrations for accessories and Necklines, collars, Sleeves.
Content Outline	<ol style="list-style-type: none"> 1. Accessory designing <ul style="list-style-type: none"> • Accessory details to show Indian and western look that go well with the garment (1 or 2 examples to give basic concepts) such as jewelry, bags, shoes, hats, watches, purses, umbrella, hairstyle, etc. 2. Basic necklines, collar, sleeve and variation. <ul style="list-style-type: none"> • Drawing of different neckline patterns (any 10) • Drawing of different color patterns in (any 10) • Drawing of different sleeve pattern any (any 10)
Module 4 (Credit 1) -	
Learning Outcomes	<p>After learning the module, learners will be able to,</p> <ol style="list-style-type: none"> 1. Examine the law of fabric suspension. 2. Apply knowledge by adopting at least five different fabrics on a garment.
Content Outline	<ol style="list-style-type: none"> 1. Law of fabric suspension <ul style="list-style-type: none"> • Rendering different fabrics and fall such as cotton, chiffon, silk, pleats, frills, ruffles, gathers, denim, leather for Terry Pile effect, etc. adoption of any five fabrics on garment. • Procure fabric sample made out of specific materials and render it while observing on 12 head croqui (any 2 samples)

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

- Continuous internal evaluation of 50 marks
- Two Modules = 25 marks each

References:

1. Khurana P. Sethi M., (2007) *Introduction to Fashion Technology* Laxmi Publications.
2. Chapman N., Cheek J. (2012), *Creative Fashion Drawing: A Complete Guide to Design and Illustration Styles* (Essential Guide to Drawing), Arcturus Publishing Ltd
3. Lafuent M. (2008), *Fashion Illustration Techniques (Drawing)*, Taschen GmbH Publishing
4. Singhal R., Bharali K. (2010) *Fashion Rendering*, Om books publications
5. Karampuri D., Bhosale J. (2012). *Liberty Fashion Sketch Book*, Liberty Publication
6. Takamura Z., (2012), *Fashion Illustration Techniques*, Rockport Publishers
7. Mc Kelvey, Janine K. W., (2007), *Illustrating fashion*, Blackwell Publishers Ltd
8. Takamura Z., (2012), *Fashion Illustration Techniques: A Super Reference Book for Beginners* Paperback – Import,
9. Manuela Brambatti M., (2017) *Fashion Illustration and Design: Methods & Techniques for Achieving Professional Results*, Promo press.

Course Title	Amazing Animal World
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	1. Interpret the uniqueness of the animals enlisted
	2. Relate the distinguishing characteristics with the adaptations
	3. Create awareness of the wonders of animal kingdom through activities
	4. Prepare models of the animals to illustrate their unique characters
Module 1 (Credit 1) - Fauna of National / State	
Learning Outcomes	After learning the module, learners will be able to
	1. Enlist the distinguished characteristics
	2. Evaluate the unique characteristics as per the adaptations
Content Outline	<p>General Morphology, Habits and habitat and Significance:</p> <ul style="list-style-type: none"> • Butterflies - the flying jewels - Blue Mormon, Kaiser-i-Hind • Herpetofauna of India- <i>Rhacophorus malabaricus</i>, Monitor lizard, Chameleon • Feathered Bipeds: Yellow footed green Pigeon, Peacock • Mammals of India: Giant Indian Squirrel, Gangetic Dolphin, Royal Bengal Tiger, Elephant, Swamp Deer, Rhinoceros
Module 2 (Credit 1) - Amazing animals	
Learning Outcomes	After learning the module, learners will be able to
	1. Enlist unique characteristics of the animals
	2. Interpret the significance of the unique characteristics

Content Outline	<p>General Morphology, Habits and habitat and Unique features:</p> <ul style="list-style-type: none"> • Jelly fish - <i>A. victoria</i> • Pistol Shrimp • Suicidal Ant • Praying mantis • Pearl oysters
	<ul style="list-style-type: none"> • Electric eel • Puffer fish • Axolotl larva • Pebble toad • Flying Snake • Indian Cuckoo • Red Panda
Module 3 (Credit 1) - Incredible Fauna	
Learning Outcomes	After learning the module, learners will be able to
	1. Enlist the recently discovered fauna
	2. Justify the uniqueness of the fauna listed
Content Outline	<ul style="list-style-type: none"> • Recently discovered fauna: <ul style="list-style-type: none"> ○ Tapir Frog ○ Stealthy Gecko ○ Rose-rainbow fish ○ Southern maned sloth ○ Sea anemone from Japan – <i>Stylobatus</i> • Unique fauna: <ul style="list-style-type: none"> ○ Kangaroo ○ Duck-billed Platypus ○ Penguins ○ Whale ○ Sphenodon
Module 4 (Credit 1) - Marvels of animals	
Learning Outcomes	After learning the module, learners will be able to
	1. Relate the marvels with their application in the practical world
	2. Evaluate the significance of the marvels for the survival of the animals

Content Outline	<ul style="list-style-type: none"> • Coral reef • Bioluminescent animal - Fireflies, Angler fish • Parental care in fishes • Parental care in amphibians • Migration in birds • Social organization - Honey bee, Hanuman Langur • Hibernation/aestivation in frog • Echolocation - Bats, Dolphin
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Presentation based on related topics
2. Preparation models of the animals to illustrate their unique characters

Some illustrative assignments for students

1. Module 1 Project: Animal Adaptation Garden

Students will create a miniature garden or terrarium representing a specific habitat (e.g., desert, rainforest) and populate it with plant species and small animal figurines. They will research the adaptations of animals native to their chosen habitat and strategically place the figurines within the garden to reflect these adaptations. For example, animals with camouflage adaptations could be placed among plants with similar colors and patterns. This project will not only reinforce understanding of animal adaptations but also provide hands-on experience in designing and creating habitat models.

2. Module 2 Project: DIY Wildlife Camera Trap

Students will design and build a simple wildlife camera trap using basic materials such as cardboard, a digital camera, motion sensors, and infrared LEDs. They will learn about animal behavior and habitat preferences, then strategically place their camera traps in outdoor locations such as parks or nature reserves to observe wildlife activity. This project will allow students to apply their knowledge of animal behavior and habitat ecology in a real-world setting while also gaining practical skills in electronics and DIY construction.

3. Module 3 Project: Neighborhood Biodiversity Survey

Students will conduct a biodiversity survey in their neighborhood or local park to identify and document animal species present in the area. Using basic tools such as binoculars, field guides, and smartphone apps, they will observe and record sightings of birds, insects, mammals, and other wildlife. Students will then compile their

data and create a report or presentation highlighting the diversity of species found, as well as any trends or patterns observed. This project will enable students to apply their knowledge of animal taxonomy and ecology while also contributing to scientific research and conservation efforts in their community.

4. Module 4 Project: Animal Rescue Simulation

Students will participate in a simulated animal rescue operation, either in-person or through virtual role-play scenarios. Working in teams, they will assume the roles of wildlife rehabilitators, veterinarians, and conservationists tasked with rescuing and rehabilitating injured or endangered animals. Using case studies and real-world scenarios, students will apply their knowledge of animal behavior, physiology, and conservation biology to make informed decisions and develop effective rescue strategies. This project will provide hands-on experience in wildlife management and conservation while also fostering teamwork and critical thinking skills.

References:

1. Jordan, E. L., & Verma, P. S. (2013). Chordate Zoology Volume I. S. Chand and Co. Ltd.
2. Jordan, E. L., & Verma, P. S. (2022). Invertebrate Zoology. S. Chand and Co. Ltd.
3. Majumuria, T. C. (1962). A Textbook of Invertebrate Zoology: Vol. I. (1st ed.). S. Nagin Co.
4. Dhami, P. S., & Dharmi, J. K. (2006). Chordate Zoology. R. Chand and Co.
5. Dhami, P. S., & Dharmi, J. K. (2021). Invertebrate Zoology. R. Chand and Co.
6. Moore, J. (2006). Introduction to Vertebrates. Cambridge University Press.
7. Miller, S. A., & Harley, J. B. (1999). Zoology. Tata McGraw Hill.
8. Kotpal, R. L. (2013). Modern Textbook of Zoology, Invertebrates. (12th ed.). Rastogi Publications.
9. Parker, T. J., & Haswell, W. A. (1992). A Textbook of Zoology, Invertebrates. Vol. I (1st Indian Edition). CBS Publishers and Distributors Pvt. Ltd.
10. Parker, T. J., & Haswell, W. A. (1992). A Textbook of Zoology, Invertebrates. Vol. I (1st Indian Edition). CBS Publishers and Distributors Pvt. Ltd.

Course Title	Principles of Management (Theory)
Course Credits	4
Course Outcomes	After going through the course, learners will be able to
	1. Explain and apply the concepts, principles and functions of management.
	2. Categorize management principles in family living at micro level as well as macro level.
Module 1 (Credit 1) - Introduction to Management	
Learning Outcomes	After learning the module, learners will be able to understand the design philosophy to create products, environment and experience accessible and usable to a maximum number of people
	1. Identify and describe the main functions of management.
	2. Assess the importance of management & differentiate between various levels of management.
	3. Recognize the different roles and skills required for effective management
Content Outline	<ol style="list-style-type: none"> 1. Definition and Importance of Management <ul style="list-style-type: none"> • What is Management? • The Role of Managers in Organizations 2. Functions of management <ul style="list-style-type: none"> • Planning • Organizing • Leadership • Controlling • Evaluation 3. Levels of Management <ul style="list-style-type: none"> • Top-Level Management • Middle-Level Management • First-Line Management 4. Managerial Roles and Skills <ul style="list-style-type: none"> • Interpersonal Roles • Informational Roles • Decisional Roles
Module 2 (Credit 1) - Planning and Decision Making	
Learning Outcomes	After completing the course, it will help the students to an understanding the applications of the designs
	1. Understand the steps involved in decision-making.

	2. Comprehend the significance of planning and its process & set effective goals.
Content Outline	<ol style="list-style-type: none"> 1. Planning – meaning, importance, characteristics and steps in planning and types of plans-mental or oral plan, written plan, detail and overall plan, singleuse plan. 2. Goals- Meaning, types- long term, short term, individual and group goals. 3. Decision Making -Definition and importance of decision making in management,Types of decisions-Habitual, Intellectual, Individual and Group and Decision Making Process 4. Tools for Decision Making - SWOT Analysis (Strengths, Weaknesses,Opportunities, Threats)and PEST Analysis (Political, Economic, Social, Technological)
Module 3(Credit 1) - Organizing and Staffing	
Learning Outcomes	After completing the course, it will help the students to an understanding theapplications of the designs
	1. Understand the importance and process of delegation and decentralization.
	2. Apply the staffing process including recruitment, selection, and training.
Content Outline	<ol style="list-style-type: none"> 1. Organizing: Definition and Process, Types of Organizational Structures:Functional, Divisional, Matrix 2. Delegation and Decentralization - Importance of Delegation, Process ofDelegation and Centralization vs. Decentralization 3. Staffing: Importance and Process , Recruitment, Selection and Training andDevelopment 4. Managing Teams and Groups -Difference Between Teams and Groups, Stagesof Team Development and Effective Team Management
Module 4 Credit 1) - Leading and Controlling	
Learning Outcomes	After completing the course, it will help the students to an understanding theapplications of the designs
	1. Understand different motivational theories and their application.
	2. Recognize the importance of communication and how to overcome barriers.
	3. Comprehend the control process and utilize various controlling tools effectively.

Content Outline	<ol style="list-style-type: none"> 1. Leadership: Definition and Importance - Leadership vs. Management and Leadership Styles: Autocratic, Democratic 2. Controlling- Meaning and Introduction, Phases of controlling- energizing, checking & adjusting and Principles (factors) in controlling. Supervision- definition and types and techniques of good supervision 3. Evaluation – meaning, importance, types-general and detailed evaluation. 4. Communication - Importance of Communication in Management, Types of Communication: Verbal, Non-Verbal, Written and Barriers to Effective Communication
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Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):

1. Case Studies: To provide practical examples and applications.
2. Group Discussions and Activities: To encourage interaction and deeper understanding.
3. Identify and list down 3 values and 3 goals of a student followed by discussion in a class
4. Plan an activity applying management process like going for a picnic/movie/giving a birthday party and write a report for the same.
5. Identify an incident in your life where you took a right decision as well as identify an incident in your life where you took wrong decisions giving reasons
6. Identify and list down your human resources and how it helps you to make decisions.

References:

1. Saksena S.C., (1977): Business Administration and Management Sahitya Bawan, Agra.
2. Chatterjee S.S. (1980): 'An introduction to management- Its principles and techniques' World Press Pvt. Ltd, Calcutta.
3. Gross, Crandall and Knoll. (1980) Management for Modern Families. Prentice Hall Inc.
4. Deacon R.E. and Firebough F.M. (1981) Family Resource management, principles and application. Allyn Bacon. ISBN: 0205069940 / 0-205-06994-0
5. Swanson V. (1981): Introduction to Home Management. Macmillan Publishers, London.

6. Gupta, C.B. (1983) Principles and practice of Management. Nataional PublishingHouse, New Delhi. ISBN: 8127200530
7. Horne, James. (1983): Financial management and policy. Prentice Hall of India Pvt. Ltd.Delhi. ISBN: 0133167615 / 0-13-316761-5
8. Chatterjee S.S. Management (1988): Introduction, its Principles and Techniques.
A Prentice Hall Pvt. Ltd. Calcutta. ISBN: 9788120333840
10. Nickel P. and Dorsey J.M. (1991): Management in Family Living 4th edition Wiley and Eastern,New Delhi.