



**SNDT Women's University, Mumbai**

**Open Electives Course (OEC)**  
for  
**Students of Faculty of Commerce &  
Management**  
for  
**Semester - IV**

As Per NEP – 2020

**Syllabus**  
**(W.E.F. Academic Year 2025-26)**

| Sr. No. | Subject Code | Title  |
|---------|--------------|--|
| 1       | 40410111     | English for Corporate Communication<br>(for English medium students)               |
| 2       | 40410112     | English Language Skills for Employability<br>(For the Non-English medium students) |
| 3       | 40410211     | ભારત અને ભારતીયતા  |
| 4       | 40410511     | छन्दपरिचयः   |
| 5       | 40410311     | भारतीय महिलाओं का अनूदित<br>कथा साहित्य  |
| 6       | 404104 11    | શબ્દાંકન   |
| 7       | 40411111     | Sociology of Disaster Management   |
| 8       | 40411011     | Media Psychology   |
| 9       | 40410911     | Women and Political Participation in India   |
| 10      | 40410811     | Subaltern Movements in India   |
| 11      | 40410812     | Travel Formalities   |
| 12      | 40410711     | Geography of Manmade Disaster  |
| 13      | 40410611     | Economics of Insurance   |
| 14      | 40444221     | Social Media Management (Pr)   |
| 15      | 40444222     | Digital Marketing (Pr)   |
| 16      | 40444521     | Jewelry Essentials (Pr)  |
| 17      | 40444512     | Precious and Semi-Precious Stones (Th and Pr)                                      |
| 18      | 40441221     | Tie and Dye (P)  |
| 19      | 40441121     | Festival songs   |
| 20      | 40443111     | Introduction to AI   |
| 21      | 40443111     | Introduction to AI   |

|    |          |  |
|----|----------|--|
| 22 | 40443111 | Introduction to AI   |
| 23 | 40430511 | Guiding Children's Growth & Behavior                               |
| 24 | 40430921 | Fashion Accessory Making (Pr)                                      |
| 25 | 40430311 | Food Labels (Th)   |
| 26 | 40430111 | Culinary Science - II (Th) (2 Th)                                  |
| 27 | 40430111 | Health for All*  |
| 28 | 40430411 | Caring for the Elderly (Th)  |
| 29 | 40431011 | Applications of Basic Biotechnology for Community Development - II |
| 30 | 40430221 | Nutrition in Health & Disease (Pr)                                 |
| 31 | 40430222 | Clinical Pathophysiology (Pr)                                      |
| 32 | 40430811 | The Art of Furniture Design (Pr)                                   |
| 33 | 40430711 | Surface Ornamentation on Textiles                                  |
| 34 | 40432311 | Mathematical Techniques for competitive examination                |
| 35 | 40432312 | ओ इ सी : स्पर्धा परीक्षासाठी गणित तंत्र भाग – २                    |
| 36 | 40432313 | Reasoning for Competitive Examination Part II                      |
| 37 | 40432314 | Basic Statistics   |
| 38 | 40432511 | Health and Hygiene in Daily Life                                   |
| 39 | 40432512 | Home Composting: Sustainable Waste Management at Home              |
| 40 | 40432211 | Energy Sources   |
| 41 | 40432411 | Human Parasitic Diseases   |
| 42 | 40435211 | Introduction to Canva  |
| 43 | 40435212 | Management Information Systems (MIS)                               |
| 44 | 40435213 | Introduction to Entrepreneurship                                   |
| 45 | 40435411 | Data Visualization   |

|    |          |                                    |
|----|----------|------------------------------------|
| 46 | 40435412 | Web Content Management Systems     |
| 47 | 40435413 | Graphic Design                     |
| 48 | 40434311 | Blood Bank and Related Technique's |
| 49 | 40432111 | Waste Management                   |
| 50 | 40432611 | Medicinal Plants                   |

|   |   |
|---|---|
| <b>Course Title</b>   | <b>Writing in English for Corporate Communication<br/>(for the English medium students)</b>   |
| <b>Course Credits</b>   | <b>2</b>  |
| <b>Course Outcomes</b>  | <b>After going through the course, learners will be able to :</b>   |
|   | 1. Handle internal communication such as documenting meetings, drafting circulars, newsletters, announcements, and representations from employees.  |
|   | 2. Make advertisements for newspapers and other print media.  |
|   | 3. Create brochures and flyers for marketing brands.  |
|   | 4. Compile a set of slides for making presentations and pitch deck.   |
| <b>Module 1 (Credit 1) - Internal Communication</b>                         |   |
| <b>Learning Outcomes</b>  | <b>After learning the module, learners will be able to:</b>   |
|   | 1. Draft notices, agenda and minutes of meetings.   |
|   | 2. Prepare circulars, announcements and newsletters.  |
|   | 3. Draft letters of representations, regrets, appreciations, memos, gratitude, and others.  |
| <b>Content Outline</b>  | <b>1. Documenting meetings</b><br>2. Circulars ( holidays, change in leadership, training programs etc.), announcements (bonuses, incentives, celebrations, commemoration etc.), and newsletters from organisations.<br>3. Two-Way communication between the employer and employee. |
| <b>Module 2 (Credit 1) - Writing for Advertisements and Brand Marketing</b> |   |
|   | <b>After learning this module, learners will be able to</b>   |

|                          |   |
|--------------------------|---|
| <b>Learning Outcomes</b> | 1. Prepare advertisements and flyers.   |
|                          | 2. Making pitch decks and brochures.  |
| <b>Content Outline</b>   | <p>2.1 Content for advertisements- heading, body, attractive captions etc.</p> <p>2.2 Slides for advertising and marketing a brand- making slides giving details of an organisation, its products or services, offers, features of products/services, social media links etc,</p> |

### **Assignments/Activities towards Comprehensive Continuous Evaluation**

**(CCE):**

#### **External Evaluation**

Q.1 Content for Advertisements for newspapers 1 /3 - 15 marks

Q.2. Making brochures or flyers for social media handles 1 /3 - 15 marks.

Q.3. Creating a pitch deck (at least 6 slides) ⅓ - 20 marks.

#### **Bibliography**

- Carlton, Dixie Maria. *Advertising Branding and Marketing*. 2017.
- Indeed Editorial Team. *How to Write an Effective Advertisement: A Complete Guide*. March 2025. Roman, Kenneth, and Joel Raphaelson. *Writing That Works*. Collins Reference, 2000.
- Schwab, Victor. *How to Write a Good Advertisement*. Imusti, 2013.
- Winterson, David. *Advertising and Corporate Communication*. Centrum Press, 2010.

|                              |   |
|------------------------------|---|
| <b>Course Title</b>          | <b>English Language Skills for Employability (for non-English medium students)</b>  |
| <b>Course Credits</b>        | <b>2</b>  |
| <b>Course Outcomes</b>       | <b>After going through the course, learners will be able to :</b>   |
|                              | 1.Comprehend and analyze texts related to the workplace.  |
|                              | 2.Demonstrate verbal, nonverbal and written communication skills with specific reference to workplace situations.   |
|                              | 3.Develop effective written communication in professional contexts..  |
|                              | 4.Demonstrate digital literacy and the ability to understand and use technology.  |
| <b>Module 1 (Credit 1) -</b> | <b>Reading and Comprehending Literary Texts</b>   |
| <b>Learning Outcomes</b>     | <b>After learning the module, learners will be able to:</b>   |
|                              | <ol style="list-style-type: none"> <li>1. Read and analyse literary pieces by relating to situations,characters in professional settings.</li> <li>2. Respond to comprehension based questions and short answer type analytical questions based on the texts</li> </ol> |
| <b>Content Outline</b>       | 1.1 Poems   |
|                              | <ol style="list-style-type: none"> <li>1."Goodbye Party for Miss Pushpa T.S". Nissim Ezekiel</li> <li>2."The Railway Clerk" Nissim Ezekiel</li> </ol>   |
|                              | 1.2 Short stories <ol style="list-style-type: none"> <li>1."Forty Five a Month" by RK Narayan from <i>Malgudi days</i></li> </ol>   |

|  |  |
|--|--|
|  | <p>2. "Retrospective" by Githa Hariharan from <i>Imaging the Other</i></p> |
|--|--|



| <b>Module 2 (Credit 1) - Functional English</b> |  |
|---|--|
| <b>Learning Outcomes</b>                        | <b>After learning this module, learners will be able to</b>  |
|   | 1. Communicate clearly and effectively in a professional setting, using appropriate language and tone to convey messages, instructions, and ideas.   |
|   | 2. Write clear, concise, and well-structured documents that are suitable in a workplace context  |
| <b>Content Outline</b>                          | 2.1 Developing Spoken Skills<br><br>Simulated role play to be carried out in pairs or small groups in situations such as<br><br>Job Interviews in different contexts, Congratulating colleagues, Farewell scenes, Openings of Meetings and giving the Vote of thanks |
|   | 2.2 Written Communication:<br><br>Notice and Agenda, Minutes, Application letters and one page resumes, Brief messages in office situations (Examples-Short notes/email to the Department Head for leave, reaching late or leaving                                   |
|   | early, cancellation of meeting)  |

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)**

External 50 marks

- iii. Unseen passage for Comprehension on related matter about professional situations- 10 marks
- iv. Short answers based on chosen texts (5\*2 ) 10 marks
- v. Notice, Agenda, and Minutes 10 marks
- vi. Application letter with Resume sent through email 10 marks
- vii. Short messages on different office situations 10 marks

## Bibliography:

1. Dixson, Robert J. *Everyday Dialogues in English: A Revised Edition*. PHI Learning Private Limited, 2013.
2. Gangal, J. K. *A Practical Course in Effective English Speaking Skills*. PHI Learning Private Limited, 2014.
3. Hariharan, Githa. "Retrospective." *Imaging the Other*, edited by G. J. V. Prasad, Katha, 1999. Narayan, R. K. *Malgudi Days*. Indian Thought Publications, 2009.
4. Rai, Urmila, and S. M. Rai. *Business Communication*. Himalaya Publishing House, 2014.
5. Taylor, Shirley. *Model Business Letters, E-mails and Other Business Documents*. 6th ed., Pearson Education, 2004.

|                            |   |
|----------------------------|---|
| <b>Course Title</b>        | ભારત, ભારતીયતા, ભારતીય સંસ્કૃતિ   |
| <b>Course Credits</b>      | 2   |
| <b>Course Outcomes</b>     | <p><b>After going through the course, learners will be able to</b></p> <p>*વિદ્યાર્થીની બહેનો ભારતની યુવાન પેઢી ભારત શું છે, ભારતીય એટલે કોણ, ભારતીયતા એટલે શું એ જાણે</p> <p>*ભારતીય સંવેદના, સંસ્કારો, માન્યતાઓ, પરંપરા, આદર્શો, મૂલ્યોનો પરિચય કેળવશે</p> <p>*ભારતીય સંસ્કૃતિ અને તેની વિશેષતા, ધર્મો, સાધના પ્રણાલી જાણશે</p> <p>*ભારતનું રાષ્ટ્ર બંધારણ, રાષ્ટ્ર ગીત વિશેષતા જાણશે</p> <p>*ભારતીય જીવન દ્રષ્ટિ, ભૌતિક, પ્રાકૃતિક, વૈચારિક અને સાંસ્કૃતિક સમૃદ્ધિ જાણી ગૌરવ અનુભવશે</p> |
| <b>Module 1 (Credit 1)</b> | ભારત, ભારતીયતા  |
| <b>Learning Outcomes</b>   | <p><b>After learning the module, learners will be able to</b></p> <p>ભારત શું છે? વિશે જાણશે</p> <p>ભારતીય આદર્શ, સંવેદના, સમસ્યા, આચાર, જીવનમૂલ્યો, જીવનદ્રષ્ટિ, પરંપરાઓ, ચેતના જાણવી</p> <p>● ભારતીય એટલે કોણ? વિશે જાણશે</p>   |
|                            | ભારતીયતા એટલે શું? વિશે જાણશે   |

|                            |   |
|----------------------------|---|
| <b>Content Outline</b>     | <ul style="list-style-type: none"> <li>● ભારતીય આદર્શ</li> <li>● સંવેદના, સમસ્યા</li> <li>● આચાર, જીવનમૂલ્યો, જીવનદ્રષ્ટિ,</li> </ul> |
| <b>Module 2 (Credit 1)</b> | <b>એકમ -2 ભારતીય સંસ્કૃતિ</b>   |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>  |
|                            | ભારતીય સંસ્કારો સમજશે<br>ભારતીય સંસ્કૃતિ જાણશે<br>ભારતીય પ્રજાનું રાષ્ટ્રીય ચારિત્ર્ય વિશે માહિતગાર થશે.                              |
| <b>Content Outline</b>     | ધર્મો, સાધના,<br>પુણ્યભૂમિ ભારત, સમૃદ્ધ ભારત,<br>રાષ્ટ્ર બંધારણ, રાષ્ટ્ર ગીત, માનવજાતને ભારતીય પ્રજાનું યોગદાન<br>જાણશે               |

**Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)**

મૂલ્યાંકન પદ્ધતિ -

- ★ 50 ગુણની (માસ્કર્સની) આંતરિક પરીક્ષા લેવાશે.
- ★ આંતરિક પરીક્ષામાં પાસ થવું અનિવાર્ય છે.

**Activities :**

ભારતીયતા એટલે વિવિધતા

ખાનપાન

પહેરવેશ

જીવનશૈલી પર પ્રોજેક્ટ વર્ક

ભારતની ઓળખ

તાજમહેલ

મીનાસી મંદિર

કાશ્મીર પર અહેવાલ લખો

વિવિધ નૃત્યો પર ડોક્યુમેન્ટરી ગુજો અને લખો

વિવિધ ચિત્ર શૈલી વિશે જાણો અને અહેવાલ લખો

ભારત સ્વતંત્રતા યોગદાન આપનાર સૌ પુરુષ સ્ત્રીને જાણો

તહેવાર, ઉત્સવ, ગુઢી ગુઢી પ્રજા, વિવિધ બોલી, ભાષા વિશે સ્વપ્રક મુલાકાત લે

સંદર્ભ ગ્રંથો :

1. "ભારત: એક સંસ્કૃતિ, એક રાષ્ટ્ર" - ચંદ્રપ્રકાશ દિવેદી
2. "ભારતીય સંસ્કૃતિ" - રજનીકાંત શાસ્ત્રી
3. "સંસ્કૃતિના ઇતિહાસ" - રજનીકાંત શાસ્ત્રી
4. "ભારતીય સંસ્કૃતિનો મહિમા" - કનૈયાલાલ મુનશી
5. "ભારતીય સંસ્કૃતિ અને પરંપરાઓ" - જશવંત મહેતા
6. "ભારતનો સાંસ્કૃતિક વારસો" - શ્રીમન્નારાયણ
7. "હિન્દુ સંસ્કૃતિ અને ભારતીયતા" - પંડિત ઓમકારનાથ શર્મા (ગુજરાતી અનુવાદ)
8. "વેદ અને ઉપનિષદ: ભારતીય જીવનના આધારસ્તંભ" - સ્વામી સચ્ચિદાનંદ
9. "ભગવદ ગીતા: જીવનનો માર્ગ" - મોરારિબાપુ

|  |  |
|--|--|
| <b>Course Title</b>                              | छन्दपरिचयः   |
| <b>Course Credits</b>                            | 2  |
| <b>Course Outcomes</b>                           | <p>After going through the course, learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Define fundamental principles of 'Chhandas'.</li> <li>2. Explain structure and its significance in Sanskrit poetry and Vedic literature.</li> <li>3. Recognize different meters in Ramayana, Mahabharata, dramas and other 'Mahakavyas'.</li> <li>4. Compare the traditional use of 'Chhandas' in ancient Sanskrit literature.</li> <li>5. Develop their pronunciation, rhythmic and linguistic skills in Sanskrit verses.</li> </ol> |
| <b>Module 1 (Credit 1) छन्दशास्त्रस्य परिचयः</b> |  |
| <b>Learning Outcomes</b>                         | <p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Define different types of 'Chhandas' and their significance in Sanskrit literature.</li> <li>2. Appraise fundamental elements of 'chhandas' and their unique rhythmic and phonetic structures.</li> </ol>  |
| <b>Content Outline</b>                           | <ol style="list-style-type: none"> <li>1. आचार्यपिङ्गलकृत छन्दशास्त्रस्य परिचयः</li> <li>2. छन्दस्य प्रकाराः - वैदिक छन्दाः<br/>लौकिक छन्दाः<br/>वार्णिक छन्दाः<br/>मात्रिक छन्दाः</li> <li>3. गण-परिचयः</li> <li>4. लघुः</li> <li>5. गुरुः</li> <li>6. मात्रा</li> <li>7. चतिः</li> </ol>   |
| <b>Module 2 (Credit 1) लौकिक छन्दाः</b>          |  |
| <b>Learning Outcomes</b>                         | <p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Explain role of Chhandas in enhancing the aesthetic beauty and meaning of verses.</li> <li>2. Compare the variations in syllabic arrangement.</li> <li>3. Develop the style of recitation and composition in Sanskrit.</li> </ol>  |
| <b>Content Outline</b>                           | <ol style="list-style-type: none"> <li>1. अनुष्टुप्</li> <li>2. शालिनी</li> <li>3. शार्दूलविक्रान्ति</li> <li>4. मन्दाक्रान्ता</li> <li>5. शिखरिणी</li> <li>6. वंशस्पृ</li> </ol>  |

|  |   |
|--|---|
|  | <ol style="list-style-type: none"> <li>7. वसन्ततिलका</li> <li>8. हरिणी</li> <li>9. मालिनी</li> <li>10. द्रुतविलम्बित</li> </ol> |
|--|---|

Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)

External Assessment Total: 50 Marks

#### References:

1. गौतम डॉ. कविता, 'छन्द विमर्श', युवराज पब्लिकेशन्स, आगरा-२, २०२०
2. खिस्ते पं श्री नारायणशास्त्री, 'छन्दःकौमुदी', चौखम्भा संस्कृत संस्थान, वाराणसी, २००८
3. तैलङ्ग पं श्री जगन्नाथशास्त्री, 'छन्दोऽलङ्कारमञ्जर', भारतीय विद्या प्रकाशन, वाराणसी, दिल्ली, २०११
4. रानी डॉ. सुमन, 'संस्कृत छन्द और संगीत', भारतीय बुक कॉरपोरेशन, दिल्ली, २०२१
5. पाठक आचार्य चितनारायण, 'श्रीमद्विष्णुलक्ष्मीविरचित छन्दशास्त्रम्', चौखम्भा विद्याभवन, वाराणसी, २०१५
6. शास्त्री डॉ. राकेश, 'श्री भट्टकेश्वर विरचित वृत्तरत्नाकरः', चौखम्भा ऑरियन्टलिया, दिल्ली, २०१९.

|   |   |
|---|---|
| <b>Course Title</b><br>पाठ्यक्रम शीर्षक                 | <b>भारतीय महिलाओं का अनूदित कथा साहित्य</b>   |
| <b>Course Credits</b><br>पाठ्यक्रम श्रेयांक             | <b>2</b>  |
| <b>Course Outcomes</b><br>पाठ्यक्रम परिणाम              | After going through the course, learners will be able to पाठ्यक्रम सीखने के उपरांत छात्राएँ सक्षम होंगी।  |
|   | 1. छात्राएँ भारतीय साहित्य से अवगत होंगी।   |
|   | 2. छात्राएँ भारतीय महिला कथा लेखन से परिचित होंगी।  |
|   | 3. छात्राएँ भारतीय महिलाओं द्वारा लिखित और अनूदित कथा साहित्य की मौलिकता एवं महत्व को जानने में सक्षम होंगी।  |
|   | 4. छात्राएँ स्त्री अस्मिता एवं जीवन मूल्यों से परिचित होंगी।  |
| <b>Module 1 (Credit 1)</b>                              |   |
| <b>Learning Outcomes</b><br>पाठ्यक्रम- अध्ययन के परिणाम | After learning the module, learners will be able to इस इकाई के अध्ययन के उपरांत छात्राएँ सक्षम हुईं :   |
|   | 1. छात्राएँ भारतीय महिला कथा लेखन से परिचित हुईं।   |
|   | 2. छात्राएँ बंगला, पंजाबी और उर्दू में लिखित कथा लेखन एवं लेखिकाओं के योगदान से अवगत हुईं।  |
| <b>Content Outline</b><br>सामग्री की रूपरेखा            | <ul style="list-style-type: none"> <li>● महाश्वेता देवी (बंगला)- द्रौपदी</li> <li>● अमृता प्रीतम (पंजाबी)- शाह की कंजरी</li> <li>● इस्मत चुगताई (उर्दू) – लिहाफ़</li> </ul> |
| <b>Module 2 (Credit 1)</b>                              |   |
| <b>Learning Outcomes</b><br>पाठ्यक्रम- अध्ययन           | After learning the module, learners will be able to इस इकाई के अध्ययन के उपरांत छात्राएँ सक्षम हुईं :   |
|   | 1. छात्राएँ भारतीय महिला कथा लेखन की मौलिकता एवं महत्व से परिचित हुईं।  |

|  |   |
|--|---|
| के परिणाम                                    | 2. छात्राएँ मराठी, तेलुगु और असमिया में लिखित कथा लेखन एवं लेखिकाओं के योगदान से अवगत हुईं।   |
| <b>Content Outline</b><br>सामग्री की रूपरेखा | <ul style="list-style-type: none"> <li>● उर्मिला पवार (मराठी) - कवच</li> <li>● जूपक सुभद्रा (तेलुगु)- रायाक्का की जमीन</li> <li>● इंदिरा गोस्वामी (असमिया)- वंशवेल</li> </ul> |

**Assignments / Activities towards Comprehensive Continuous Evaluation (CCE)**

निर्धारित पाठ्यक्रम के अनुसार : विश्वविद्यालय हिंदी विभाग अथवा महाविद्यालय के परीक्षा विभाग द्वारा सुनिश्चित टेस्ट, क्विज, क्विज, क्विज या मौखिकी/ प्रोजेक्ट/ सेमिनार/ महिला लेखन से संबंधित सिनेमा/नाटक या पुस्तक परीक्षण/ समकालीन महिला रचनाकारों से प्रभावली साक्षात्कार / महिला कहानीकारों की कहानियों का अनुवाद/ समकालीन महिला कहानीकारों पर एकाग्र आलेख/ महिला रचनाकारों की कहानियों पर तुलनात्मक अध्ययन/पुस्तक समीक्षा आदि के संबंध में अध्यापक के निर्देशानुसार सत्रानुरूप कार्य।

| अ.क्र. | विवरण  | अंक |
|--------|--|-----|
| 1      | अंतर्गत मूल्यांकन- विभागीय स्तर पर प्रश्नपत्र के अनुसार परीक्षा अथवा प्रत्यक्ष कार्य आधारित गतिविधि ली जाएगी.  | 15  |
| 2      | मौखिकी/ प्रोजेक्ट/ सेमिनार/ महिला लेखन से संबंधित सिनेमा/नाटक या पुस्तक परीक्षण/ समकालीन भारतीय महिला रचनाकारों से प्रभावली-साक्षात्कार / महिला कहानीकारों की कहानियों का अनुवाद/ समकालीन महिला कहानीकारों पर एकाग्र आलेख/ महिला रचनाकारों की कहानियों पर तुलनात्मक अध्ययन/पुस्तक समीक्षा आदि के संबंध में अध्यापक के निर्देशानुसार सत्रानुरूप कार्य।<br>(उक्त गतिविधियों में से तीन गतिविधियाँ आवश्यक हैं।) | 35  |
|        | कुल  | 50  |
| अंक    |  |     |

संदर्भ ग्रंथ –

- 1) भारतीय साहित्य, डॉ. नगेन्द्र, प्रभात प्रकाशन प्रा. लि., 4/19, असफ अली रोड, नई दिल्ली-110002
- 2) भारतीय साहित्य की भूमिका, रामविलास शर्मा, राजकमल प्रकाशन, दरियागंज, नई दिल्ली-110002
- 3) लोकधर्मी साहित्य की दूसरी धारा, चौथीराम यादव, अनामिका पब्लिशर्स एंड डिस्ट्रीब्यूटर्स, प्रा. लि., नई दिल्ली-110002
- 4) भारतीय साहित्य, संकलन- डॉ. आर. आई शांति एवं डॉ. प्रकाश ए., वाणी प्रकाशन, दरियागंज, नई दिल्ली—110002
- 5) तुलनात्मक साहित्य: भारतीय परिप्रेक्ष्य, इन्द्रनाथ चौधरी, वाणी प्रकाशन, दरियागंज, नई दिल्ली—110002
- 6) भारतीय कहानी, संपा.- जगदीश चतुर्वेदी, केन्द्रीय हिंदी निदेशालय, दिल्ली.
- 7) भारतीय साहित्य की पहचान, डॉ. सियाराम तिवारी, वाणी प्रकाशन, दरियागंज, नई दिल्ली—110002
- 8) भारतीय साहित्य अध्ययन की नई दिशाएँ, डॉ. प्रदीप श्रीधर, तक्षशिला प्रकाशन, हिंदी पार्क, , दरियागंज, नई दिल्ली—110002
- 9) भारतीय साहित्य, प्रतिभा मुदलियार, अमन प्रकाशन, कानपुर
- 10) समकालीन भारतीय साहित्य, त्रैमासिक पत्रिक, साहित्य अकादेमी, नई दिल्ली.



|  |   |
|--|---|
| <b>Course Title</b>                        | शब्दांकन  |
| <b>Course Credits</b>                      | 2 श्रेयांक  |
| <b>Course Outcomes</b>                     | <p>After going through the course, learners will be able to</p> <ol style="list-style-type: none"> <li>1. विद्यार्थ्यांना मुलाखतीच्या तंत्राचा परिचय होईल</li> <li>2. मुलाखतीच्या पूर्वतयारीची विद्यार्थ्यांना माहिती होईल</li> <li>3. विद्यार्थ्यांना शब्दांकनाची संकल्पना स्पष्ट होईल</li> <li>4. शब्दांकन करण्यासाठी आवश्यक कौशल्ये विद्यार्थ्यांना अवगत होतील</li> <li>5. विद्यार्थ्यांना प्रत्यक्ष शब्दांकन करता येईल.</li> <li>6. शोध ग्रामीण आरोग्याचा – डॉ. हिंमतराव बावस्कर</li> <li>7. शब्दांकन – सुमेध वडावाला या पुस्तकातील प्रमुख आशयसूत्रांचा विद्यार्थ्यांना परिचय होईल.</li> <li>8. या पुस्तकातील शब्दांकनाचे स्वरूप समजून घेतील</li> </ol> |
| <b>Module 1(Credit 1)- मुलाखतीचे तंत्र</b> |   |
| <b>Learning Outcomes</b>                   | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> <li>1. विद्यार्थ्यांना मुलाखतीच्या तंत्राचा परिचय होईल</li> <li>2. मुलाखतीच्या पूर्वतयारीची विद्यार्थ्यांना माहिती होईल</li> <li>3. विद्यार्थ्यांना शब्दांकनाची संकल्पना स्पष्ट होईल</li> <li>4. शब्दांकन करण्यासाठी आवश्यक कौशल्यांचे विद्यार्थ्यांना ज्ञान होईल.</li> <li>5. विद्यार्थ्यांना प्रत्यक्ष शब्दांकन करता येईल.</li> </ol>   |

|   |   |
|---|---|
| <b>Content Outline</b>                        | मुलाखतीची पूर्वतयारी आणि तंत्र परिचय<br>शब्दांकन संकल्पना स्वरूप आणि परिचय<br>मराठीतील सुप्रसिद्ध शब्दांकनांचा आढावा  |
| <b>Module 2 (Credit 1)- शब्दांकनाचे उपयोग</b> |   |
| <b>Learning Outcomes</b>                      | After learning the module, learners will be able to<br>1. शोध ग्रामीण आरोग्याचा – डॉ. हिंमतराव बावस्कर शब्दांकन – सुमेध वडावाला या पुस्तकातील प्रमुख आशयसूत्रांचा विद्यार्थ्यांना परिचय होईल.<br>2. पुस्तकातील शब्दांकनाच्या स्वरूपाचे विद्यार्थ्यांना आकलन होईल.<br>3. पुस्तकातील भाषाशैलीचे विशेष विद्यार्थी समजून घेतील.<br>4. शब्दांकन कर्त्याचे व्यक्तिमत्व आणि त्याचा पुस्तकावरील प्रभाव विद्यार्थी समजून घेतील |
| <b>Content Outline</b>                        | शोध ग्रामीण आरोग्याचा – डॉ. हिंमतराव बावस्कर शब्दांकन – सुमेध वडावाला या पुस्तकातील प्रमुख आशयसूत्रांचा परिचय<br>या पुस्तकातील शब्दांकनाचे स्वरूप आणि भाषाशैली<br>शब्दांकन कर्त्याचे अभिरुची आणि वाङ्मयीन संस्कार   |

1. मुलाखतीचे तंत्र या विषयावर टिपण लेखन आणि सादरीकरण.
2. शोध ग्रामीण आरोग्याचा या पुस्तकाचे अभिवाचन

#### संदर्भ सूची

- 1) शब्दांकन, शब्दरुची, ऑगस्ट 2018
- 2) व्यावहारिक मराठी , ल. रा. नसिराबादकर, भाषाविकास संशोधन संस्था, कोल्हापूर, 2023
- 3) शोध ग्रामीण आरोग्याचा – डॉ. हिंमतराव बावस्कर शब्दांकन – सुमेध वडावाला, राजहंस प्रकाशन, पुणे
- 4) शब्दांकित, नितीन दत्तात्रय आरेकर, डिंपल पब्लिकेशन्स, मुंबई 2022
- 5) मास्तरांची सावली, शब्दांकन नेहा सावंत डिंपल पब्लिकेशन्स, मुंबई 2014
- 6) आम्हीही इतिहास घडवला, उर्मिला पवार, मीनाक्षी मून, सुगावा प्रकाशन, 1981
- 7) पोलादी बाया, दीपा पवार, हरिती प्रकाशन, पुणे

|   |   |
|---|---|
| <b>Course Title</b>                             | <b>Sociology of Disaster Management</b>   |
| <b>Course Credits</b>                           | <b>2</b>  |
|   | After going through the course , learner will be able to  |
| <b>Course Outcomes</b>                          | 1.Understand the concept of disaster.   |
|   | 2. Identify and describe the types and causes of disaster management.   |
|   | 3. Examine the concept of disaster management.  |
|   | 4. Evaluate the role of Govt. and NGO's in disaster management from a sociological perspective.   |
| <b>Module 1 (Credit 1) Concept of Disaster</b>  |   |
|   | After Learning the module learner will be able to   |
| <b>Learning Outcomes</b>                        | 1. Explain the concept of disaster management from a sociological perspective.  |
|   | 2. Identify and describe the types and causes of disaster management.   |
| <b>Content Outline</b>                          | <ol style="list-style-type: none"> <li>1. Definition and nature of disaster</li> <li>2. Types and causes <ol style="list-style-type: none"> <li>1. Natural disaster: Famines, floods, earthquake</li> <li>2. Man-made disaster: war, industrial and communal</li> </ol> </li> </ol> |
| <b>Module 2 (Credit 1): Disaster Management</b> |   |
|   | After Learning the module learner will be able to   |
| <b>Learning Outcomes</b>                        | 1.Explain the role of government in disaster management and policy-making.  |
|   | 2. Analyze the role of community-based organizations in disaster management.  |
| <b>Content Outline</b>                          | <ol style="list-style-type: none"> <li>1. Concept of Disaster management</li> <li>2. Role of government in disaster management</li> <li>3. Role of NGOs in disaster management</li> </ol>   |

**External Assessment:** There will be **No Internal** evaluation for this course

**Reference:**

1. Alexander, D. E. (2015): Disaster and Human Resilience. Routledge.

2. Bolin, R. C. (2007): Race, Class, Ethnicity, and Disaster Vulnerability. In H. Rodríguez, E. L. Quarantelli, & R. R. Dynes (Eds.), Handbook of Disaster Research (pp. 113-129). Springer.
3. Cutter, S. L. (2014): The Social Roots of Risk: Producing Disasters, Promoting Resilience. Stanford University Press, California.
4. Enarson, E. (2012): Women and Girls Last? Averting the Second Disaster. In E. Enarson & P. G. Dhar Chakrabarti (Eds.), Women, Gender and Disaster: Global Issues and Initiatives (pp. 1-14). Sage Publications. New Delhi.
5. Tierney, K. J. (2014): The Social Roots of Risk: Producing Disasters, Promoting Resilience. Stanford University Press.

### हिंदी संदर्भ:-

- डॉ. गर्ग एच. एस. (२०१६) : आपदा प्रबन्धन, एस. बी. पी. डी. पब्लिकेशन, आग्रा.
- डॉ. जोशी, रतन. पर्यावरण, आपदा प्रबन्धन एवं जलवायु परिवर्तन एवं सांख्यिकीय तकनीकें, साहित्य भवन पब्लिकेशन, आग्रा.
- डॉ. शुक्ल, चन्द्र प्रकाश. आपदा प्रबन्धन, (२०१९) : आविष्कार पब्लिशर्स सर्सजयपूर.
- मिश्रा, शिवगोपाल. (२०१८) : आपदा प्रबन्धन, प्रभात पब्लिकेशन, न्यू दिल्ली.
- पठाण, इरफान. (२०१७) : आपदा प्रबंधन, एस.जी. पब्लिकेशन, जलंधार.

### मराठी संदर्भ;

- डॉ. भोळे, रमेशडॉ. व्ही. पाटील, प्रतिभा. डॉ. जाधव, सहदेव एस. (२०२०) : आपत्ती व्यवस्थापन, अथर्व पब्लिकेशन्स,
- डॉ. भंगाळे, शैलजा. (२०२०) : आपत्ती व्यवस्थापन, प्रशांत पब्लिकेशन्स, जळगांव.
- चाकणे संजय व पठारे संभाजी ( 2007) : आपत्ती निवारण, डायमंड पब्लिकेशन्स, पुणे.
- चाकणे संजय व पठारे संभाजी ( 2012) : आपत्ती व्यवस्थापनाचे आव्हाने, डायमंड पब्लिकेशन्स, पुणे.
- गोडबोले व्ही .जे व मराठे प्र. प्र ( 2010), आपत्ती व्यवस्थापन, संकल्पना आणि कृती, डायमंड पब्लिकेशन्स, पुणे.
- खराटे संभाजी (2012) आपत्ती व्यवस्थापन, प्रतिमा प्रकाशन ,पुणे.
- मराठे पी.पी (2007) कृतीबद्ध आपत्ती व्यवस्थापन, डायमंड पब्लिकेशन्स, पुणे.

**Note: Any other text/Article suggested by the subject teacher**

|  |   |
|--|---|
| <b>Course Title</b>  | <b>Media Psychology</b>   |
| <b>Course Credits</b>  | 2 Credits   |
| <b>Course Outcomes</b>   | <p>After completing this course learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Explain psychological theories related to media effects and consumption.</li> <li>2. Analyze the cognitive, emotional, and behavioral impacts of media.</li> </ol>  |
| <b>Module 1 (Credit 1) Title :- Introduction to Media Psychology</b>         |   |
| <b>Learning Outcomes</b>   | <p>After studying the module learners will be able to:</p> <ol style="list-style-type: none"> <li>3. Define media psychology and understand its scope.</li> <li>4. Explain Theories of Media</li> </ol>   |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>1. Definition, Scope and History of Media Psychology</li> <li>2. Media and Human Perception</li> <li>3. Theories of Media Effects</li> <li>4. The role of media in everyday life</li> </ol>  |
| <b>Module 2 (Credit 1) Title :- Cognitive and Emotional Effects of Media</b> |   |
| <b>Learning Outcomes</b>   | <p>After studying the module learners will be able to:</p> <p>Explain Cognitive and Emotional Effects of Media and the impact of entertainment media on behavior.</p> <p>Evaluate ethical concerns about psychological effects and explore the future implications of AI, VR, and the Metaverse in media psychology.</p>  |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>1. Cognitive and Emotional Effects of Media <ol style="list-style-type: none"> <li>1. The influence of entertainment media on behavior and attitudes</li> </ol> </li> <li>2. Ethical considerations in media production and consumption</li> <li>3. The future of media psychology: AI, VR, and the Metaverse</li> </ol> |

## Assignments:

### Choose any two -

- i. Discussion on the Theories of Media Effects.
- ii. Reels on Impact of entertainment media.
- iii. Interview 2 people to learn about any Cognitive and Emotional Effects of Media on them.
- iv. Group activity - Campaign on Ethical Consideration in Media Production.

## References:

Haidt, J. (2024). *The anxious generation: How social media creates a mental health crisis*. Penguin Press.

Howard, P. N. (2023). *Lies, damned lies, and social media: Misinformation and democracy*. Oxford University Press.

Kim, Y. (2021). *Digital well-being: Managing screen time and mental health in the digital age*. Routledge.

Nabi, R. L., & Oliver, M. B. (Eds.). (2020). *The SAGE handbook of media processes and effects*. SAGE Publications.

Rich, G. J. (2024). *Handbook of media psychology: The science and the practice*. Springer.

Sharot, T. (2025). *Doom scrolling and mental health: The psychological effects of online negativity*. The Times Press.

Vorderer, P., & Klimmt, C. (2023). *The psychology of entertainment media: The impact of digital storytelling on emotions and behavior*. Taylor & Francis.

Ward, A. F. (2022). *Digital distraction and the cognitive impact of media multitasking*. Oxford University Press.

Weimann, G. (2023). *Misinformation and media: The role of fake news in shaping public opinion*. Cambridge University Press.

Nabi, R. L., & Oliver, M. B. (Eds.). (2020). *The SAGE handbook of media processes and effects*. SAGE Publications.

Rich, G. J. (2024). *Handbook of media psychology: Science and the practice*. Springer.

Sharot, T. (2025). *Doom scrolling and mental health: The psychological effects of online negativity*. The Times Press.

Vorderer, P., & Klimmt, C. (2023). *The psychology of entertainment media: The impact of digital storytelling on emotions and behavior*. Taylor & Francis.

Ward, A. F. (2022). *Digital distraction and the cognitive impact of media multitasking*. Oxford University Press.

Weimann, G. (2023). *Misinformation and media: The role of fake news in shaping public opinion*. Cambridge University Press.

Williams, K. D. (2021). *Social exclusion in digital spaces: The psychological impact of online interactions*. American Psychological Association.

Wilson, R. T. (2023). *Virtual reality, AI, and the metaverse: The future of media psychology*. MIT Press.

Williams, K. D. (2021). *Social exclusion in digital spaces: The psychological impact of online interactions*. American Psychological Association.

Wilson, R. T. (2023). *Virtual reality, AI, and the metaverse: The future of media psychology*. MIT Press.

धरुरकर, च. (2024). *अभिव्यक्तिस्वातंत्र्य – प्रसारमाध्यमे आणि कायदा*. अमेझॉन इंडिया

पवार, वि. (2023). *विदर्भ आणि मीडिया*. प्लिपकार्ट.



|  |  |
|--|--|
| <b>Course Title</b>                        | <b>Women and Political Participation in India</b>  |
| <b>Course Credits</b>                      | <b>2</b>   |
| <b>Course Outcomes</b>                     | After going through the course, learners will be able:   |
|  | 1. To understand key concepts, debates related with women political participation in India.  |
|  | 2. To address the challenges faced by women in the political process in India.   |
|  | 3. To evaluate the role of women at decision making positions in India.  |
| <b>Module 1 -</b>                          |  |
| <b>Learning Outcomes</b>                   | After learning the module, learners will be able:  |
|  | 1.Understand the historical and contemporary context of women's political participation in India.  |
|  | 2.Apply theoretical concepts to understand real world scenarios related to women's political participation.  |
|  | 3.Examine role of women in electoral process in India.   |
| <b>Content Outline</b>                     | <ol style="list-style-type: none"> <li>1. Political participation – meaning, levels, factors affecting women political participation, challenges, opportunities, women's political rights in India, Role of institutions in promoting women political participation</li> <li>2. Women political participation in Early India – factors, impact of women's organization and movement</li> <li>3. Women and elections - women and voting behavior, studies, comparative state studies, women and political parties – women wings, women in party bodies, women and representation – political families and women representations, independent contestations</li> </ol> |
| <b>Module 2 - Women in Decision making</b> |  |
| <b>Learning Outcomes</b>                   | After learning the module learners will be able:   |

|  |
|--|
| 1.Understand the background factors supporting women to be in leadership postitions. |
|--|

|                        |   |
|------------------------|---|
|                        | 2.Explore strategies to promote women’s participation in decision making positions.   |
|                        | 3.Analyze challenges and opportunities faced by women in governance.  |
| <b>Content Outline</b> | <p>1. Women at Local Self Governments, Impact of women reservation, challenges and opportunities, from presence to essence</p> <p>2. Women at State and union legislatures, Women in Parliamentary bodies committees, Women ministers, Women Presidents, Prime ministers, women reservation debate, women leadership</p> <p>3. Women in bureaucracy / administration – social profile, challenges and opportunities</p> |
|                        |   |

#### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

1. Interviews of women political leaders
2. Interviews with women administrators
3. Article/book reviews
4. Election studies – study of women voters
5. Film screening discussions

#### **Reference:**

1. Bedi, T. (2016). The Dashing Ladies of Shiv Sena: Political Matronage in Urbanizing India. State University of New York Press.
2. Buch, N. (2013). From oppression to assertion: Women and Panchayats in India. Routledge.
3. Ghosh, R., & McLean, G. N. (2018). Indian Women in leadership. Springer.
4. Kalaramadam, S. (2016). Gender, Governance and empowerment in India. Routledge.
5. Kumar, P. (2015). Unveiling women’s leadership: Identity and meaning of leadership in India.  
  
Springer.
6. Kumar, S. (2021). Women voters in Indian elections: Changing Trends and Emerging Patterns.  
  
Routledge.

7. Rai, S. M., & Spary, C. (2019). *Performing representation: Women Members in the Indian Parliament*. Oxford University Press, USA.

8. Rajput, P., & Thakkar, U. (2023). Women in state politics in India: Missing in the Corridors of Power. Taylor & Francis.
9. Shukla. (2007). Women Chief Ministers in contemporary India. APH Publishing.
10. Sinhā, N. (2000). Women in Indian politics: Empowerment of Women Through Political Participation. Gyan Books.
11. Tadros, M. (2014). Women in politics: Gender, Power and Development. Zed Books Ltd.
12. Upadhyay, L. (2023). women in indian politics. Abhishek Publications.

|   |  |
|---|--|
| <b>Course Title</b>   | <b>Subaltern Movements in India</b>  |
| <b>Course Credit</b>  | <b>2</b>   |
| <b>Course Outcomes</b>  | After going through the course, learners will be able to   |
|   | 1. explore the concept of subalternity and its application in understanding history and society  |
|   | 2. discuss the Concept and Theories of Subalternity  |
|   | 3. examine the origin, development, and impact of subaltern movements in India.  |
|   | 4. analyze the socio-Political Impact of Subaltern Movements   |
| <b>Module 1 (Credit 1): Introduction to Subaltern Studies</b> |  |
| <b>Learning Outcomes</b>                                      | After learning the module, learners will be able to  |
|   | 1. discuss the Concept of Subaltern  |
|   | 2. examine the Emergence of Subaltern Studies  |
|   | 3. analyze Ranajit Guha's Contributions  |
|   | 4. assess the impact of Subaltern Movements on Society   |
| <b>Content Outline</b>  | 1. Definition of Subaltern: Antonio Gramsci<br>2. Subaltern Studies in India: Ranajit Guha, Partha Chaterjee, Gayatri Spivak<br>3. Impact of Subaltern movements on society. |
| <b>Module 2 (Credit 1): Subaltern Movements in India</b>      |  |
| <b>Learning Outcomes</b>                                      | After learning the module, learners will be able to  |

|                        |  |
|------------------------|--|
|                        |  |
|                        | 1. identify key Movements and Their Characteristics  |
|                        | 2. examine the causes and features of significant Peasant Movements  |
|                        | 3. evaluate the impact of caste-based resistance movements   |
| <b>Content Outline</b> | 1. Tribal Uprisings: Halba Rebellion, Bhil Movement<br>2. Peasant and Labour Movements: Indigo Revolt, Bombay Textile Worker's Movement, 1982<br>3. Caste-Based Resistance: Satyashodhak Samaj Movement, Self-Respect Movement |

**Assignments/ Activities towards Comprehensive Continuous Evaluation (CCE):**

| <b>Activity</b>   | <b>Marks</b> |
|---|--------------|
| Research projects / Presentations on Subaltern Studies – Antonio Gramsci  | 10           |
| Case studies & presentations on Indian Subaltern Historians   | 10           |
| Interactive group discussion on causes and significance of tribal, peasant, and workers' movements                    | 10           |
| Assignments on caste-based resistance movements   | 10           |
| Role play and video shooting on Ajmer Singh / Govind Guru / Vallabhbhai Patel / N. M. Joshi / Mahatma Phule / Periyar | 10           |

**References:**

1. Ambedkar B.R., 1936. Annihilation of Caste.
2. Charlesworth, Neil, 1985. Peasants and Imperial Rule: Agricultural and Agrarian Society within Bombay Presidency 1850-1935, Cambridge.
3. Desai A.R. (ed), 1979. Peasant Struggle in India, New Delhi, Oxford University Press
4. Dhanagare D.N., 1983. Peasant movement in India – 1920-1950, Delhi, Oxford University Press.
5. Gail Omvedt, Dalits and the Democratic Revolution.

6. Grover Verinder (ed.), 1998. Bhimrao Raoji Ambedkar, New Delhi, Deep & Deep Publications.
7. Guha Ranajit, 1999. Elementary Aspects of Peasant Insurgency in Colonial India, Duke University Press
8. Jogadand P.G., 1991. Dalit movement in Maharashtra, Delhi, Kanak Publication.
9. K. Balagopal, Probing in the Political Economy of Agrarian Classes and Conflicts.
10. Keer Dhananjay, 1954. Dr. Ambedkar : Life and Mission, Mumbai, Popular Prakashan.
11. Omvedt, Gail, 1976. Cultural Revolt in Colonial Society The Non-Brahmin Movement in Western India, 1873-1930, Bombay, Scientific Socialist Education Trust.
12. Oomen T.K. Nation, 2004. Civil society and social movements: Essay in political sociology – New Delhi, Sega Publications.
13. Scott James C., Weapons of the Weak: Everyday Forms of Peasant Resistance.
14. Shah Ghanshyam, 1983. Social movement in Two Indian States, New Delhi, Ajanta.
15. Spivak Gayatri Chakravorty, Can the Subaltern Speak?
16. Sunthankar, B. R., 1988. Nineteenth Century History of Maharashtra 1818-1857, Bombay, Popular Book.
17. Sunthankar, B. R., 1993. Maharashtra 1858-1920, Bombay, Popular Book Depot.



|   |  |
|---|--|
| <b>Course Title</b>   | <b>Travel Formalities</b>  |
| <b>Course Credits</b>   | <b>2</b>   |
| <b>Course Outcomes</b>  | After going through the course, learners will be able to   |
|   | 1. Know the importance of travel formalities in international and domestic travel.   |
|   | 2. identify and process essential travel documents such as passports, visas, and permits.  |
|   | 3. comprehend various visa types, their application procedures, and immigration formalities.   |
|   | 4. analyze foreign exchange regulations, customs policies, and airline regulations.  |
|   | 5. identify the significance of travel insurance and its coverage.   |
| <b>Module 1 (Credit 1) : Documents for Travel Formalities</b> |  |
| <b>Learning Outcomes</b>                                      | After learning the module, learners will be able to  |
|   | 1. acknowledge the role and significance of travel formalities.  |
|   | 2. identify and describe various travel documents required for international travel.   |
|   | 3. differentiate between types of visas and their application processes.   |
|   | 4. explain immigration formalities and their importance.   |
| <b>Content Outline</b>  | 1. Concept and Importance of Travel Formalities<br>2. Documents: Passport, Visa, Permits and Travel Insurance<br>3. Visa Types and Procedures: Tourist Visa, Business Visa, Student Visa, Transit Visa, e- Visa, Visa on Arrival |

|  |   |
|--|---|
|  | 4. Immigration formalities  |
| <b>Module 2 (Credit 1) : Procedures and Regulations for Travel Formalities</b> |   |
| <b>Learning Outcomes</b>   | After learning the module, learners will be able to   |
|  | 1. discuss the regulations governing foreign exchange and currency transactions.  |
|  | 5. identify customs regulations, duty-free allowances, and prohibited/restricted items.   |
|  | 3. recognize the significance of travel insurance, its types, and coverage.   |
|  | 4. know airline regulations related to baggage, security checks, and boarding procedures.   |
| <b>Content Outline</b>   | 1. Foreign Exchange Regulations: Currency Exchange, Forex Cards, and Traveler's Cheques<br>2. Customs Regulations: Prohibited and Restricted Items, Duty-Free Allowances<br>3. Travel Insurance: Importance, Types, and Coverage<br>4. Airline Regulations: Baggage Rules, Security Checks, and Boarding Procedures |

**Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

| <b>Activity</b>   | <b>Marks</b> |
|---|--------------|
| Assignments on Concept and Importance of Travel Formalities             | 10           |
| Case studies & presentations on procedures for preparation of documents | 10           |
| Projects/ Presentations on various Travel Documents                     | 10           |

|   |    |
|---|----|
| Group discussion and Presentations on Procedures and Regulations for Travel Formalities | 10 |
| Field visit to nearby Travel Company and Report writing                                 | 10 |

## References:

1. Boniface, Brian & Cooper, Chris., 2009. *Worldwide Destinations: The Geography of Travel and Tourism*, Routledge.
2. Cooper, Chris., 2020. *Essentials of Tourism*, Pearson.
3. Fletcher, John., 2017. *Tourism: Principles and Practice*, Pearson.
4. Goeldner, Charles R., & Ritchie, J.R. Brent., 2012. *Tourism: Principles, Practices, Philosophies*, Wiley.
5. Hall, C. Michael & Page, Stephen J., 2014. *The Geography of Tourism and Recreation: Environment, Place and Space*, Routledge.
6. Holloway, J. Christopher., 2016. *The Business of Tourism*, Pearson.
7. Laws, Eric., 1995. *Tourist Destination Management: Issues, Analysis, and Policies*, Routledge.
8. Middleton, Victor T. C., 2009. *Marketing in Travel and Tourism*, Butterworth- Heinemann.
9. Mill, Robert Christie & Morrison, Alastair M., 2012. *The Tourism System*, Kendall Hunt Publishing.
10. Ministry of Tourism, Government of India Reports – [www.tourism.gov.in](http://www.tourism.gov.in)
11. Page, Stephen J., 2019. *Tourism Management*, Routledge.
12. Swarbrooke, John., 2002. *Sustainable Tourism Management*, CABI Publishing.
13. Walker, John R., 2019. *Introduction to Hospitality*, Pearson.
14. Weaver, David & Lawton, Laura, 2010. *Sustainable Tourism: Theory and Practice*, Routledge.

## मराठी :

1. कुलकर्णी, संजय., २०२१. जागतिक पर्यटन आणि त्याचे नियमन , नागपूर, स्पंदन पब्लिकेशन्स.
2. जाधव, अनिल., २०१७. पर्यटन धोरणे आणि नियोजन, मुंबई, महाराष्ट्र राज्य पाठ्यपुस्तक निर्मिती मंडळ.
3. जोशी, अरुण., २०१५. पर्यटन व्यवस्थापन, पुणे, डायमंड पब्लिकेशन्स.
4. पवार, संदीप., २०२१. पर्यटन आणि हॉटेल व्यवस्थापन, मुंबई, महाराष्ट्र बुक हाउस.
5. पाटील, सुरेश., २०१८. प्रवास व पर्यटन उद्योग, मुंबई, महाराष्ट्र ग्रंथ निर्मिती मंडळ.
6. बागुल, रमेश., २०१९. पर्यटन आणि संस्कृती, पुणे, नवल पब्लिकेशन्स.
7. कदम, विजय., २०१८. पर्यटन आणि पर्यावरण, पुणे, चैतन्य पब्लिकेशन.
8. लोखंडे, सुनील., २०२०. भारतातील पर्यटन विकास, औरंगाबाद, पराग प्रकाशन.
9. शिंदे, प्रतीक., २०२२. साहसी पर्यटन आणि प्रवास योजना, नाशिक, सप्तसिंधू पब्लिकेशन्स.
10. महाजन, मंगेश., २०१९. पर्यटन व्यवसायाचे नियोजन आणि धोरणे , औरंगाबाद, विद्या प्रकाशन.

## Hindi:

1. शर्मा, आर.के., २०१८. पर्यटन उद्योग एवं प्रबंधन, जयपुर, राजस्थान पब्लिकेशन।
2. गुप्ता, सतीश., २०१६. यात्रा और पर्यटन: एक अध्ययन, नई दिल्ली, सेंटर फॉर टूरिज्म स्टडीज़।
3. वर्मा, मुकेश., २०१९. भारत में पर्यटन विकास, लखनऊ, उत्तर प्रदेश हिंदी संस्थान।
4. सिंह, अनिल., २०२०. पर्यटन के आर्थिक और सांस्कृतिक प्रभाव , वाराणसी, काशी हिंदू विश्वविद्यालय
5. मिश्रा, संजय., २०१५. आधुनिक पर्यटन और यात्री सुरक्षा, नई दिल्ली, प्रभात प्रकाशन।

|  |  |
|--|--|
| <b>Course Title</b>  | <b>Geography of Manmade Disaster</b>   |
| <b>Course Credits</b>  | <b>2</b>   |
| <b>Course Outcomes</b>   | After going through the course, learners will be able to   |
|  | 1. To classify causes of manmade disasters.  |
|  | 2. To acquire knowledge of manmade disasters and their effects.  |
|  | 3. To find ways to control and prevent manmade disasters.  |
| <b>Module 1(Credit 1):Introduction – Concept of Manmade Disasters</b>        |  |
| <b>Learning Outcomes</b>   | After learning the module, learners will be able to  |
|  | 1. Analyze the concept, objectives, and significance of understanding manmade disasters.   |
|  | 2. Identify and categorize types of manmade disasters caused by industrialization, urbanization, and socio-political-cultural factors.   |
| <b>Content Outline</b>   | <b>1. Introduction – Concept of Manmade Disasters</b> <ul style="list-style-type: none"> <li>Objectives and significance</li> <li>Types of Manmade Disasters <ul style="list-style-type: none"> <li>Manmade disasters caused due to industrialization</li> <li>Manmade disasters caused due to urbanization</li> <li>Manmade disasters caused due to social, political and cultural factors</li> </ul> </li> </ul> |
| <b>Module 2(Credit 1): Man Made Disasters – causes effects &amp; Control</b> |  |
| <b>Learning Outcomes</b>   | After learning the module, learners will be able   |
|  | 1. Analyze the causes, effects, and control measures for various types of manmade disasters, including fires, accidents, and industrial disasters.   |
|  | 2. Examine case studies like Chernobyl, Fukushima, Bhopal Gas Tragedy, and Iraq War to understand the global impact of industrial and marine disasters.  |

|                        |   |
|------------------------|---|
| <b>Content Outline</b> | <p><b>2. Man Made Disasters – causes effects &amp; Control</b></p> <ul style="list-style-type: none"> <li>• Fire – Building Fire, Coal Fire, Forest Fire, Oil Fire</li> <li>• Accidents- Road, Rail, Air and Sea.</li> <li>• Industrial Disasters – Chernobyl- Russia, Fukushima - Japan, Bhopal Gas Tragedy- India. Iraq War and Marine Disasters</li> </ul> |
|------------------------|---|

**References: -**

3. Anonymous, Planning Commission: Five Year Plans, Govt. of India, New Delhi.
4. Devis Lee, 1994 : Encyclopedia of Manmade Catastrophes, headline U. K.
5. Goudie A. 1990 : The Human Impact on the Natural Environment, Cambridge, Mass, MIT Press.
6. Manorama Year Book 2004: Malayala, Manorama Publications.
7. McKinney, M. L. & Schoch, R. M. 1998 : Environmental Science – Systems and Solutions. Jones & Bartlett Publishers, London.
8. Singh Pramod, 1985: Environment Pollution & Management
9. Bhole, R. V., Patil, P. T., & Patil, S. S. (2020). Aapatti Vyavasthapan. Atharva Publications.
10. Pahulkar, S. D. (Ed.). (2023). Aapatti Vyavasthapan: Navi Awhane va Upayayojana. Eagle Leap Printers and Publishers Pvt. Ltd.
11. Marne, P. P. (2020). Aapatti Vyavasthapan: Sankalpana Ani Kruti. Diamond Publications.
12. Bhangale, S. (2021). Aapatti Vyavasthapan. Prashant Publications.

|                           |  |
|---------------------------|--|
| <b>Course Title</b>       | <b>Economics of Insurance</b>  |
| <b>Course Credits</b>     | <b>2</b>   |
| <b>Course Outcomes</b>    | After going through the course, learners will be able to   |
|                           | 1. Illustrate insurance sector and privatization of this sector.   |
|                           | 1. Describe the rules and regulations of insurance sector.   |
|                           | 1. Illustrate the IRDA as regulatory authority in insurance sector of India.   |
| <b>Module 1(Credit 1)</b> | <b>Introduction to Insurance</b>   |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to  |
|                           | 1.Review the historical perspective of insurance in India.   |
|                           | 2.Appraise the types and principles of insurance.  |
| <b>Content Outline</b>    | 1. Historical background of insurance in India.<br>2. Meaning and need for insurance.<br>3. Types of insurance.<br>4. Principles of insurance.                                 |
| <b>Module 2(Credit 1)</b> | <b>Regulatory framework of insurance Sector</b>  |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to  |
|                           | 1.Illustrate the regulation of insurance through IRDA.   |
|                           | 2. Discuss FDI policy in insurance business of India and consumer's protection in this insurance business.   |
| <b>Content Outline</b>    | 1. Privatization of Insurance Business.<br>2. FDI policy in insurance.<br>2.3. IRDA as regulatory body of insurance sector.<br>2.4 Consumers protection in insurance business. |

### **Assignments/Activities towards Comprehensive Continuous**

**Evaluation (CCE): (No Internal Marks this paper)**

**References:**

1. Bharati Pathak -24 April 2024 - Indian Financial System, Markets , Institutions and Services, 6<sup>th</sup> Edition. Pearson Publications,.
2. Hargovind Dayal -September 2017-The Fundamentals of Insurance: Theories, Principles and Practices by Notion Press Publication,
3. Maureen Burton- 2015An Introduction to Financial Market and Institutions, 2nd Edition, M.E. Sharpe Ink Publication
4. M.Y. Khan, McGraw- July 2019- Indian Financial System, 11<sup>th</sup> Edition, by Hill Publication
5. Peter Zweifel and Roland -2012-Insurance Economics, Eisen Springer Publication



|                         |   |   |                         |
|-------------------------|---|---|-------------------------|
| <b>code</b><br>40444222 | <b>Course Name</b><br><b>Social Media Management (Practical)</b>  |   | <b>Crs</b><br><b>02</b> |
| <b>Course Outcome</b>   | After going through the course, learners will be able to<br>2. Gain in-depth knowledge of social media platforms and their relevance in the fashion industry.<br>3. Plan and execute engaging content strategies for fashion brands.<br>4. Analyze performance metrics and apply tools for campaign optimization.<br>5. Create visual and written content suited for various social media formats |   |                         |
| <b>Sr. No.</b>          | <b>Module Outcomes</b>  | <b>Course Contents</b>  | <b>Cr.</b>              |
| <b>Module 1</b>         | <b>Social Media Platforms &amp; Content Creation</b>  |   | <b>01</b>               |
|                         | <b>Learning Outcomes</b>  | <b>Module Content</b>   |                         |
|                         | After learning the module, learners will be able to<br>6. Identify and compare key social media platforms used in fashion branding.<br>7. Create platform-specific visual and written content for audience engagement.<br>8. Use basic tools for designing, scheduling, and publishing posts.   | 1. Overview of Social Media Platforms – Instagram, Facebook, Pinterest, LinkedIn, TikTok, YouTube<br>2. Audience Behavior & Platform Algorithms<br>3. Brand Voice & Tone – Fashion Context<br>4. Content Types – Static posts, Reels, Stories, Carousels<br>5. Tools for Content Creation – Canva, Adobe Express, InShot<br>6. Post Scheduling Tools – Meta Business Suite, Buffer, Later |                         |
| <b>Module 2</b>         | <b>Campaign Planning, Analytics &amp; Strategy</b>  |   | <b>01</b>               |
|                         | <b>Learning Outcomes</b>  | <b>Module Content</b>   |                         |
|                         | After learning the module, learners will be able to<br>1. Plan and manage a basic digital campaign for a fashion product or event.<br>2. Interpret key metrics from social media insights and analytics.  | viii. Social Media Campaign Structure – Objectives, KPIs, Timeline<br>ix. Campaign Themes – Product Launch, Fashion Week, Festive Collections<br>x. Influencer Marketing & Collaborations   |                         |

|  |  |   |  |
|--|--|---|--|
|  | Optimize content strategy based on performance data. | xi. Analytics Tools – Instagram Insights, Facebook Business Suite<br>xii. Key Metrics – Reach, Engagement, Impressions, Click-Through Rate<br>xiii. Strategy Refinement Based on Insights |  |
| <b>Assignments/ Activities towards CCE</b>   |  |   |  |
| <p><b>Assignments 1</b><br/> <b>Title:</b> <i>Social Media Grid for a Fashion Brand (7-Day Plan)</i><br/> <b>Task:</b> Develop a 7-day content plan (with visuals and captions) for a fashion brand's Instagram page using Canva or equivalent tools. Include rationale for theme, target audience, and post frequency.</p> <p><b>Assignments 2</b><br/> <b>Title:</b> <i>Mini Social Media Campaign Plan</i><br/> <b>Task:</b> Design a 1-week campaign plan for a fashion event or product launch. Include post calendar, influencer collaboration ideas, budget estimate, and sample insights report.<br/> <b>Objective:</b> Evaluate ability to plan and measure a basic fashion-focused campaign using digital tools.</p> |  |   |  |

#### References:

1. **"Social Media Marketing All-in-One For Dummies"**  
*Authors:* Michelle Krasniak, Jan Zimmerman, Deborah Ng, *Publisher:* Wiley  
*Publication Year:* 2021
2. **"The Art of Social Media: Power Tips for Power Users"**  
*Authors:* Guy Kawasaki, Peg Fitzpatrick, *Publisher:* Portfolio  
*Publication Year:* 2014
3. **"Fashion Marketing and Communication in the Digital Age"**  
*Author:* Olga Mitterfellner, *Publisher:* Routledge  
*Publication Year:* 2022
4. **"Content Chemistry: The Illustrated Handbook for Content Marketing"**  
*Author:* Andy Crestodina, *Publisher:* Orbit Media Studios, Inc.  
*Publication Year:* 2020

|                         |   |   |                         |
|-------------------------|---|---|-------------------------|
| <b>code</b><br>40444223 | <b>Course Name</b><br><b>Digital Marketing</b>  |   | <b>Crs</b><br><b>02</b> |
| <b>Course Outcome</b>   | After going through the course, learners will be able to<br>5. Gain in-depth knowledge, core concepts and tools of digital marketing relevant to the fashion industry.<br>6. Plan and execute basic digital marketing campaigns.<br>7. Create ad content and SEO-friendly content tailored for fashion audiences.<br>8. Analyze campaign performance using digital metrics and tools. |   |                         |
| <b>Sr. No.</b>          | <b>Module Outcomes</b>  | <b>Course Contents</b>  | <b>Cr.</b>              |
| <b>Module 1</b>         | <b>Digital Marketing Foundations &amp; Fashion Content Creation</b>   |   | <b>01</b>               |
|                         | <b>Learning Outcomes</b>  | <b>Module Content</b>   |                         |
|                         | After learning the module, learners will be able to<br>1. Gain knowledge of digital marketing ecosystem in the fashion context.<br>2. Create engaging, SEO-optimized content for websites and social platforms.<br>3. Learn how to use tools like Google Trends, Canva, and Meta Business Suite.  | 4. Introduction to Digital Marketing – Definition, Scope, Relevance to Fashion<br>5. Owned, Paid, and Earned Media Channels<br>6. Fashion-Focused SEO Basics – Keywords, Tags, Meta Descriptions<br>7. Content Types – Blogs, Social Media Posts, Videos, Ads<br>8. Visual Tools – Canva, Adobe Express for Fashion Creatives<br>9. Email Marketing Basics – Mailchimp, Newsletters for Brands<br>10. |                         |
| <b>01Module 2</b>       | <b>Campaign Planning, Paid Ads &amp; Performance Analytics</b>  |   | <b>01</b>               |
|                         | <b>Learning Outcomes</b>  | <b>Module Content</b>   |                         |

|  |  |   |  |
|--|--|---|--|
|  | <p>After learning the module, learners will be able to</p> <p>xiv. Plan and execute a basic digital marketing campaign using Google and Meta platforms.</p> <p>xv. Define budget allocation, audience targeting, and ad design.</p> <p>xvi. Analyze campaign performance using Google Analytics and Meta Insights.</p> | <p>11. Campaign Creation – Objective, Target Audience, Message</p> <p>12. Basics of Google Ads &amp; Meta (Facebook + Instagram) Ads</p> <p>13. Budgeting &amp; Bidding Basics for Fashion Ads</p> <p>14. Ad Design Principles – CTAs, Headlines, Aesthetics</p> <p>15. Introduction to Analytics – Google Analytics, Meta Insights</p> <p>16. Understanding KPIs – CTR, Engagement Rate, CPC, ROI</p> <p>17.</p> |  |
| <b>Assignments/ Activities towards CCE</b>   |  |   |  |
| <p><b>Assignments 1</b><br/> <b>Title:</b> Create a Digital Content Kit for a Fashion Brand<br/> <b>Task:</b> Develop an SEO-optimized blog post, 2 Instagram visuals, and a newsletter draft for a fictional or real fashion brand.<br/> <b>Objective:</b> Evaluate strategic thinking, content writing, and visual marketing skills.</p> <p><b>Assignments 2</b><br/> <b>Title:</b> Design a Mini Paid Ad Campaign for a Fashion Product<br/> <b>Task:</b> Create a campaign proposal for a new fashion collection, including ad copy, visuals, target demographics, platforms, and a basic performance tracking plan.<br/> <b>Objective:</b> Assess campaign planning, strategic ad thinking, and analytical understanding.</p> |  |   |  |

## References:

- xvii. **"Digital Marketing for Dummies"**  
*Author:* Ryan Deiss, Russ Henneberry, *Publisher:* Wiley, *Publication Year:* 2020  
**"Fashion Marketing"**  
*Author:* Tony Hines and Margaret Bruce, *Publisher:* Routledge, *Publication Year:* 2012
- xviii. **"Digital Marketing Strategy: An Integrated Approach to Online Marketing"**  
*Author:* Simon Kingsnorth, *Publisher:* Kogan Page, *Publication Year:* 2022
- xix. **"SEO 2023: Learn Search Engine Optimization"**  
*Author:* Adam Clarke, *Publisher:* Independently Published, *Publication Year:* 2023

|                                |  |   |                        |
|--------------------------------|--|---|------------------------|
| <b>Course code</b><br>40444521 | <b>Course Name</b><br>Jewelry Essentials (PR)  |   | <b>Crs</b><br><b>2</b> |
| <b>Course Outcome</b>          | After going through the course, learners will be able to<br>18. Analyze the different types of jewelry and their historical and cultural significance.<br>19. Analyze the jewelry making tools and materials safely and effectively.<br>20. Demonstrate fundamental techniques such as sawing, filing, soldering, and polishing.<br>21. Design original jewelry pieces using various materials.  |   |                        |
| <b>Sr. No.</b>                 | <b>Module Outcomes</b>   | <b>Course Contents</b>  | <b>Cr.</b>             |
| <b>Module 1</b>                | <b>Fundamentals of Jewelry</b>   |   | <b>1</b>               |
|                                | <b>Learning Outcomes</b>   | <b>Module Content</b>   |                        |
|                                | After learning the module, learners will be able to<br>22. Analyze significance of jewelry history, including its roles in religion, fashion, status, and adornment. Explore how historical jewelry styles and motifs continue to influence contemporary jewelry design<br>23. Develop observational skills for accurately depicting three-dimensional objects in drawings.<br>24. Explore motifs inspired by nature, geometry, culture, and historical references.<br>25. Demonstrate the skills in depicting surface textures, reflections, and highlights to enhance the realism of jewelry renderings. | 5. History of Indian and western jewelry<br>6. Basic line and object drawing<br>7. Motif Creation & design pattern using principles<br>8. Shading & Rendering<br>9. Design ring pendants, earring and necklace. |                        |
| <b>Module 2</b>                | <b>Introduction of Tools, Vernier Caliper, Formulas &amp; Practice</b>   |   | <b>1</b>               |
|                                | <b>Learning Outcomes</b>   | <b>Module Content</b>   |                        |
|                                | 10. Describe common tools and equipment used in jewelry making, including hand tools, bench tools, and machinery<br>11. Demonstrate the skills for marking in jewelry making to achieve precise and accurate results.<br>12. Practice soldering exercises such as butt joints, T-joints, and lap joints to develop   | 17. Introduction to Tools, Safety Precautions & Workshop<br>18. Orientation of Vernier Caliper<br>19. Calculation of raising and lowering the karat<br>20. Introduction to melting                              |                        |

|   |   |  |  |
|---|---|--|--|
|   | <p>proficiency in soldering techniques</p> <p>13. Demonstrate proper handling and usage of tools, emphasizing safety practices such as wearing protective gear and handling tools with care.</p> <p>14. Demonstrate proper techniques for using the Vernier caliper to measure dimensions of objects accurately.</p> <p>15. Rise or lower the karat value on the properties and characteristics of the resulting alloy.</p> <p>16. Define the Principles of melting metal and the different methods used in jewelry making, including torch melting, crucible melting, and casting.</p> |  |  |
| <b>Assignments/ Activities towards CCE</b>  |   |  |  |
| <ul style="list-style-type: none"> <li>Rendering pearls, cabochons, and beads is an essential skill for jewelry designers. Assessment will focus on your ability to accurately depict these elements through drawing.</li> <li>The modern-day cuff bracelet is an open or closed rigid bracelet. On ones which are open, each end often has a ball so that the bracelet stays secure around your wrist. A totally closed bracelet can be snapped shut or you simply have to slide it onto your wrist.</li> <li>Draw different shapes with facets. A diamond cut is a style or faceting used when shaping a diamond Single &amp; Double brilliant cut as well as fancy shaped diamonds. Study of More Information About Different Types of Gem Cuts and Shapes.</li> </ul> |   |  |  |

### References:

Crowe, J. (2006). The jeweler's directory of gemstones: A complete guide to appraising and using precious stones from cut and color to shape and settings. Firefly Books.

"McCreight, T. (2010). *The complete metalsmith: An illustrated handbook* (20th anniversary ed.). Davis Publications.

Mentock, D. (2014). The jewelry maker's design book: An alchemy of objects.

Snyder, J. B. (2004). Art jewelry today. Schiffer Publishing.

Untracht, O. (1982). *Jewelry concepts & technology*. Doubleday, North Light Books.

|                                |   |   |                 |
|--------------------------------|---|---|-----------------|
| <b>Course code</b><br>40444511 | <b>Course Name</b><br>Precious and Semi-Precious Stones (Pr)  |   | <b>Crs</b><br>2 |
| <b>Course Outcome</b>          | After going through the course, learners will be able to<br>29. Identify various types of gemstones and their characteristics<br>30. Learn basic terminology related to gemology, such as cut, color, clarity, and carat weight.<br>31. Demonstrate gemological tools and techniques to accurately assess and evaluate gemstones<br>32. Describe the different types of gem treatments and enhancements and their effects on gemstones.   |   |                 |
| <b>Sr. No.</b>                 | <b>Module Outcomes</b>  | <b>Course Contents</b>  | <b>Cr.</b>      |
| <b>Module 1</b>                | <b>Introduction to Gemology &amp; Instruments and their applications</b>  |   | 1               |
|                                | <b>Learning Outcomes</b>  | <b>Module Content</b>   |                 |
|                                | After learning the module, learners will be able to<br>33. Apply knowledge of gemstone properties to assess quality and authenticity<br>34. Learn basic terminology related to gemology, such as cut, color, clarity, and carat weight.<br>35. Explain the formation and geological processes that create different types of gemstones<br>36. Summarize the classification systems used in gemology<br>37. Differentiate between natural and synthetic gemstones based on their physical and optical properties.<br>38. Demonstrate how to use gemological tools<br>39. Conduct basic gemological tests to identify gemstones | 40. Introduction of Gemology<br>41. Introduction to type of cuts & shapes<br>42. Types Of Rocks, Minerals and Gem<br>43. Properties of Mineral/Gemstones<br>44. Beauty, Durability and Rarity Of Gemstones<br>Instruments to use in gemology<br>45. Dichroscope<br>46. Principle<br>47. Construction and working Isotropic and Anisotropic stones<br>Dichroism and trichrome<br>48. Polaris cope<br>49. Principle<br>50. Construction and working S.R., D.R., A.G.G. & A.D.R stone<br>51. Optic character of gemstone Uniaxial and Biaxial optic signs Use of konoscope<br>52. Refractometer<br>53. Spectroscope<br>54. Visual Identification |                 |
| <b>Module 2</b>                | <b>Types of Gemstones and their structure</b>   |   | 1               |
|                                | <b>Learning Outcomes</b>  | <b>Module Content</b>   |                 |

|  |  |   |  |
|--|--|---|--|
|  | <p>After learning the module, learners will be able to</p> <p>55. classification of gemstones into inorganic, organic, and gem rocks</p> <p>56. crystalline and cryptocrystalline quartz, garnet, feldspar, tourmaline, and other gemstones.</p> <p>57. Explain the difference between inorganic and organic gemstones.</p> <p>58. Identify and classify various gemstones based on their physical characteristics and origin.</p> <p>59. Explain the differences between natural, synthetic, and imitation gemstones.</p> <p>60. Demonstrate the ability to distinguish between different synthesis methods based on inclusions and growth patterns.</p> <p>61. techniques of synthetic diamonds and colored stones.</p> <p>62. Differentiate synthetic gemstones from natural ones through microscopic observation</p> | <p>63. Various Types Of Gems: Inorganic Gems Like Crystalline And Cryptocrystalline Quartz, Garnet, Feldspar, Tourmaline, Topaz, Peridot, Chrysoberyl's Cat'sEye, Alexandrite, Spinel, Zircon, Turquoise, Malachite, Diopside, Iolite, Tanzanite, Apatite And Other Rare Stones.</p> <p>64. Organic Gemstone Like Pearl, Ivory, Amber, Coral, Jet Gem Rock Like Lapis Lazuli</p> <p>65. Synthesis Of Diamonds and Color stones</p> <p>66. Identification Of Synthetic</p> <p>67. Synthetics, Treated &amp; Imitations</p> <p>68. Certification Practice</p> |  |
| <b>Assignments/ Activities towards CCE</b> |  |   |  |
| 69.  | Lab assessment of identification of gemstone   |   |  |
| 70.  | Navratna chart of gemstones.   |   |  |
| 71.  | PPT presentation of natural and synthetic gemstones.   |   |  |

### References:

- Hughes, R. W. (2018). *\*The book of gems\**.
- Hughes, R. W. (2017). *\*Gem identification made easy: A hands-on guide to more confident buying and selling\**.
- Liddicoat, R. W. (2005). *Gemology* (6th ed.). Gemological Institute of America (GIA).
- Read, P. G. (2020). *Gemology*.
- Read, P. G. (2005). *Gems and gemology: A comprehensive guide to the nature, identification, and evaluation of gemstones*. Springer.
- Webster, R. (2008). *Gemology* (3rd ed.). Wiley.
- Read, P. (2005). *\*Gemology\**. Butterworth-Heinemann.
- Schumann, W. (2009). *\*Gemstones of the world\**. Sterling Publishing.
- Webster, R. (2004). *\*Introduction to gemology\**. Robert Webster.



|   |  |
|---|--|
| <b>Course Title</b>   | <b>Tie and Dye (Practical)</b>   |
| <b>Course Credits</b>   | <b>02</b>  |
| <b>Course Outcomes</b>  | After going through the course, learners will be able to: <ul style="list-style-type: none"> <li>1. Study history, techniques, and processes of tie and dye</li> <li>2. Explore hands-on experience in creating tie and dye</li> <li>3. Learn creative expression and experimentation through tie and dye</li> <li>4. Apply cultural and artistic significance of tie and dye within the broader context of textile arts.</li> </ul> |
| <b>Module 1 (Credit 1) Introduction to Tie and Dye Techniques</b> |  |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to: <ul style="list-style-type: none"> <li>1. Handle the materials, tools, and techniques</li> <li>2. Explore color theory and color mixing</li> <li>3. Apply Design principles and composition in tie and dye</li> </ul>   |
| <b>Content Outline</b>  | History and cultural significance of tie and dye<br>Traditional tie and dye techniques: bandhani, shibori, and leheriya<br>Dyeing techniques: immersion dyeing, resist dyeing, and direct application.   |
| <b>Module 2 (Credit 1) Advanced Tie and Dye Techniques</b>        |  |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to: <ul style="list-style-type: none"> <li>3. Experiment with different types of Tie and Dye Techniques</li> <li>4. Explore patterns and motifs using advanced Tie and Dye Techniques</li> </ul>  |
| <b>Content Outline</b>  | Advanced tie and dye techniques: clamp resist, stitch resist, and pleating   |

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)**

5. Weekly assignments (sketches, studies, sample swatches)
6. Midterm Tie and Dye project (exploration of basic techniques and design principles)
7. Final Tie and Dye project (individual Tie and Dye artwork demonstrating technical skill and creative expression)

Students will have to submit at least **06** Assignments in various materials and sizes.

**Internal Assessment:** There will be no internal assessment.

**External Assessment:** External assessment at the end of the semester, which carries a weightage of **50 marks**. During the assessment, students will create their Tie and Dye own artwork

### **Bibliography:**

Elisabeth Berkau. (2022) *Learn to Dye & Print Fabric using shibori, Tie-Dye, Sun Printing and more*. Landauer Publishing

| Subject Code                               | Courses, Modules and Outcomes  | Course Contents   | Cr       |
|--|--|---|----------|
|  | <b>SEMESTER IV</b>   |   |          |
| <b>4.4</b>                                 | <b>Festival Song (Practical) OEC</b>   |   | <b>2</b> |
|  | <b>Course Outcomes: Learners will be able to:</b><br>8. Perform the festival songs.<br>9. Analyze the evolution of national festival songs.<br>10. Identify regional musical characteristics.<br>11. Appreciate festival songs.<br>12. Recognize how music enhances unity in celebrations.<br>13. Preserve and popularize rare festival songs. |   |          |
| <b>Module 1</b>                            | <b>National Festival Songs</b>   |   | <b>1</b> |
|  | <b>LOs:</b> Learners will be able to<br>5. Study the expression of patriotism and national pride through music.<br>6. Analyze devotional and inspirational songs related to Mahatma Gandhi's ideals.<br>7. Recognize the role of music in fostering unity and tribute on significant national occasions.                                       | <b>Module Contents:</b><br>14. Songs of Unity<br>15. Songs related to Gandhi Jayanti<br>16. Songs related to Maharashtra Day<br>17. Songs related to Samvidhan Din<br>18. Other National Commemorations |          |
| <b>Module 2</b>                            | <b>Traditional Festival Songs</b>  |   | <b>1</b> |
|  | <b>LOs:</b> Learners will be able to<br>19. Sustain the tradition of festival and to promote Indian knowledge system through songs.<br>20. Explore the characteristics and emotions of different musical Songs   | <b>Module Contents: Festival Songs from different region of India</b><br>21. Diwali<br>22. Navratri<br>23. Holi<br>24. Ganesh Chaturthi<br>25. Gokul Ashtami<br>26. Ram Navami                          |          |
| <b>Assignments/ Activities towards CCE</b> |  |   |          |
|  | 27. Celebration of different festivals through Songs.<br>28. To Organized popular festival like Garba and Vasant Panchami in campus.   |   |          |

### References:

29. Khare, V. (1998). Maharashtra til loksangeet (Folk music of Maharashtra). Sahitya Prakashan.
30. Sonawane, S. L. (2005). Bharatiya loksangeet (Indian folk music). Lokvangmay Griha.
31. Vanarse, S. (2010). Loksangeet: Ek sanskrutik varasa (Folk music: A cultural heritage). Dr. Babasaheb Ambedkar Marathwada University.
32. Joshi, M. (2012). Lokgeete ani tyanche samajik mahatva (Folk songs and their social significance). Granthali Prakashan.
33. Deshpande, P. (1995). Maharashtra triya loka ani parampara (Maharashtrian folk art and traditions). Rajhans Prakashan.

34. Shinde, U. (2017). Bharatiya lokparampara ani sangeet (Indian folk traditions and music). Sadhana Prakashan.
35. Vasant. (2005). Sangeet Visharad. Hathras, UP: Sangeet Karyalaya.
36. Taralekar, G. H. (1973). Bharatiya vaddyancha itihās (History of Indian percussion instruments). Pune: Go. Ya. Rane Prakashan.
37. Borkar, P. Tulasidas. (2014). Sanvadini Sadhana. Mumbai: Shree Navdurga Prakashan.
38. Bhalodkar, J. (2006). Sanvadini (Harmonium). New Delhi: Kanishk Publication
39. Bandyopadhyaya, S. (1988). Techniques of Sitar. Delhi: B R Publication.
40. Velhal, Dr. R., & More, Dr. S. (2021). [Book Title Missing]. White Falcon Publishing.
41. Oistrakh, D. (1967). The Principles of Violin Fingering. London: Oxford University Press.

|  |  |  |          |
|--|--|--|----------|
| <b>4.4</b>                                 | <b>Introduction to AI</b>  |  |          |
| <b>Course Outcomes:</b>                    | <b>Learners will be able to:</b> <ol style="list-style-type: none"> <li>13. Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations.</li> <li>14. Analyze AI and Human Computer Interaction (HCI) problems and design and evaluate AI and HCI.</li> <li>15. Identify key issues and analyze complex problems related to AI and HCI.</li> <li>16. Examine issues related to AI and HCI.</li> </ol> |  |          |
| <b>Module 1</b>                            | <b>Introduction to Artificial Intelligence</b>   |  | <b>1</b> |
|  | <b>LOs: Learners will be able to</b> <ol style="list-style-type: none"> <li>17. Examine the concept of Artificial Intelligence (AI).</li> <li>18. Recognize various AI applications.</li> <li>19. Analyze the role and impact of AI in society.</li> <li>20. Develop critical thinking and problem-solving skills.</li> </ol>  | <b>Module Contents:</b> <ol style="list-style-type: none"> <li>21. Definition, history, and scope of AI</li> <li>22. Types of AI: narrow or weak AI, general or strong AI, and superintelligence</li> <li>23. AI applications: expert systems, natural language processing, computer vision, and robotics tools</li> </ol> |          |
| <b>Module 2</b>                            | <b>Human-Computer Interaction (HCI)</b>  |  | <b>1</b> |
|  | <b>LOs: Learners will be able to</b> <ol style="list-style-type: none"> <li>42. Examine the interactive systems using HCI principles and methods.</li> <li>43. Evaluate the impact of technology on humans and society.</li> <li>44. Communicate HCI concepts and designs effectively to stakeholders.</li> <li>45. Apply HCI principles to real-world problems</li> </ol>   | <ol style="list-style-type: none"> <li>1. Introduction to HCI: human-centered design, user experience, and usability</li> <li>2. Human factors: cognitive psychology, perception, and attention</li> <li>3. Interaction design: input devices, output devices, and interaction techniques</li> </ol>                       |          |
| <b>Assignments/ Activities towards CCE</b> |  |  |          |
|  | Students will be given the following projects: <ol style="list-style-type: none"> <li>4. AI Case Study Presentation</li> <li>5. Project on HCI Design</li> <li>6. Projects based on 'Impacts of AI'</li> </ol>   |  |          |

## References:

- Dix, A., Finlay, J., Abowd, G. D., & Beale, R. (2004). Human-Computer Interaction (3rd ed.). Pearson. United Kingdom.
- Goyal, S. K. (2015). Human-Computer Interaction. Tata McGraw-Hill. India.
- Gupta, R. K. (2012). Artificial Intelligence. Tata McGraw-Hill. India.
- Iyengar, S. S. (2011). Artificial Intelligence and Robotics. New Age International. India.

Jackson, P. C. (1985). Introduction to Artificial Intelligence. Dover Publications. United States.

Khemani, D. (2013). Artificial intelligence. Oxford University Press. India.

Russell, S., & Norvig, P. (2020). Artificial Intelligence: A Modern Approach (4th ed.). Pearson. United States.

Sharma, R. K. (2018). Human-Computer Interaction. Oxford University Press. India.

Tidwell, J. (2010). Designing Interfaces (2nd ed.). O'Reilly Media. United States.

|  |  |  |          |
|--|--|--|----------|
| <b>4.4</b>                                 | <b>Introduction to AI</b>  |  |          |
| <b>Course Outcomes:</b>                    | <b>Learners will be able to:</b> <ol style="list-style-type: none"> <li>24. Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations.</li> <li>25. Analyze AI and Human Computer Interaction (HCI) problems and design and evaluate AI and HCI.</li> <li>26. Identify key issues and analyze complex problems related to AI and HCI.</li> <li>27. Examine issues related to AI and HCI.</li> </ol> |  |          |
| <b>Module 1</b>                            | <b>Introduction to Artificial Intelligence</b>   |  | <b>1</b> |
|  | <b>LOs: Learners will be able to</b> <ol style="list-style-type: none"> <li>28. Examine the concept of Artificial Intelligence (AI).</li> <li>29. Recognize various AI applications.</li> <li>30. Analyze the role and impact of AI in society.</li> <li>31. Develop critical thinking and problem-solving skills.</li> </ol>  | <b>Module Contents:</b> <ol style="list-style-type: none"> <li>32. Definition, history, and scope of AI</li> <li>33. Types of AI: narrow or weak AI, general or strong AI, and superintelligence</li> <li>34. AI applications: expert systems, natural language processing, computer vision, and robotics</li> </ol> |          |
| <b>Module 2</b>                            | <b>Human-Computer Interaction (HCI)</b>  |  | <b>1</b> |
|  | <b>LOs: Learners will be able to</b> <ol style="list-style-type: none"> <li>7. Examine the interactive systems using HCI principles and methods.</li> <li>8. Evaluate the impact of technology on humans and society.</li> <li>9. Communicate HCI concepts and designs effectively to stakeholders.</li> <li>10. Apply HCI principles to real-world problems</li> </ol>  | <ol style="list-style-type: none"> <li>11. Introduction to HCI: human-centered design, user experience, and usability</li> <li>12. Human factors: cognitive psychology, perception, and attention</li> <li>13. Interaction design: input devices, output devices, and interaction techniques</li> </ol>              |          |
| <b>Assignments/ Activities towards CCE</b> |  |  |          |
|  | Students will be given the following projects: <ol style="list-style-type: none"> <li>14. AI Case Study Presentation</li> <li>15. Project on HCI Design</li> <li>16. Projects based on 'Impacts of AI'</li> </ol>  |  |          |

## References:

Dix, A., Finlay, J., Abowd, G. D., & Beale, R. (2004). Human-Computer Interaction (3rd ed.). Pearson. United Kingdom.

Goyal, S. K. (2015). Human-Computer Interaction. Tata McGraw-Hill. India.

Gupta, R. K. (2012). Artificial Intelligence. Tata McGraw-Hill. India.

Iyengar, S. S. (2011). Artificial Intelligence and Robotics. New Age International. India.

Jackson, P. C. (1985). Introduction to Artificial Intelligence. Dover Publications. United States.

Khemani, D. (2013). Artificial intelligence. Oxford University Press. India.

Russell, S., & Norvig, P. (2020). Artificial Intelligence: A Modern Approach (4th ed.). Pearson. United States.

Sharma, R. K. (2018). Human-Computer Interaction. Oxford University Press. India.

Tidwell, J. (2010). Designing Interfaces (2nd ed.). O'Reilly Media. United States.

|  |  |  |          |
|--|--|--|----------|
| <b>4.4</b>                                 | <b>Introduction to AI</b>  |  |          |
| <b>Course Outcomes:</b>                    | <b>Learners will be able to:</b> <ol style="list-style-type: none"> <li>35. Demonstrate fundamental understanding of the history of artificial intelligence (AI) and its foundations.</li> <li>36. Analyze AI and Human Computer Interaction (HCI) problems and design and evaluate AI and HCI.</li> <li>37. Identify key issues and analyze complex problems related to AI and HCI.</li> <li>38. Examine issues related to AI and HCI.</li> </ol> |  |          |
| <b>Module 1</b>                            | <b>Introduction to Artificial Intelligence</b>   |  | <b>1</b> |
|  | <b>LOs: Learners will be able to</b> <ol style="list-style-type: none"> <li>39. Examine the concept of Artificial Intelligence (AI).</li> <li>40. Recognize various AI applications.</li> <li>41. Analyze the role and impact of AI in society.</li> <li>42. Develop critical thinking and problem-solving skills.</li> </ol>  | <b>Module Contents:</b> <ol style="list-style-type: none"> <li>43. Definition, history, and scope of AI</li> <li>44. Types of AI: narrow or weak AI, general or strong AI, and superintelligence</li> <li>45. AI applications: expert systems, natural language processing, computer vision, and robotics</li> </ol> |          |
| <b>Module 2</b>                            | <b>Human-Computer Interaction (HCI)</b>  |  | <b>1</b> |
|  | <b>LOs: Learners will be able to</b> <ol style="list-style-type: none"> <li>17. Examine the interactive systems using HCI principles and methods.</li> <li>18. Evaluate the impact of technology on humans and society.</li> <li>19. Communicate HCI concepts and designs effectively to stakeholders.</li> <li>20. Apply HCI principles to real-world problems</li> </ol>   | <ol style="list-style-type: none"> <li>21. Introduction to HCI: human-centered design, user experience, and usability</li> <li>22. Human factors: cognitive psychology, perception, and attention</li> <li>23. Interaction design: input devices, output devices, and interaction techniques</li> </ol>              |          |
| <b>Assignments/ Activities towards CCE</b> |  |  |          |
|  | Students will be given the following projects: <ol style="list-style-type: none"> <li>24. AI Case Study Presentation</li> <li>25. Project on HCI Design</li> <li>26. Projects based on 'Impacts of AI'</li> </ol>  |  |          |

## References:

- Dix, A., Finlay, J., Abowd, G. D., & Beale, R. (2004). Human-Computer Interaction (3rd ed.). Pearson. United Kingdom.
- Goyal, S. K. (2015). Human-Computer Interaction. Tata McGraw-Hill. India.
- Gupta, R. K. (2012). Artificial Intelligence. Tata McGraw-Hill. India.
- Iyengar, S. S. (2011). Artificial Intelligence and Robotics. New Age International. India.



Jackson, P. C. (1985). Introduction to Artificial Intelligence. Dover Publications. United States.

Khemani, D. (2013). Artificial intelligence. Oxford University Press. India.

Russell, S., & Norvig, P. (2020). Artificial Intelligence: A Modern Approach (4th ed.). Pearson. United States.

Sharma, R. K. (2018). Human-Computer Interaction. Oxford University Press. India.

Tidwell, J. (2010). Designing Interfaces (2nd ed.). O'Reilly Media. United States.

|                            |  |
|----------------------------|--|
| <b>Course Title</b>        | <b>Guiding Children's Growth &amp; Behavior (OEC)</b>  |
| <b>Course Credits</b>      | <b>2 credits</b>   |
| <b>Course Outcome</b>      | <p>By the end of the course, students will be able to understand:</p> <ul style="list-style-type: none"> <li>27. analyze key principles of child guidance</li> <li>28. interpret common behavior problems in children, their causes, and effective intervention strategies.</li> <li>29. Critique disciplining techniques</li> </ul>   |
| <b>Module (Credit 1)</b>   | <b>Foundations of Child Guidance</b>   |
| <b>Learning Outcome</b>    | <p>After learning the module, learners will be able to-</p> <ul style="list-style-type: none"> <li>30. explain the concept and importance of child guidance.</li> <li>31. identify key child development theories relevant to behavior guidance.</li> <li>32. apply positive discipline techniques to guide children.</li> <li>33. recognize the role of caregivers and educators in shaping children's behavior.</li> </ul>   |
| <b>Content Outline</b>     | <ul style="list-style-type: none"> <li>34. Introduction to Child Guidance <ul style="list-style-type: none"> <li>1. Meaning, Importance &amp; Principles of Guidance</li> </ul> </li> <li>35. Theories to understand behavior <ul style="list-style-type: none"> <li>a. Vygotsky, Skinner, Albert bandura, Lawrence Kohlberg, Urie Bronfenbrenner</li> </ul> </li> <li>36. Positive Discipline for Child Guidance</li> <li>37. Role of Family, Educators, and Environment in Guidance</li> </ul> |
| <b>Module 2 (Credit 1)</b> | <b>Behavior Problems in Children</b>   |

|                         |   |
|-------------------------|---|
| <b>Learning Outcome</b> | <p>After learning the module, learners will be able to-</p> <ol style="list-style-type: none"> <li>38. identify common behavior problems in children</li> <li>39. implement positive guidance strategies for different age groups.</li> <li>40. create an environment that fosters self-regulation.</li> <li>41. assess challenging behaviors through behavior management strategies.</li> </ol>  |
| <b>Content Outline</b>  | <ol style="list-style-type: none"> <li>42. Understanding normal vs. problematic behavior <ol style="list-style-type: none"> <li>1. Causes of Behavior Problems <ol style="list-style-type: none"> <li>1. Psychological factors<br/>(temperament, emotional regulation)</li> <li>2. Environmental factors (parenting style, school environment, peer influence)</li> <li>3. Biological factors<br/>(neurological and genetic influences)</li> </ol> </li> <li>2. Common behavior problems <ol style="list-style-type: none"> <li>1. Temper tantrums, Emotional dysregulation, Lying, Stealing, Aggression, Quarrelling, Defiance, Truancy, Enuresis</li> </ol> </li> <li>3. Behavior Management Strategies <ol style="list-style-type: none"> <li>1. Positive reinforcement and discipline techniques</li> </ol> </li> </ol> </li> </ol> |

|  |  |
|--|--|
|  | 43. Cognitive-behavioral approaches for emotional regulation<br>44. Parent training and involvement<br>45. School-based interventions and teacher strategies |
|--|--|

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

#### **Module 1**

46. Develop a case study (fictional or real) describing a child displaying the behavior and propose behavior management technique

#### **Module 2**

- xx. Design an engaging digital or physical toolkit that provides practical behavior management techniques for caregivers and educators.
- xxi. Structure a debate exploring the impact of family, educators, and environment on child behavior and guidance.

#### **References:**

47. Barkley, R. A. (2020). Defiant Children: A Clinician's Manual for Assessment and Parent Training. Guilford Press.
48. Gartrell, D. (2017). Guidance of Young Children. Pearson.
49. Jain, S. & Jain, N. (2006). Handling Behavior Problems in Young Children. Scholars Hub.
50. Kazdin, A. E. (2008). The Kazdin Method for Parenting the Defiant Child. Houghton Mifflin Harcourt.
51. Nelsen, J. (2020). Positive Discipline: The Classic Guide to Helping Children Develop Self-Discipline, Responsibility, and Respect. Harmony.
52. Mash, E. J., & Wolfe, D. A. (2019). Abnormal Child Psychology. Cengage Learning.
53. Popat, S. (n.d.). Effective practices for addressing challenging behaviors.
54. Shaw, D. S., & Gilliam, K. S. (2017). Behavior Problems in Preschool Children:

Clinical and Developmental Issues. Guilford Press.

|  |   |
|--|---|
| <b>Course Title</b>  | <b>Fashion Accessory Making (Pr)</b>  |
| <b>Course Credits</b>  | <b>2 (0+2)</b>  |
| <b>Course Outcomes</b>                                       | After going through the course, learners will be able to  |
|  | 55. <b>Analyze</b> the role and significance of fashion accessories in enhancing overall style and design.  |
|  | 56. <b>Evaluate</b> various materials and construction techniques used in making accessories.   |
|  | 57. <b>Create</b> fashion accessories such as jewelry, bags, and belts using appropriate tools and methods.   |
|  | 58. <b>Apply</b> design principles and finishing techniques to improve the aesthetic and functional quality of accessories.   |
| <b>Module 1 (Credit 1): Introduction to Accessory Making</b> |   |
| <b>Learning Outcomes</b>                                     | After learning the module, learners will be able to   |
|  | xxii. Identify and analyse different fashion accessories and their significance.<br>xxiii. Understand various materials and tools used in accessory making.   |
| <b>Content Outline</b>                                       | xxiv. Overview of fashion accessories and their role in fashion.<br>xxv. Types of accessories: Jewellery, bags, belts, hair accessories, and headwear.<br>xxvi. Materials used in accessory making: Leather, metal, fabric, beads, resin, wood, waste textile raw material, etc.<br>xxvii. Tools and equipment: Cutting tools, adhesives, sewing tools, jewellery-making tools. |
| <b>Module 2(Credit 1): Jewelry Making</b>                    |   |
| <b>Learning Outcomes</b>                                     | After learning the module, learners will be able to   |
|  | xxviii. Work with different jewellery-making materials like beads, metal, fabric, resin, etc.<br>xxix. Apply various jewellery-making techniques to create wearable designs.  |
| <b>Content Outline</b>                                       | xxx. Types of jewellery: Earrings, bracelets, necklaces, rings, brooches.<br>xxxi. Techniques: Beading, wire wrapping, knotting, resin casting, metal embossing.<br>xxxii. Surface embellishments: Stone setting, engraving, painting, and mixed media techniques.  |

**Assignments/Activities towards Comprehensive Continuous Evaluation (CCE) :**

## **Module 1: Introduction to Accessory Making**

- 59. Mood Board & Research – Create a trend board on contemporary fashion accessories.
- 60. Material Swatch Book – Collect and document different accessory-making materials.

## **Module 2: Jewellery Making**

- 61. Design & Sketch – Develop 3 jewellery design sketches with material selection.
- 62. Jewellery Making Project – Create one handmade jewellery piece (earrings, necklace, or bracelet).

## **References:**

- 63. Brown, S. (2023). *Regenerative Fashion: A Pathway to Sustainable Development in the Fashion Industry*. Bloomsbury Publishing.
- 64. Armitage, N. (2022). *Leathercraft: Traditional Handcrafted Leatherwork Skills*. Schiffer Publishing.
- 65. Black, S. (2021). *The Sustainable Fashion Handbook*. Thames & Hudson.
- 66. Caspary, P. (2021). *Modern Jewelry Made Easy: A Step-by-Step Guide to Creating Stunning Handmade Pieces*. Rockport Publishers.
- 67. Gustafson, R. (2019). *Bag Design: Techniques, Inspiration, and Practical Tips for Creating Stylish Bags*. Laurence King Publishing.
- 68. Muthu, S. S. (2019). *Sustainability in the Textile and Apparel Industries*. Springer.
- 69. Gwilt, A. (2018). *Fashion Design for Sustainability*. Laurence King Publishing.
- 70. Sagara, K. (2018). *Hand-Stitched Leather: Easy Techniques and 20 Great Projects*. Kodansha International.
- 71. Young, M. (2017). *The Jeweler's Studio Handbook: Traditional and Contemporary Techniques for Working with Metal and Wax*. Quarto Publishing.
- 72. Newman, J. (2016). *Mastering Contemporary Jewelry Design: Inspiration, Process, and Techniques*. Schiffer Publishing.
- 73. Fletcher, K. (2014). *Sustainable Fashion and Textiles: Design Journeys (2nd ed.)*. Routledge.
- 74. Becker, V. (2013). *The Art of Fine Enameling (2nd ed.)*. Stackpole Books.
- 75. Horton, T. (2012). *The Leatherworking Handbook: A Practical Illustrated Sourcebook of Techniques and Projects*. Cassell.
- 76. Ivo, S. (2012). *Bags: A Selection from the Museum of Bags and Purses*. ACC Art Books.
- 77. McCreight, T. (2010). *The Complete Metalsmith: Professional Edition*. Brynmorgen Press.





|  |   |
|--|---|
| <b>Course Title</b>                    | <b>Food Labels (Th)</b>   |
| <b>Course Credits</b>                  | <b>2</b>  |
| <b>Course Outcomes</b>                 | <p>After going through the course, learners will be able to</p> <ol style="list-style-type: none"> <li>1. Define legal framework of food labeling.</li> <li>2. Identify misleading claims and assess their impact on consumer trust and public health.</li> <li>3. Describe key food label components.</li> <li>4. Interpret nutritional labeling, macronutrients, micronutrients, and front-of-pack labeling systems.</li> <li>5. Analyze different types of nutrition claims and their regulatory implications.</li> <li>6. Evaluate the regulatory and consumer implications of special labeling requirements for organic, GMO, allergen, and country-of-origin claims.</li> </ol> |
| <b>Module 1(Credit 1)</b>              | <b>Introduction, regulations, ethical considerations</b>  |
| <b>Learning Outcomes</b>               | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> <li>78. Explain the Basics of Food Labels.</li> <li>79. Analyze the Legal Framework for Food Labeling.</li> <li>80. Evaluate Country-Specific Food Labeling Regulations.</li> <li>81. Assess Consumer Awareness and Ethical Considerations in Food Labeling.</li> </ol>   |
| <b>Content Outline</b>                 | <p><b>1.Introduction to Food Labels</b><br/>         -Definition and importance of food labels<br/>         -Legal framework for food labeling</p> <p><b>2.Food Labeling Regulations</b><br/>         -Country-specific regulations (e.g., FDA [USA], FSSAI [India], EFSA [EU])<br/>         -Mandatory vs. voluntary labelling</p> <p><b>3.Consumer Awareness and Ethical Considerations</b><br/>         -Misleading claims and marketing tactics<br/>         -The role of food labels in public health<br/>         -Consumer rights and responsibilities</p>   |
| <b>Module 2(Credit 1) requirements</b> | <b>Key components, nutritional claims and special</b>   |
| <b>Learning Outcomes</b>               | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> <li>82. Identify and describe the essential components of food labels</li> <li>83. Recognize the importance of nutritional labeling and its impact on consumer choices and health.</li> <li>84. Analyze different types of nutrition claims, such as health claims.</li> <li>85. Evaluate front-of-pack labeling systems like the traffic light system and Nutri-Score in guiding consumer decisions.</li> </ol>  |

|   |  |
|---|--|
| <b>Content Outline</b>  | <p><b>1.Key Components of Food Labels</b><br/>-Mandatory components of food labels as per FSSAI guidelines</p> <p><b>2.Nutritional Labeling &amp; Claims</b><br/>-Understanding macronutrients and micronutrients on labels<br/>-Types of nutrition claims (health claims, nutrient content claims, structure-function claims)<br/>-Front-of-pack labelling (traffic light system, Nutri-Score, etc.)</p> <p><b>3.Special Labeling Requirements</b><br/>-Organic, GMO, and allergen labelling<br/>-Country of origin labelling (COOL)<br/>-Labelling for specific consumer groups (e.g., Halal, Kosher, Vegan)</p> |
| <p><b>Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):</b></p> <p>21. <b>Case Study on Misleading Food Labels:</b> Analyze real-life examples of misleading food labels, discuss their impact on consumer trust and health, and propose regulatory measures to prevent such practices.</p> <p>22. Activity: Prepare a sample food label as per the FSSAI (Mandatory) and other voluntary standards</p> |  |

**References: -**

86. Food Safety and Standards Authority of India (FSSAI). (2019). *The Pink Book: Your guide for safe and nutritious food at home*. FSSAI.
87. Scott, J. K., & Hayes, M. I. (2012). *Food labeling: FDA protections and country-of-origin labels*. Nova Science Publishers.
88. Future Learn. (n.d.). *Understanding food labels*. University of Reading. Retrieved February 23, 2025,
89. Choudhary, V. (2014). *Fundamentals of food processing, packaging, labelling and marketing*. Anmol Publications Pvt. Ltd.
90. NIIR Board of Consultants & Engineers. (2020). *Food packaging technology handbook* (3rd rev. ed.). NIIR Project Consultancy Services.

|   |  |
|---|--|
| <b>Course Title</b>   | <b>Culinary Science -II (Theory)</b>   |
| <b>Course Credits</b>   | <b>2</b>   |
| <b>Course Outcomes</b>  | <p>After going through the course, learners will be able to</p> <ol style="list-style-type: none"> <li>1. Enlist types of food commodities</li> <li>2. Observe changes taking place in foods during cooking</li> <li>3. Describe their role and uses in food preparations</li> <li>4. Discuss Popular recipes made with them</li> <li>5. Discuss Preparations made seasonally or during festivals</li> </ol> |
| <b>Module 1<br/>(Credit 1)</b>  | <b>Role of Vegetables, Fruits, Milk in Cookery</b>   |
| <b>Learning Outcomes</b>  | <p>After learning the module, learners will be able to</p> <p>Enlist types of vegetables, fruits, milk and their products</p> <p>Describe their role &amp; use in popular, seasonal and festive food preparations</p>  |
| <b>Content Outline</b>  | <p><b>VEGETABLES and FRUITS:</b><br/> Types and importance of fruits and vegetables.<br/> Processing of fruits and vegetables.<br/> Preparations as per season and festival.</p> <p><b>MILK and MILK PRODUCTS:</b><br/> Types of milk and their uses.<br/> Types of milk products and their uses.<br/> Preparations as per season and festival.</p>  |
| <b>Module 2<br/>(Credit 1)</b>  | <b>Role of Sugar, Jaggery, Spices and Condiments in Cookery</b>  |
| <b>Learning Outcomes</b>  | <p>After learning the module, learners will be able to</p> <p>Enlist types and varieties of sweetening agents &amp; spices and condiments</p> <p>Describe their role &amp; use in popular, seasonal and festive food preparations</p>  |
| <b>Content Outline</b>  | <p><b>SUGAR, JAGGERY ETC:</b><br/> Types of sugar and uses.<br/> Molasses, honey<br/> Syrups<br/> Artificial Sweeteners</p> <p><b>SPICES AND CONDIMENTS:</b><br/> Types and uses.</p>  |
| <b>Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)</b><br>Collect samples and discuss varieties of the foods<br>Select/plan popular, seasonal and festive recipes with the foods |  |

**References:**

1. S. L. Doshi. Anthropology of Foods and Nutrition. Rawat Publication, Jaipur 1995.
2. Nambiar Vanisha. Festive Foods of India, Magnum Publications, 202
3. Parvinder. S. Theory of cookery. Bali Oxford University. Press, 2017 ND
4. Pushpesh Pant. Indian: The Cookbook

|                            |  |
|----------------------------|--|
| <b>Course Title</b>        | <b>Health for All*</b>   |
| <b>Course Credits</b>      | 2  |
| <b>Course Outcomes</b>     | After going through the course, learners will be able to -   |
|                            | 23. Explain the basic concepts of health<br>24. Identify key health behaviors<br>25. Interpret basic public health concerns<br>26. Develop skills to interpret health messages<br>27. Apply behavior modification strategies for positive health outcomes      |
| <b>Module 1 (Credit 1)</b> | <b>Determinants of Health</b>  |
| <b>Learning Outcomes</b>   | 28. Develop awareness of the social determinants of health<br>29. Explain the association between healthy behaviors of populations and public health   |
| <b>Content Outline</b>     | 5. Factors influencing health: social, economic, cultural, and environmental determinants<br>6. Challenges in community health<br>7. Key health behaviors and public health<br>8. Health literacy and misinformation   |
| <b>Module 2 (Credit 1)</b> | <b>Health and Culture</b>  |
| <b>Learning Outcomes</b>   | 9. Explain the cultural context of health<br>10. Develop skills to interpret health communication<br>11. Apply knowledge of technological tools to monitor basic health parameters   |
| <b>Content Outline</b>     | 12. Cultural norms, beliefs, and traditions around health<br>13. Health communication across cultures<br>14. Community and/or culture-based health concerns and management strategies<br>15. Digital Technology and Health – Wearables, apps, telemedicine, AI |

**Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

16. Individual / group projects / essays on healthy behaviors and community health
17. Classroom discussions on health communication in different communities and cultures

18. Group or individual assignments on applications of digital technology in health monitoring for self.

**References:**

19. Park, k. (2021). Parks Textbook of Preventive and Social Medicine (28<sup>th</sup> Ed), Banarsidas Bhanot Publishers
20. Lal, S. (2007). Textbook of Community Medicine: Preventive and Social Medicine (8<sup>th</sup> Ed), CBS Publishers and Distributors Pvt. Ltd.
21. McKenzie, J.F. (2011). An Introduction to Community Health (5<sup>th</sup> Ed), Jones and Bartlett Publishers, Inc
22. MacLachlan, M. (2006). Culture and Health-A Critical Perspective Towards Global Health (2<sup>nd</sup> Ed), John Wiley & Sons Inc.

|   |   |
|---|---|
| <b>Course Title</b><br><b>Course Code</b> | <b>Caring for the Elderly (Th)</b>  |
| <b>Course Credits</b>                     | <b>2 credits</b>  |
| <b>Theory</b>                             | <b>50 Marks</b>   |
| <b>Course Outcome</b>                     | <p>By the end of this course, students will be able to:</p> <ol style="list-style-type: none"> <li>23. distinguish the biological, psychological, and social aspects of aging.</li> <li>24. compare common health issues and challenges faced by the elderly.</li> <li>25. demonstrate knowledge of ethical and legal considerations in elder care.</li> <li>26. analyze the role of family, caregivers, and community resources.</li> <li>27. examine strategies for effective communication with older adults.</li> </ol> |
| <b>Module (Credit 1)</b>                  | <b>Introduction to Gerontology</b>  |
| <b>Learning Outcome</b>                   | <p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> <li>8. analyze the aging process</li> <li>9. interpret biological aging</li> <li>10. evaluate health concerns in the elderly</li> </ol>  |
| <b>Content Outline</b>                    | <ol style="list-style-type: none"> <li>11. <b>Introduction to Gerontology</b> <ul style="list-style-type: none"> <li>• Definition of aging, demographics, lifespan development</li> </ul> </li> <li>12. <b>The Aging Process</b> <ol style="list-style-type: none"> <li>b) Biological aging, cognitive changes, emotional transitions</li> </ol> </li> </ol> <p><b>3.Health Concerns in the Elderly</b><br/>Common illnesses, nutrition, mobility, medication management</p>  |
| <b>Module 2 (Credit 1)</b>                | <b>Key Concerns in Ageing</b>   |

|                         |   |
|-------------------------|---|
| <b>Learning Outcome</b> | <p>After learning the module, learners will be able to:</p> <ol style="list-style-type: none"> <li>13. analyze mental health and aging issues in elderly</li> <li>14. demonstrate appropriate communication techniques for interacting with older adults.</li> <li>15. differentiate between various types of elder abuse and identify warning signs.</li> <li>16. assess the effectiveness of existing policies and programs for elderly welfare.</li> </ol>   |
| <b>Content Outline</b>  | <p><b>28. Mental Health and Aging</b></p> <ol style="list-style-type: none"> <li>1. Depression, dementia, loneliness, coping mechanisms</li> </ol> <p><b>29. Communication with Older Adults</b></p> <ol style="list-style-type: none"> <li>1. Active listening, empathy, non-verbal cues, cultural sensitivity</li> </ol> <p><b>30. Family and Caregiving Dynamics</b></p> <ol style="list-style-type: none"> <li>1. Informal vs. formal care, caregiver stress, intergenerational relationships</li> </ol> <p><b>31. Elder Abuse and Protection</b></p> <ol style="list-style-type: none"> <li>1. Types of abuse, detection, legal frameworks, safeguarding rights</li> </ol> <p><b>32. Policies and Programs for the Elderly</b></p> <ol style="list-style-type: none"> <li>1. Government schemes, insurance, retirement benefits, NGOs</li> </ol> |

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

#### **Module 1**

33. Create ethical guidelines to respond to scenarios involving elder care.
34. Role play on the impact of family, community, and cultural factors on elderly care.
35. Group Presentation on Elderly Issues

#### **Module 2**

36. Examine case studies to identify challenges and solutions in caregiving situations.
37. Critique ethical dilemmas related to autonomy and end-of-life decisions.
38. Design an awareness campaign or care strategy that promotes healthy aging.
39. Propose improvements to current elderly care systems or community support models.



## References:

40. Alam, M., Karan, A., & Yusuf, F. (2012). Health of the elderly in India: A multilayered analysis. In R. Mazumdar (Ed.), *Ageing in Asia – Findings from new and emerging data initiatives* (pp. 259–292). National Academies Press.
41. Hantz, T., & Hart, R. (2019). Ethical issues in caring for older adults. In J. C. Rowe (Ed.), *Clinical care for older adults* (pp. 211–230). Springer.
42. Harwood, R. H. (2012). *Dementia: The basics*. Routledge.
43. HelpAge India. (2023). *State of Elderly in India 2023*. HelpAge India. <https://www.helpageindia.org/research/>
44. Rajan, I. S., Mishra, U. S., & Sarma, P. S. (1999). *India's elderly: Burden or challenge?* Sage Publications India.
45. Sharma, M. L. (2004). Aging in India: Challenge for the society. *Indian Journal of Social Work*, 65(2), 219–232.
46. United Nations Population Fund (UNFPA) & HelpAge India. (2017). *Caring for Our Elders: Early Responses – India Ageing Report 2017*. UNFPA India. <https://india.unfpa.org>.

|   |  |
|---|--|
| <b>Course Title</b>   | <b>Applications of Basic Biotechnology for Community Development II</b><br><br><b>Sericulture II: Mulberry Silkworm Rearing</b>  |
| <b>Course Credits</b>   | 02 (Pr)  |
| <b>Course Outcomes</b>  | <p>After going through the course, learners will be able to</p> <ol style="list-style-type: none"> <li>1. To make the students aware about the significance of sericulture as a profit-making enterprise.</li> <li>2. To help the students to understand the biology of silkworms and its nutritional requirement to secrete quality silk.</li> <li>3. To give an understanding about the techniques of silkworm rearing, reeling of silk and various measures to be taken to maximize the benefits.</li> <li>4. To help the students to know about various uses of silk and develop entrepreneurial skills required for self-employment in sericulture and silk production sector.</li> </ol> |
| <b>Module 1 (Credit 1) (Pr) Introduction to sericulture. Life cycle of silkworm and its characteristic features</b> |  |
| <b>Learning Outcomes</b>  | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> <li>1. Learn about the history of sericulture and silk route.</li> <li>2. Recognize various species of silk moths in India, and exotic and indigenous races.</li> <li>3. Be aware about the opportunities and employment in sericulture industry- in public, private and government sector.</li> <li>4. Gain thorough knowledge about the techniques involved in silkworm rearing and silk reeling.</li> </ol>   |
| <b>Content Outline</b>  | <ol style="list-style-type: none"> <li>1. Study of models of rearing houses, appliances used in silkworm rearing</li> <li>2. Preparation and application of disinfectants in rearing house and appliances</li> <li>3. Technique for hot and cold acid treatment of silkworm eggs, its advantages and disadvantages</li> <li>4. Rearing Techniques: Harvesting and preservation technique; leaf selecting for different instants; mulberry leaf estimation; Identification of moulting larva, care during moulting, mounting and mounting density, types of mountages; Harvesting of cocoons, assessment of cocoons.</li> </ol>   |
| <b>Module 2 (Credit 1) (Pr) Introduction to sericulture. Rearing of mulberry silk worm</b>                          |  |

|                          |  |
|--------------------------|--|
| <b>Learning Outcomes</b> | After learning the module, learners will be able to  |
|                          | <ol style="list-style-type: none"> <li>1. Develop entrepreneurial skills necessary for self-employment in mulberry and seed production and be apprised about practicing sericulture as a profit-making enterprise.</li> <li>2. Enhance collaborative learning and communication skills through practical sessions, team work, group discussions, assignments and projects.</li> </ol>  |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>1. Selection of moth, pairing and despairing, preparation of eggs (loose and sheet, surface sterilization of eggs</li> <li>2. Visit to seed cocoon markets, commercial grainage and cold storage centre to know activities of cocoon markets, preparation of laying and cold storage of eggs.</li> <li>3. Mulberry Crop Cultivation: Preparation of nursery beds, Different propagation methods – grafting and layering, Planting System and Intercultural Operations: - pit and row system, mulching, irrigation.</li> <li>4. Visit to Sericulture research institute</li> </ol> |

#### **Assessment Criteria:**

47. Field visit to a local sericulture unit and study of all essential practices
48. Field visit to a local mulberry cultivation farm and study of different practices
49. Report making on Harvesting and preservation techniques
50. Preparation of brief study report on Sericulture after Visit to Sericulture research institute.

#### **References:**

51. Manual on Sericulture (1976); Food and Agriculture Organisation, Rome Ullal, S.R. and Narasimhanna M.N. (1987) Handbook of Practical Sericulture; 3rd Edition, CSB, Bangalore
52. Yonemura, M. and Rama Rao, N. (1951) A Handbook of Sericulture. I. Rearing of silk-worms. Government Branch Press, Mysore.
53. Ananthanarayanan, S. K. (2008) Silkworm Rearing. Daya Publishing House Aruga, H. (1994). Principles of Sericulture. CRC Press

|  |  |
|--|--|
| <b>Course Title</b>  | <b>Nutrition in Health &amp; Disease (Pr)</b>  |
| <b>Course Credits</b>  | <b>2</b>   |
| <b>Course Outcomes</b>   | <p>After going through the course, learners will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe Nutrient Functions</li> <li><b>2. Analyze</b> the impact of nutritional factors on physical and psychological aging.</li> <li><b>3. Evaluate</b> dietary modifications for common health concerns at different life stages.</li> <li>4. Identify Nutrition-Related Diseases</li> <li><b>5. Design</b> appropriate meal plans by considering physiological, socio-economic, and cultural factors.</li> <li>6. Analyze the Relationship Between Nutrition and Disease</li> </ol>   |
| <b>Module 1(Credit 1) Nutrition for the Elderly and Common Health Conditions</b> |  |
| <b>Learning Outcomes</b>   | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> <li>1. <b>Explain</b> the physiological and metabolic changes associated with aging.</li> <li>2. <b>Identify</b> the nutritional needs and common deficiencies in older adults.</li> <li>3. <b>Apply</b> dietary modifications for managing diarrhea, constipation, and fever.</li> <li>4. Evaluate the role of iron in preventing and managing iron deficiency anemia.</li> </ol>   |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>46. <b>Nutritional Considerations for the Elderly:</b> Understanding age-related changes in digestion, metabolism, and nutrient absorption. Meal planning for elderly.</li> <li>47. <b>Dietary Modifications for Common Health Issues:</b> <ol style="list-style-type: none"> <li>a. <b>Diarrhea:</b> Identifying causes, symptoms, and dietary strategies for management, including hydration and fiber intake.</li> <li>b. <b>Constipation:</b> Importance of fiber, hydration, and specific dietary interventions to promote gut health.</li> <li>c. <b>Fever:</b> Nutritional support for recovery, including hydration, energy-dense foods, and immune-boosting nutrients.</li> </ol> </li> <li>48. <b>Iron Deficiency Anemia:</b> Causes, risk factors, symptoms, and dietary strategies to improve iron intake, absorption, and overall management.</li> </ol> |
| <b>Module 2(Credit 1) Nutrition and Metabolic Health</b>                         |  |
| <b>Learning Outcomes</b>   | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> <li>5. <b>Describe</b> the role of diet in weight management and metabolic disorders.</li> <li>6. <b>Differentiate</b> between underweight, overweight, and obesity in terms of causes, health risks, and nutritional management and dietary modifications.</li> <li>7. <b>Develop</b> personalized dietary modifications for individuals with hypertension and type 2 diabetes.</li> </ol>  |

|  |   |
|--|---|
| <b>Content Outline</b>   | <p>49. <b>Dietary Modifications for Weight Management:</b></p> <p>d. <b>Underweight:</b> Identifying causes, health risks, and dietary approaches to achieve healthy weight gain through nutrient-dense meals.</p> <p>e. <b>Overweight and Obesity:</b> Understanding contributing factors, health risks, and the role of balanced diets, portion control, and lifestyle modifications.</p> <p>50. <b>Dietary Interventions for Metabolic Disorders:</b></p> <p>f. <b>Hypertension:</b> Role of sodium, potassium, DASH diet principles, and lifestyle interventions in managing high blood pressure.</p> <p>g. <b>Type 2 Diabetes:</b> Importance of glycemic control, carbohydrate management, and meal planning strategies for optimal blood sugar regulation.</p> |
| <p><b>Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):</b></p> <p>51. <b>Assessment of Meal Planning</b></p> <p>52. <b>Interpretation and designing meal plans based on different case study</b></p> <p>53. Journal writing</p> |   |

#### References:

1. Mudambi, S. R., & Rajagopal, M. V. (2022). *Fundamentals of foods, nutrition and diet therapy* (5th ed.). New Age International Pvt. Ltd.
2. Indian Council of Medical Research (ICMR). (2020). *Nutrient requirements and recommended dietary allowances for Indians*. National Institute of Nutrition.
3. **National Institute of Nutrition.** (2017). *Indian food composition tables (IFCT)*. Indian Council of Medical Research.
4. Guthrie, H. A. (1989). *Introductory nutrition*. Times Mirror/Mosby College Publishing.
5. Guthrie, H. A. (1994). *Human nutrition*. William C. Brown.
6. Joshi, S. (2021). *Nutrition and dietetics*. McGraw Hill Higher Education.
7. Mudambi, S. R., & Rajagopal, M. V. (2022). *Fundamentals of foods and nutrition* (7th ed.). New Age International Pvt. Ltd.
8. Maharashtra State Board of Secondary and Higher Secondary Education. (2012). *Food science* (1st ed.). Sheth Publications.
9. Robinson, C. H., & Lawler, M. R. (1990). *Normal and therapeutic nutrition* (17th ed.). Macmillan Publishing Co.
10. Roday, S. (2018). *Food science and nutrition* (3rd ed.). Oxford University Press.
11. Smith, A. M., Collene, A. L., & Spees, C. K. (2024). *Wardlaw's contemporary nutrition* (12th ed.). McGraw Hill.

|  |   |
|--|---|
| <b>Course Title</b>  | <b>Clinical Pathophysiology (Pr)</b>  |
| <b>Course Credits</b>  | <b>2</b>  |
| <b>Course Outcomes</b>   | <p>After going through the course, learners will be able to</p> <p>Explain the anatomy and physiology of different organ systems.<br/> Apply knowledge of normal anatomy and physiology to promote a clear understanding of disease processes<br/> Describe the pathogenesis and etiology, of various diseases<br/> Identify the clinical manifestations of various diseases.<br/> Describe how pathophysiological aberrations of organ systems influence each other's functioning</p>  |
| <b>Module 1 (Credit 1) Pathophysiology of Gastrointestinal, Cardiovascular, Hepatobiliary, and Renal Systems</b> |   |
| <b>Learning Outcomes</b>   | <ol style="list-style-type: none"> <li>1. Explore the pathophysiology of gastrointestinal disorders like reflux disease, ulcers, and inflammatory bowel diseases</li> <li>2. Examine the pathophysiology of cardiovascular conditions like hypertension, coronary artery disease, and heart failure</li> <li>3. Explain the pathophysiology of liver, gallbladder, and pancreatic disorders</li> <li>4. Describe the pathophysiology of excretory system disorders such as chronic kidney disease, nephritis, and renal failure.</li> </ol>   |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>5. Disorders of the gastrointestinal systems including GERD, ulcers, and inflammatory bowel diseases.</li> <li>6. Pathophysiology of cardiovascular disorders including hypertension, coronary artery disease, and heart failure.</li> <li>7. Disorders of Liver, Gall bladder &amp; Pancreas (e.g., cirrhosis, hepatitis), gallbladder disorders (e.g., cholelithiasis), and pancreatic disorders (e.g., pancreatitis, diabetes).</li> <li>8. Disorders of the excretory system: chronic kidney disease, nephritis, and renal failure.</li> <li>9.</li> </ol>                       |
| <b>Module 2(Credit 1) Pathophysiology of Metabolic, Endocrine, Skeletal, and Respiratory Disorders</b>           |   |
| <b>Learning Outcomes</b>   | <p>After learning the module, learners will be able to</p> <ol style="list-style-type: none"> <li>10. Explore the pathophysiology of malnutrition, and metabolic disorders affecting energy metabolism and weight management.</li> <li>11. Explain the pathophysiology of common endocrine disorders such as diabetes, thyroid dysfunction, and adrenal diseases.</li> <li>12. Correlate the mechanisms behind bone diseases and skeletal disorders like osteoporosis, osteoarthritis, and fractures.</li> <li>13. Describe the pathophysiology of respiratory disorders, including asthma, COPD, and pneumonia.</li> </ol> |

|  |  |
|--|--|
| <b>Content Outline</b>   | 14. Pathophysiological changes during obesity, malnutrition, and metabolic disorders in energy metabolism and weight management.<br>15. Disorders of the Endocrine system including diabetes, thyroid dysfunction, and adrenal diseases.<br>16. Pathophysiology of Bone Diseases and Skeletal Disorders such as osteoporosis, osteoarthritis, and bone fractures.<br>17. Disorders of the Respiratory system such as asthma, chronic obstructive pulmonary disease (COPD), and pneumonia.<br>18. |
| <b>Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):</b><br><br>Group assignments on pathophysiology of different organ systems<br><br>Case Studies/ Report interpretation |  |

### References:

19. Levison, D., Reid, R., Burt, A.D., Harrison, D.J., & Fleming, S. (Eds.). (2008). Muir's Textbook of Pathology (14th ed.). CRC Press.
20. Tortora G. J., Derrickson B. (2009). Principles of Anatomy and Physiology. (12thed.). USA:John Wiley & Sons, Inc.
21. Kumar, V., Abbas A. K., Fausto N. (2008). Robbins & Cotran Pathologic Basis of Disease (7thed.). Pennsylvania: Saunders Elsevier, Inc.
22. Porth C. (2011). Essentials of Pathophysiology: Concepts of Altered Health States. (3rded.). Philadelphia: Wolters Kluwer/ Lippincott Williams and Wilkins.
23. Krause's Food & the Nutrition Care Process - E-Book: Krause's Food & the Nutrition Care Process - E-Book A Mahan, L.K. 9780323340762

|  |  |
|--|--|
| <b>Course Title</b>  | <b>The Art of Furniture Design (Pr)</b>  |
| <b>Course Credits</b>  | 2  |
| <b>Course Outcomes</b>   | After going through the course, learners will be able to   |
|  | 1. Develop concept-based furniture designs with functional and aesthetic value.  |
|  | 2. Apply ergonomic principles to furniture layouts and forms.  |
|  | 3. Select appropriate materials and fabrication techniques for furniture making.   |
|  | 4. Demonstrate proficiency in creating scaled models and prototypes.   |
|  | 5. Evaluate and refine their designs based on user needs, sustainability, and craftsmanship.   |
| <b>Module 1 (Credit 1) – Fundamentals of Furniture Design</b>          |  |
| <b>Learning Outcomes</b>   | After learning the module, learners will be able to  |
|  | 1. Explain the fundamental principles of furniture design, including aesthetics, ergonomics, and functionality.  |
|  | 2. Analyze different furniture styles, materials, and construction techniques used in traditional and contemporary designs.  |
|  | 3. Demonstrate the ability to conceptualize and sketch original furniture designs, incorporating user needs and design trends.   |
|  | 4. Apply ergonomic principles to ensure comfort, durability, and efficiency in furniture pieces.   |
|  | 5. Explore sustainable and eco-friendly materials suitable for modern furniture making.  |
| <b>Content Outline</b>   | 1. Introduction to furniture design: History and evolution<br>2. Principles of furniture aesthetics and functionality<br>3. Anthropometry and ergonomic considerations in furniture<br>4. Materials and finishes: Wood, metal, glass, composites, and upcycled materials<br>5. Joinery techniques and construction methods<br>6. Sketching, rendering, and digital visualization tools |
| <b>Module 2 (Credit 1) – Crafting &amp; Prototyping Furniture (Pr)</b> |  |
|  | After learning the module, learners will be able to  |



|                          |  |
|--------------------------|--|
| <b>Learning Outcomes</b> | 6. Develop scaled models and prototypes using various woodworking tools, digital design software, and manual techniques.   |
|                          | 7. Construct furniture components by understanding joinery methods, assembly techniques, and surface treatments.   |
|                          | 8. Evaluate the structural integrity, material efficiency, and functional aspects of furniture designs.  |
|                          | 9. Experiment with different finishing techniques to enhance aesthetics and durability.  |
|                          | 10. Present a fully realized furniture design project, demonstrating creativity, craftsmanship, and problem-solving skills.  |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>1. Design process: From ideation to execution</li> <li>2. Fabrication techniques: Cutting, shaping, assembling, and finishing</li> <li>3. Sustainable and modular furniture design</li> <li>4. Testing and evaluating furniture prototypes</li> <li>5. Refinement and detailing of design for functionality and comfort</li> <li>6. Presentation and critique of final project</li> </ol> |

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE)**

#### **Continuous assessment based on Projects / Practical's (Marks 50)**

##### **Module -1: Practical Work:**

1. Sketching basic furniture concepts
2. Material exploration and selection exercise
3. Case study on iconic furniture designs
4. Mini prototype of a simple stool or chair

##### **Module -2: Practical Work:**

1. Creating a scaled prototype of a furniture piece (e.g., chair, table, or storage unit)
2. Hands-on work with tools and materials
3. Group critique and feedback sessions
4. Final presentation and exhibition

#### **Evaluation Pattern (50 Marks) for "The Art of Furniture Design"**

| Component                             | Marks Allocation (%) | Marks (Out of 50) |
|---------------------------------------|----------------------|-------------------|
| Concept Development                   | 20%                  | 10                |
| Sketches & Renderings                 | 15%                  | 7.5               |
| Material & Construction Understanding | 15%                  | 7.5               |
| Functional Prototype                  | 30%                  | 15                |
| Presentation & Documentation          | 20%                  | 10                |
| <b>Total</b>                          | <b>100%</b>          | <b>50 Marks</b>   |

This breakdown ensures a **balanced evaluation** of both **creative and technical aspects** of furniture design.

## References

1. Beylerian, G., & Dent, M. (2011). Designing the 21st century: Furniture, interiors, architecture. Taschen.
  2. Booth, J. (2021). Furniture making: A foundation course. Crowood Press.
  3. Brown, D. (2016). Furniture design: An introduction to development, materials, and manufacturing. Laurence King Publishing.
  4. Fiell, C., & Fiell, P. (2012). 1000 chairs. Taschen.
  5. Jones, C. (2014). Design for living: Furniture and accessories 1950-2000. Victoria & Albert Museum.
  6. Kilmer, R., & Kilmer, W. O. (2014). Construction drawings and details for interiors. Wiley.
  7. Malo, A. (2013). Woodwork: A step-by-step photographic guide. DK Publishing.
  8. McGowan, M., & Kruse, R. (2020). Furniture design: From concept to creation. Schiffer Publishing.
  9. Panero, J., & Zelnik, M. (2014). Human dimension and interior space: A source book of design reference standards. Watson-Guptill.
  10. Pile, J. (2015). Interior design. Pearson.
-

|                           |  |
|---------------------------|--|
| <b>Course Title</b>       | <b>Surface Ornamentation on Textiles</b>   |
| <b>Course Credits</b>     | 2 (0+2)  |
| <b>Course Outcomes</b>    | After going through the course, learners will be able to   |
|                           | 1. Familiarize the student with the role of surface ornamentation on textiles.   |
|                           | 2. Identify various materials suitable for surface ornamentation.  |
|                           | 3. Acquaint with various surface ornamentation techniques.   |
|                           | 4. Apply various types of ornamentation techniques.  |
|                           | 5. Apply knowledge in developing product.  |
| <b>Module 1(Credit 1)</b> |  |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to  |
|                           | 1. Adapt skills of embroidery techniques for surface ornamentation of textiles   |
| <b>Content Outline</b>    | 1. <b>Surface Ornamentation by Embroidery</b> –<br>1. Kantha / Kasuti Embroidery on Dupatta /Stole<br>Or<br>2. Satin Embroidery on Dupatta / Stole |
|                           | 1. Make one article with the given embroidery technique – <b>25 marks</b>  |
| <b>Module 2(Credit 1)</b> |  |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to  |
|                           | 1. Develop skills in various traditional paintings.  |
| <b>Content Outline</b>    | 1. <b>Traditional Fabric paintings-</b> Madhubani, Kalamkari, Phad, Pichwai, Warli.  |
|                           | 2. Make any one article with the painting technique on stole/Apparel/table cover– <b>25 marks</b>  |

#### **Evaluation:**

1. Continuous internal evaluation of 50 marks
2. Each module of 25 marks
3. No external examination.

#### **References:**

11. Bernard P CORbman - Textiles- fiber to fabric, Mac Graw Hill,Ine ,sixth edition
12. Bindu L Datary - Curtains and Draperies
13. Helene levenson-Creating an Interior, Hall INC/Englewood cliffs, New Jersey.  
1980.
14. Isabel B. Wingate- Textile fabrics and their selection, Hall, ine, Engle wood cliffs,  
New Jersey, seventh edition.
15. Ideas for great window treatments - editions of sunset books- Book editor-  
Lynne Gilberg, Editorial director- Sunset book,Bob Doyle, fifth printing July  
1995, Sunset publishing corporation
16. Kathrine Paddock Hess - Textile fibers and their use, Oxford and IBH publishing  
co, Sixth edition.
17. Larry Eisinger - Today's woman - small home Decorating, A Fawcett, publication  
ine Greenwich.
18. Reader's Digest - Complete guide to sewing, Reader's digest associate, Ine 13th  
edition

|  |   |
|--|---|
| <b>Course Title</b>  | <b>Mathematical Techniques for competitive examination Paper – 2</b>  |
| <b>Course Credits</b>  | <b>2</b>  |
| <b>Course Outcomes</b>   | After completing this course, learner will be able to   |
|  | 1. <b>Understand</b> and apply foundational concepts of the trains, Races, games of skill, Proportion, linear equations, system of linear equations and quadratic equations.  |
|  | 2. <b>Analyze</b> , evaluate, and apply advanced techniques in equations , Proportion and fast track formulae effectively, demonstrating critical thinking and proficiency in solving complex mathematical problems at an advanced level. |
|  | 3. <b>Apply</b> formulae and simplification techniques in solving basic numerical problems.   |
|  | 4. <b>Analyze</b> complex mathematical problem-solving strategies and obtain the solutions to the problems easily.  |
| <b>Module1(Credit1) – Problems based on Train, Races and Games</b> |   |
| <b>Learning Outcomes</b>   | After learning this module, learner will be able to   |
|  | 5. <b>Demonstrate</b> a comprehensive understanding of rains problems, Games of Skill and Proportion.   |
|  | 6. <b>Apply</b> shortcut formulae to obtain the solution to the problems, and Fundamental employ sophisticated problem-solving strategies for challenging mathematical questions.   |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>Problems based on Trains.</li> <li>Races and Games of Skill.</li> <li>Direct Proportion and indirect Proportion.</li> <li>Fast track formulae to solve the questions.</li> </ol>                   |
| <b>Module2(Credit1) – Equations</b>                                |   |
| <b>Learning Outcomes</b>   | After learning this module, learner will be able to   |
|  | 1. <b>Demonstrate</b> proficiency to solve mathematical problems accurately.  |
|  | 2. <b>Distinguish</b> the situations for various problems and obtain the solutions.   |
|  | 3. <b>Develop</b> the ability to analyze complex word problems, apply appropriate mathematical techniques to obtain the solutions of the problems.  |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li>Linear Equations in one, two and three variables</li> <li>System of linear equations</li> </ol>  |

|  |   |
|--|---|
|  | 7. Quadratic Equations<br>8. Word problems based on equations |
|--|---|

**Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

1. Students have to solve questions based on the topic Problems based on trains from various competitive examination question papers.
2. Solve questions based on topic Proportion from various competitive examination question papers.
3. Obtain the solutions of the problems based on Linear equations and System of equations
4. Obtain the solutions of the problems based on quadratic equations.

**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.
5. Dinkar Patil, Spardha Pariksha Ankaganit, Yashodin Publication, N 53, S.F. 4 /5/ 3 Uttamnagar Po. Trimurti Chowk CIDCO Nashik 422008

|   |  |
|---|--|
| <b>Course Title</b>   | ओ इ सी : स्पर्धा परीक्षेसाठी गणित तंत्र भाग – २  |
| <b>Course Credits</b>   | 2  |
| <b>Course Outcomes</b>  | <p>सदर विषय अभ्यासल्यानंतर विध्यार्थी पुढील बाबीसाठी सक्षम असेल</p> <p>7. <b>Understand</b> and apply foundational concepts of the speed distance and time and Calendar</p> <p>8. <b>Analyze</b>, evaluate, and apply advanced techniques in work, distance and time and fast track formulae effectively, demonstrating critical thinking and proficiency in solving complex mathematical problems at an advanced level.</p> <p>9. <b>Apply</b> formulae and simplification techniques in solving basic numerical problems.</p> <p>10. <b>Analyze</b> complex mathematical problem-solving strategies and obtain the solutions to the problems easily.</p> |
| <b>Module1(Credit1) – वेळ या संकल्पनेवर आधारित प्रश्न</b>         |  |
| <b>Learning Outcomes</b>  | <p>सदर पाठ अभ्यासल्यानंतर विध्यार्थी पुढील बाबीसाठी सक्षम असेल</p> <p>1. <b>Demonstrate</b> a comprehensive understanding of करणी, विभाज्यतेच्या कसोट्या, कमिशन व सूट, रोमन अंक</p> <p>2. <b>Apply</b> shortcut formulae to obtain the solution to the problems, and Fundamental employ sophisticated problem-solving strategies for challenging mathematical questions.</p>   |
| <b>Content Outline</b>  | <p>1. करणी</p> <p>2. विभाज्यतेच्या कसोट्या</p> <p>3. कमिशन व सूट</p> <p>4. रोमन अंक</p> <p>5. उदाहरणे जलद सोडवण्यासाठी सूत्रे व त्यांचा वापर.</p>  |
| <b>Module2(Credit1) – पाणी (द्रव) या संकल्पनेवर आधारित प्रश्न</b> |  |
| <b>Learning Outcomes</b>  | <p>सदर पाठ अभ्यासल्यानंतर विध्यार्थी पुढील बाबीसाठी सक्षम असेल</p> <p>1. <b>Demonstrate</b> proficiency to solve mathematical problems accurately</p> <p>2. <b>Distinguish</b> the situations for and obtain the solutions.</p> <p>3. <b>Develop</b> the ability to analyze complex word problems, apply appropriate mathematical techniques to obtain the solutions of the problems.</p>  |
| <b>Content Outline</b>  | <p>1. घातांक</p> <p>2. वर्ग व वर्गमूळ</p> <p>3. घन व घनमूळ</p> <p>4. अंकगणिती व भूमिती श्रेढी</p>  |

|  |   |
|--|---|
|  | 5. आंतरराष्ट्रीय प्रमाण वेळ<br>6. गुणोत्तर व प्रमाण<br>उदाहरणे जलद सोडवण्यासाठी सूत्रे व त्यांचा वापर |
|--|---|

**Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

1. विद्यार्थ्यांनी एम पी एस सी च्या मागील वर्षीच्या प्रश्नपत्रिकेमध्ये विचारलेले प्रश्न सोडवणे
2. विद्यार्थ्यांनी पोलीस भरती व तलाठी भरती च्या मागील वर्षीच्या प्रश्नपत्रिकेमध्ये विचारलेले प्रश्न सोडवणे
3. विद्यार्थ्यांनी बँक भरती च्या मागील वर्षीच्या प्रश्नपत्रिकेमध्ये विचारलेले प्रश्न सोडवणे
4. विद्यार्थ्यांनी मागील वर्षीच्या स्पर्धा परीक्षेच्या प्रश्नपत्रिकेमध्ये विचारलेले प्रश्न सोडवणे.

**संदर्भ पुस्तके:**

1. दिनकर पाटील , स्पर्धा परीक्षा अंकगणित , यशोदिन पब्लिकेशन्स नाशिक
2. सिद्धेश्वर हाडबेज , अंकगणित व बुद्धिमत्ता , भारती प्रकाशन पुणे
3. पंढरीनाथ राणे, **Sampurna Ganit** , चैताली प्रकाशन



|   |  |  |
|---|--|--|
| Course Title                              | Reasoning for Competitive Examination Part II  |  |
| Course Credits                            | 2  |  |
| Course Outcomes                           | After completing this course, learner will be able to  |  |
|   | 1. <b>Understand</b> and apply foundational concepts of reasoning to solve the problems in various competitive examinations  |  |
|   | 2. <b>Analyze</b> , evaluate, and apply advanced techniques in reasoning and fast track formulae effectively, demonstrating critical thinking and proficiency in solving complex mathematical problems at an advanced level.   |  |
|   | 3. <b>Apply</b> formulae and simplification techniques in solving problems   |  |
|   | 4. <b>Solve</b> complex mathematical problem-solving strategies and obtain the solutions to the problems appeared in various competitive examinations easily.  |  |
| Module1(Credit1) – Verbal Reasoning Tests |  |  |
| Learning Outcomes                         | After learning this module, learner will be able to  |  |
|   | 1. <b>Demonstrate</b> a comprehensive understanding of pipes, cisterns , boats and stream, Clock and Calendar .  |  |
|   | 2. <b>Apply</b> shortcut formulae to obtain the solution to the problems, and Fundamental employ sophisticated problem-solving strategies for challenging mathematical questions.  |  |
| Content Outline                           | <ul style="list-style-type: none"><li>• Series Completion<ol style="list-style-type: none"><li>1. Letter Series</li><li>Number Series</li><li>2. Letter number mixed series</li></ol></li><li>• Verbal Classification<ul style="list-style-type: none"><li>• Letter Classification</li><li>• Number Classification</li><li>• Word/ item classification</li></ul></li></ul> <ol style="list-style-type: none"><li>1. Verbal Analogy</li><li>2. Letters and Numbers analogy</li><li>3. Coding and Decoding</li><li>4. Sense of directions</li><li>5. Word building</li><li>6. Formatting meaningful word from jumbled letters</li><li>7. Word completion</li><li>8. Finding similar or dissimilar words</li><li>9. Jumbled words</li></ol> |  |
| Module2(Credit1) – Logical Reasoning      |  |  |
| Learning Outcomes                         | After learning this module, learner will be able to  |  |
|   | 1. <b>Demonstrate</b> proficiency to solve mathematical problems acc   |  |
|   | 2. <b>Distinguish</b> the situations for and obtain the solutions.   |  |

|                        |  |
|------------------------|--|
|                        | 3. <b>Develop</b> the ability to analyze complex word problems, apply a mathematical techniques to obtain the solutions of the problem   |
| <b>Content Outline</b> | <ul style="list-style-type: none"> <li>• Basic concepts in Logic</li> <li>• Types of logical relationships</li> <li>• Logical inference</li> <li>• Immediate inference</li> <li>• Assumption/ Conclusion</li> <li>• Analysis of Statements</li> <li>• Reasoning Logical Diagrams</li> <li>• Family/ Blood relations</li> <li>• Age doubts</li> <li>• Arrangement Problems</li> </ul> |

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

1. Students have to form meaningful words from given jumbled letters
2. To complete the given words.
3. To find similar and dissimilar words.
4. Find family/ Blood relations.
5. Solve Arrangement Problems.

### **Reference Books:**

1. Edgar Thorpe; Test of reasoning for competitive examinations, Third Edition, Tata McGraw Hill.
  1. For unit 1:Section 4 and 5.
  2. For unit 2:Section 6 and 7.
2. Surendranath Banarjee ; A handbook of verbal reasoning, New Age International Publisher..
3. Dr. R.S. Aggarwal; A modern Approach to verbal and Nonverbal reasoning, S. Chand.
4. Dr. M. B. Lal and Ashok Gupta; CSAT Logical Reasoning and Analytical Reasoning, Upkar Prakashan

|  |  |
|--|--|
| <b>Course Title</b>  | <b>Basic Statistics</b>  |
| <b>Course Credits</b>  | 2  |
| <b>Course Outcomes</b>   | After going through the course, learners will be able to   |
|  | 1. <b>Understand the scope of statistics.</b>  |
|  | 2. <b>Understand</b> basic terminology in Statistics.  |
|  | 3. <b>Differentiate</b> the primary and secondary data.  |
|  | 4. <b>Understand</b> the applicability of measure of central tendency and dispersion.  |
| <b>Module 1(Credit 1) – Measure of Central Tendency</b>            |  |
| <b>Learning Outcomes</b>   | After learning the module, learners will be able to  |
|  | 5. <b>Identify</b> the characteristics of the population.  |
|  | 6. <b>Interpret</b> the result through the construction of graph and diagraph.   |
| <b>Content Outline</b>   | <ul style="list-style-type: none"> <li>a. Introduction to Statistics: Population, Data, Frequency distribution,</li> <li>b. Diagram and Graph</li> <li>c. Measure of Central Tendency: Arithmetic mean, weighted mean, mode, median, quartiles, deciles.</li> </ul>  |
| <b>Module 2(Credit 1) – Measure of Dispersion and Correlation.</b> |  |
| <b>Learning Outcomes</b>   | After learning the module, learners will be able to  |
|  | 1. <b>Calculate the</b> standard deviation of data and interpret the results.  |
|  | 2. <b>Apply</b> correlation for data analysis.   |
| <b>Content Outline</b>   | <ul style="list-style-type: none"> <li>1. Introduction to dispersion</li> <li>2. Types of dispersion: range, quartile deviation, mean Deviation, standard deviation</li> <li>3. Introduction to correlation: Definition, Scatter diagram, types of correlation</li> <li>1. Karl Pearson Coefficient of Correlation, Spearman's Rank Correlation Coefficient</li> </ul> |

#### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

1. Construct three real world examples. Each example should contains at least ten observations. Students are suggested to calculate any three types of measure of central tendency and dispersion. Mention your conclusion about measure of central tendency and dispersion used for data set. Submit the detail report to course

instructor. (CO1)(CO4)

2. Make a survey of your college students and collect the data of study hours and marks obtained in last semester. Randomly collect the sample of at least 10 students from the population. Draw scatter diagram for bivariate data. Also find Karl pearson coefficient of correlation for this data. Write your comments from the calculation. Submit the detail report to course instructor (CO2)(CO3)

**References:**

1. M.F. Triola, Elementary Statistics, Pearson Education, 13<sup>th</sup> edit., Boston, 2020
2. D.J.Hand, Statistics a very short introduction, Oxford University Press, Oxford, 2014.
3. V.R.P. Murthy, Elementary Statistics, Himalaya Public. House, Mumbai, 2018.
4. S.C.Gupta, V.K.Kapoor, Introduction to statistics, Sultan Chand and Sons, New Delhi, 2018.

|  |  |
|--|--|
| <b>Course Title</b>                                    | <b>Health and Hygiene in Daily Life</b>  |
| <b>Course Credits</b>                                  | 2  |
| <b>Course Outcomes</b>                                 | <p>After going through the course, learner will be able to,</p> <ol style="list-style-type: none"> <li>1. Evaluate the role of normal microbial flora in human body.</li> <li>2. Acquainted clinical specimen collection, transportation and lab diagnosis.</li> <li>3. Categorize different bacterial, viral, fungal and protozoal diseases depending upon its causative agents and clinical features.</li> <li>4. Demonstrate variety of Antimicrobial agents.</li> <li>5. Identify the scope and relevance of medical microbiology.</li> </ol>  |
| <b>Module 1 (Credit 1) – Microbes affecting Health</b> |  |
| <b>Learning Outcomes</b>                               | <p>After learning the module, learner will be able to,</p> <ul style="list-style-type: none"> <li>• Introduce to normal microbial flora and its medical importance</li> <li>• In depth understand the host pathogen interaction</li> <li>• Evaluate different methods for clinical specimen collection, transportation and lab diagnosis.</li> </ul>   |
| <b>Content Outline</b>                                 | <ul style="list-style-type: none"> <li>• <b>Introduction to normal microbial flora and host pathogen interaction:</b> <ol style="list-style-type: none"> <li>A. Normal microflora of the human body: Importance of normal microflora, normal microflora of skin, throat, gastrointestinal tract, urogenital tract.</li> </ol> </li> <li>• <b>Host pathogen interaction:</b> <ul style="list-style-type: none"> <li>• Definitions - Infection, Invasion, Pathogen, Pathogenicity, Virulence, Toxigenicity.</li> <li>• Carriers and their types, Opportunistic infections, Nosocomial infections and Transmission of infection.               <ul style="list-style-type: none"> <li>○ <b>Clinical specimen collection, transportation and lab diagnosis:</b> <ol style="list-style-type: none"> <li>1. Collection, transport and culturing of clinical samples.</li> <li>2. Identification of microbe depending upon its cultural and biochemical characteristics.</li> </ol> </li> </ul> </li> </ul> </li> </ul> |
| <b>Module 2 (Credit 1) - Microbes causing diseases</b> |  |
| <b>Learning Outcomes</b>                               | <p>After learning the module, learner will be able to,</p>   |
|  | <ol style="list-style-type: none"> <li>1. Differentiation various diseases depending upon its causative agents.</li> <li>2. In depth understand the bacterial, viral, protozoal and fungal pathogenesis and their laboratory diagnosis</li> <li>3. Summarize variety of Antimicrobial agent depending upon its general characteristics and mode of action</li> </ol>   |

|                        |   |
|------------------------|---|
| <b>Content Outline</b> | <b>1. Bacterial Diseases:</b><br>List of diseases of various organ systems and their causative agents<br><b>2. Viral Diseases:</b><br>List of diseases of various organ systems and their causative agents<br><b>3. Protozoal Disease:</b><br>List of diseases of various organ systems and their causative agents<br><b>4. Fungal Disease:</b><br>A. Different types of mycoses  |
|                        | B. List of diseases of various organ systems and their causative agents<br><b>1. Antimicrobial agents: General characteristics and mode of action</b><br>1. Antibacterial agents: Five modes of action with one example each:<br>Inhibitor of nucleic acid synthesis, Inhibitor of cell wall synthesis, Inhibitor of cell membrane function, Inhibitor of protein synthesis, Inhibitor of metabolism.<br>2. Antifungal agents: Mechanism of action of Amphotericin B, Griseofulvin.<br>3. Antiviral agents: Mechanism of action of Amantadine, Acyclovir, Azidothymidine. |

#### **Assignments/ Activities towards Comprehensive Continuous Evaluation (CCE):**

1. Seminar Presentation:
  1. Host and Pathogen interaction
  2. Viral and fungal Diseases.
2. Quizzes on Antimicrobial agent: antibacterial, anti-fungal and antiviral agents.
3. Poster presentation on laboratory diagnosis of various bacteriological clinical specimen.
4. Demonstrate antibacterial sensitivity by kirby-Bauer method.

#### **Reference:**

1. Ananthanarayan R. and Paniker C.K.J. (2009) Textbook of Microbiology. 8th edition, University Press Publication
2. Brooks G.F., Carroll K.C., Butel J.S., Morse S.A. and Mietzner, T.A. (2013) Jawetz, Melnick and Adelberg's Medical Microbiology. 26th edition. McGraw Hill Publication
3. Goering R., Dockrell H., Zuckerman M. and Wakelin D. (2007) Mims' Medical Microbiology. 4th edition. Elsevier
4. Willey JM, Sherwood LM, and Woolverton CJ. (2013) Prescott, Harley and Klein's Microbiology. 9th edition. McGraw Hill Higher Education

|  |  |
|--|--|
| <b>Course Title</b>  | <b>Home Composting: Sustainable Waste Management at Home</b>   |
| <b>Course Credits</b>  | 2  |
| <b>Course Outcomes</b>   | <p>After going through the course, learner will be able to,</p> <ol style="list-style-type: none"> <li>1. Realise the environmental and economic benefits of home composting.</li> <li>2. Identify compostable materials and the science behind composting.</li> <li>3. Set up and manage a home composting system effectively.</li> <li>4. Troubleshoot common composting issues.</li> <li>5. Utilize compost in home gardens or plant care effectively..</li> </ol>  |
| <b>Module 1 (Credit 1) - : Introduction to Composting and Organic Waste Management</b> |  |
| <b>Learning Outcomes</b>   | <p>After learning the module, learner will be able to,</p> <ol style="list-style-type: none"> <li>6. Identify types of organic waste suitable for composting.</li> <li>7. Describe the biological process and key components (carbon, nitrogen, oxygen, moisture) involved and distinguish between different composting methods.</li> </ol>  |
| <b>Content Outline</b>   | <ol style="list-style-type: none"> <li><b>8. Introduction to Composting</b> <ol style="list-style-type: none"> <li>a. What is composting?</li> <li>b. Environmental and economic benefits</li> <li>c. Composting vs landfill disposal</li> </ol> </li> <li><b>9. Organic Waste: What Can Be Composted</b> <ol style="list-style-type: none"> <li>a. Green (nitrogen-rich) vs Brown (carbon-rich) materials</li> <li>b. What not to compost (meat, dairy, diseased plants)</li> </ol> </li> <li><b>10. The Science of Composting</b> <ol style="list-style-type: none"> <li>a. Role of microbes, fungi, and decomposers</li> <li>b. The composting cycle: aerobic breakdown</li> <li>c. Importance of C:N ratio, temperature, moisture</li> </ol> </li> <li><b>11. Types of Composting</b> <ol style="list-style-type: none"> <li>a. Backyard composting</li> <li>b. Vermicomposting (using worms)</li> <li>c. Trench and pit composting</li> <li>d. Bokashi (fermentation-based)</li> </ol> </li> <li><b>12. Setting Sustainability Goals</b> <ol style="list-style-type: none"> <li>a. Home waste audit</li> <li>b. Measuring environmental impact</li> </ol> </li> </ol> |
| <b>Module 2 (Credit 1)-: Practical Home Composting and Compost Use</b>                 |  |
| <b>Learning Outcomes</b>   | <p>After learning the module, learner will be able to,</p>   |
|  | <ol style="list-style-type: none"> <li>1. Set up a composting system suitable for home use and maintain the compost pile and monitor key parameters.</li> <li>2. Identify and solve common composting problems (odor, pests, imbalance) and harvest, store, and use finished compost effectively.</li> </ol>   |

|                        |   |
|------------------------|---|
| <b>Content Outline</b> | <ol style="list-style-type: none"> <li><b>1. Setting Up a Compost System</b> <ol style="list-style-type: none"> <li>1. Choosing a bin or DIY methods</li> <li>2. Selecting a site (balcony, backyard, apartment-friendly methods)</li> <li>3. Layering technique and starter materials</li> </ol> </li> <li><b>2. Managing the Composting Process</b> <ol style="list-style-type: none"> <li>1. Turning the pile and aeration</li> <li>2. Moisture monitoring and temperature control</li> <li>3. Speeding up decomposition naturally</li> </ol> </li> <li><b>1. Troubleshooting</b> <ol style="list-style-type: none"> <li>1. Bad smells, pest issues, slow decomposition</li> <li>2. How to rebalance the pile (adjusting greens/browns)</li> </ol> </li> <li><b>2. Harvesting and Using Compost</b> <ol style="list-style-type: none"> <li>1. Signs compost is ready</li> <li>2. Screening and storing compost</li> <li>3. Applications: potting mix, garden beds, lawn booster, tree mulching</li> </ol> </li> <li><b>3. Sustainability Integration</b> <ol style="list-style-type: none"> <li>1. Composting as a zero-waste lifestyle habit</li> <li>2. Community composting options and outreach</li> </ol> </li> </ol> |
|------------------------|---|

#### **Assignments/ Activities towards Comprehensive Continuous Evaluation (CCE):**

1. Create a personal compost bin (on-site or virtual demo)
2. Weekly composting log (materials added, pile condition)
3. Troubleshooting scenarios (case studies)
4. Field visit to a local compost facility (optional)
5. DIY compost bin building from recycled materials

#### **References:**

6. **"Let It Rot! The Gardener's Guide to Composting"** by Stu Campbell
7. **EPA Composting at Home** – <https://www.epa.gov/recycle/composting-home>
8. Local municipality or NGO composting guidelines



|  |   |
|--|---|
| <b>Course Title</b>  | <b>Energy Sources</b>   |
| <b>Course Credits</b>                                      | <b>2</b>  |
| <b>Course Outcomes</b>                                     | After going through the course, learners will be able to  |
|  | 1. <b>Apply</b> the principles of physics to explain the working mechanisms of conventional and non-conventional energy sources such as thermal, hydro, solar, wind, and nuclear energy.          |
|  | 2. <b>Analyze</b> the efficiency, advantages, and limitations of different energy conversion systems and technologies used in harnessing renewable and non-renewable energy.                      |
|  | 3. <b>Evaluate</b> the environmental impact, sustainability, and economic feasibility of various energy sources through scientific reasoning and data interpretation.                             |
|  | 4. <b>Compare</b> energy storage methods and distribution systems to determine optimal solutions for energy management in different contexts.   |
|  | 5. <b>Create</b> basic models or conceptual frameworks for alternative energy systems that demonstrate innovative use of clean and sustainable energy technologies.                               |
| <b>Module 1(Credit 1) Wind and Tidal Energy harvesting</b> |   |
| <b>Learning Outcomes</b>                                   | <b>After learning the module, learners will be able to</b>  |
|  | 1. <b>Apply</b> the fundamental principles of wind energy to understand the working of wind turbines and identify the role of different electrical machines used in wind power generation.        |
|  | 2. <b>Analyze</b> the function of power electronic interfaces and various grid interconnection topologies in integrating wind energy into the electrical grid efficiently and safely.             |
|  | 3. <b>Evaluate</b> the comparative potential of ocean energy sources against wind and solar energy, based on availability, consistency, and environmental impact.                                 |
|  | 4. <b>Interpret</b> wave and tide characteristics using statistical data to assess their suitability and efficiency for energy conversion.  |
|  | 5. <b>Examine</b> the working principles and technological aspects of wave energy devices, tidal energy systems, and ocean thermal energy conversion (OTEC) systems for harnessing marine energy. |

|  |  |
|--|--|
| <b>Content Outline</b>                                 | 1. Fundamentals of Wind energy, Wind Turbines and different electrical machines in wind turbines, Power electronic interfaces, and grid interconnection topologies. 2. Ocean Energy Potential against Wind and Solar, Wave Characteristics and Statistics, Wave Energy Devices. Tide characteristics and Statistics, Tide Energy Technologies, Ocean Thermal Energy. |
| <b>Module 2 (Credit 1) Geothermal and Hydro-energy</b> |  |
| <b>Learning Outcomes</b>                               | <b>After learning the module, learners will be able to</b>   |
|  | 1. <b>Apply</b> the principles of thermodynamics and fluid mechanics to explain the extraction and utilization of energy from geothermal resources using various geothermal technologies.  |
|  | 2. <b>Analyze</b> the working of hydropower systems by studying hydropower resources, types of turbines, and energy conversion technologies involved.  |
|  | 3. <b>Evaluate</b> the environmental and socio-economic impacts of hydropower projects, including effects on ecosystems, water usage, and displacement issues.   |
|  | 4. <b>Assess</b> the role and effectiveness of carbon capture technologies in reducing greenhouse gas emissions and supporting sustainable energy systems.   |
|  | 5. <b>Compare</b> different energy storage solutions such as electrochemical cells and batteries, and <b>examine</b> patterns of power consumption for efficient energy management.  |
| <b>Content Outline</b>                                 | Geothermal Resources, Geothermal Technologies. Hydropower resources, hydropower technologies, environmental impact of hydro power sources. Carbon captured technologies, cell, batteries, power consumption  |
| <b>References: -</b>                                   | 1. Godfrey Boyle, "Renewable Energy, Power for a sustainable future", 2004, Oxford University Press, in association with The Open University.<br>2. J. Balfour, M. Shaw and S. Jarosek, Photovoltaics, Lawrence J Goodrich(USA).<br>3. <a href="http://en.wikipedia.org/wiki/Renewable_energy">http://en.wikipedia.org/wiki/Renewable_energy</a>                     |

**Evaluation: -**

**Internal** – No Internal Evaluation for OEC

**External- 50 marks**

|  |  |
|--|--|
| <b>Course Title</b>                                      | <b>Human Parasitic Diseases</b>  |
| <b>Course Credits</b>                                    | <b>2</b>   |
| <b>Course Outcomes</b>                                   | After going through the course, learners will be able to :   |
|  | 1. Relate the various types of host-parasite interactions  |
|  | 2. Interpret the pathogenicity of the various parasitic infections   |
|  | 3. Describe the pathogenicity of the various zoonotic diseases   |
|  | 4. Evaluate the importance of national health programs for control of zoonotic infections  |
| <b>Module 1(Credit 1) : Introduction to parasitology</b> |  |
| <b>Learning Outcomes</b>                                 | After learning the module, learners will be able to  |
|  | 1. Relate the various types of host-parasite interactions  |
|  | 2. Interpret the pathogenicity of the various parasitic infections   |
| <b>Content Outline</b>                                   | <ol style="list-style-type: none"> <li>1. Introduction to Parasitology and Types of Parasites: <ol style="list-style-type: none"> <li>1. Definitions: Parasitism, Host, Parasite, Vector-biological and mechanical</li> <li>2. Types of parasite: Ectoparasite, Endoparasite and their parasitic adaptations</li> <li>3. Types of host: Intermediate and definitive, reservoir</li> </ol> </li> <li>2. Life cycle of the parasite, pathogenicity, control measures and treatment of :</li> <li>3. Amoebic dysentery</li> <li>4. Malaria</li> <li>5. Leishmaniasis (Kala azar)</li> <li>6. Taeniasis (Tape worm infection)</li> <li>7. Filariasis</li> <li>8. Ascariasis</li> </ol> |
| <b>Module 2(Credit 1) : Zoonotic diseases</b>            |  |
| <b>Learning Outcomes</b>                                 | After learning the module, learners will be able to :  |
|  | 1. Describe the pathogenicity of the various zoonotic diseases   |
|  | 2. Evaluate the importance of national health programs for control of zoonotic infections  |

|                        |   |
|------------------------|---|
| <b>Content Outline</b> | <ol style="list-style-type: none"> <li>1. Introduction to zoonosis:</li> <li>2. Causes, symptoms, prevention and treatment of : <ol style="list-style-type: none"> <li>1. Bird flu</li> <li>2. Rabies</li> <li>3. Toxoplasmosis</li> <li>4. Japanese Encephalitis</li> <li>5. outbreaks of Nipah Virus</li> <li>6. Outbreaks of nCovid-19</li> </ol> </li> <li>3. Role of National Center for Vector Borne Diseases for disease control through various awareness programs and health services</li> </ol> |
|------------------------|---|

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

- Literature review on epidemiology of the various parasitic diseases - Five research articles and newspaper articles to be included. Statistical data to be collected and conclusions drawn from these as report submission.
- Conduct a survey-based project on the awareness of the general public regarding the causes of parasitic diseases and their control. The findings could be compiled and submitted as a brief report.

### **References:**

- Parasitology. Chatterjee K. D. Chatterjee Medical Publishers.
- Textbook of Medical Parasitology- C. K. Jayaram Paniker, Jaypee Brothers.
- Essentials of Parasitology- Gerald D. Schmidt: Universal Bookstall, New Delhi.
- Introduction to Parasitology- Chandler and Read John Wiley & Sons

|                            |   |
|----------------------------|---|
| <b>Course Title</b>        | <b>Introduction to Canva</b>  |
| <b>Course Credit</b>       | <b>2 Credits</b>  |
| <b>Course Outcomes</b>     | <b>1. Apply</b> design principles such as color, typography, and composition to create visually compelling reports, presentations, and marketing materials.   |
|                            | <b>2. Analyze</b> the effectiveness of design elements, such as layout, fonts, and branding consistency, in communicating messages across various formats.  |
|                            | <b>3. Evaluate</b> the quality and impact of design work based on industry standards, visual communication strategies, and user engagement metrics.   |
|                            | <b>4. Create</b> professional documents, reports, and marketing materials using Canva's templates, customization tools, and collaboration features.   |
| <b>Module 1 (Credit 1)</b> | <b>Introduction to canva and design basics</b>  |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>  |
|                            | <ol style="list-style-type: none"> <li><b>1. Apply</b> design principles such as color, typography, and composition to create visually appealing and effective designs using Canva's tools and features.</li> <li><b>2. Analyze</b> Canva's templates and customization options to select and modify designs that align with specific business needs and branding guidelines.</li> <li><b>3. Evaluate</b> the effectiveness of reports, presentations, and other design projects based on their visual appeal, clarity, and communication of key information.</li> <li><b>4. Create</b> professional business reports, including charts, tables, and infographics, using Canva's features and tools for data visualization and effective communication.</li> <li><b>5. Design</b> engaging and dynamic presentations by incorporating multimedia elements, animations, and transitions to enhance audience interaction and message delivery.</li> </ol> |
| <b>Content Outline</b>     | <b>Introduction to Canva &amp; Design Basics</b> <ol style="list-style-type: none"> <li>1. Navigating the Canva interface</li> </ol>  |

|                            |  |
|----------------------------|--|
|                            | <ol style="list-style-type: none"> <li>1. Understanding design principles (color, typography, and composition)</li> <li>2. Exploring Canva's templates and customization options</li> </ol> <p><b>Designing Reports</b></p> <ol style="list-style-type: none"> <li>3. Creating professional business reports</li> <li>4. Formatting charts, tables, and infographics</li> <li>5. Exporting and sharing reports effectively</li> </ol> <p><b>Creating Engaging Presentations</b></p> <ol style="list-style-type: none"> <li>6. Designing visually compelling slides</li> <li>7. Using animations and transitions effectively</li> <li>8. Enhancing presentations with multimedia elements.</li> </ol>   |
| <b>Module 2 (Credit 1)</b> | <b>Marketing Material and Branding</b>   |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>   |
|                            | <ol style="list-style-type: none"> <li>1. <b>Apply</b> Canva's design tools to create marketing materials such as posters, brochures, and social media graphics that adhere to branding guidelines.</li> <li>2. <b>Analyze</b> the integration of branding elements (logos, color schemes, fonts) in marketing materials to ensure visual consistency and alignment with brand identity.</li> <li>3. <b>Evaluate</b> the effectiveness of digital and print marketing materials by applying best practices to assess their visual appeal, communication, and target audience engagement.</li> <li>4. <b>Create</b> professional documents such as letterheads, resumes, and official materials, utilizing Canva's design and collaboration features to produce polished, high-quality outputs suitable for business and personal use.</li> </ol> |
| <b>Content Outline</b>     | <p><b>Marketing Materials &amp; Branding</b></p> <ul style="list-style-type: none"> <li>• Designing posters, brochures, and social media graphics</li> <li>• Incorporating branding elements (logos, color schemes, fonts)</li> <li>• Best practices for digital and print marketing</li> </ul> <p><b>Document Design &amp; Collaboration</b></p> <ul style="list-style-type: none"> <li>• Creating letterheads, resumes, and official documents</li> </ul>  |

|  |   |
|--|---|
|  | <ol style="list-style-type: none"> <li>1. Utilizing Canva's real-time collaboration features</li> <li>2. Sharing, exporting, and printing document</li> </ol> |
| <b>Activities to be done in the classroom towards Comprehensive Continuous Evaluation (CCE)</b>  |   |
| <b>Module 1: Introduction to Canva</b><br>Create designs using canva's design tools.<br>Format Text and elements effectively.<br>Edit photos and videos. |   |
| <b>Module 2: Marketing Materials and branding</b><br>Design with drawing tools and apps.<br>Practice with interactive activities.                        |   |

**External Evaluation for 50 Marks will be conducted by university.**

**Textbooks: -**

1. "The Non-Designer's Design Book" by Robin Williams.
2. "Canva for Work: How to Design Like a Pro" by Melanie H. K.
3. "Branding: In Five and a Half Steps" by Michael Johnson
4. "Creating Documents with Canva: A Practical Guide for Beginners" by Olivia Davis

**Additional Resources:**

1. **Canva's own design tutorials:** Canva provides free, comprehensive tutorials on its platform, which are highly beneficial for students.
2. **Online articles and video tutorials** on YouTube or platforms like Skillshare and Udemy, focusing on using Canva for specific projects.

**Required Tools:**

- **Canva Free or Pro Account** (depending on access)
- Computer with internet connection

|                           |   |
|---------------------------|---|
| <b>Course Title</b>       | <b>Management Information Systems (MIS)</b>   |
| <b>Course Credits</b>     | <b>2 Credits</b>  |
|                           | 1. Evaluate the fundamental concepts and components of MIS.<br>2. Analyze the role of MIS in decision-making and business strategy<br>3. Evaluate database management techniques for effective information processing<br>4. Apply business intelligence and data analytics for strategic insights   |
| <b>Module 1(Credit 1)</b> | <b>Introduction to MIS</b>  |
| <b>Learning Outcomes</b>  | <b>After learning the module, learners will be able to</b>  |
|                           | 1. Evaluate Define MIS and its role in organizations<br>2. Apply various types of information systems<br>3. Evaluate database management techniques.<br>4. Analyze the ethical and security challenges in MIS.  |
| <b>Content Outline</b>    | <b>Introduction to MIS</b><br><br>Definition, Purpose, and Scope of MIS<br><br>Role of MIS in Business and Management<br><br>Components of MIS: Hardware, Software, Data, People, Processes<br><br><b>Types of Information Systems</b><br><br>Transaction Processing Systems<br>(TPS) Decision Support Systems<br>(DSS)<br>Enterprise Resource Planning (ERP)<br>Customer Relationship Management<br>(CRM) Business Intelligence Systems<br><br><b>Database Management &amp; Data Processing</b><br><br>Introduction to Database Management Systems<br><br>(DBMS) SQL Basics and Database Queries<br>Data Warehousing & Big Data in MIS<br><br>Cloud Computing in Data<br>Management<br><br><b>Decision Support Systems (DSS) &amp; Business Analytics</b><br><br>Role of DSS in Managerial Decision-Making |



|   |  |
|---|--|
|   | <p>Business Analytics and Predictive Analytics</p> <p>Data Visualization Techniques (Dashboards, BI Tools)</p> <p><b>MIS Security &amp; Ethical Concerns</b></p> <p>Cybersecurity Threats and MIS Security Strategies</p> <p>Ethical Issues in Information Management</p> <p>Data Privacy and Compliance (GDPR, HIPAA)</p>   |
| <b>Module 2(Credit 1)</b>   | <b>Cloud Computing and Emerging Technologies</b>   |
| <b>Learning Outcomes</b>  | 1. Create enterprise information systems using MIS principles.   |
|   | 2. Apply data analytics for business decision-making   |
|   | 3. Evaluate IT governance and risk management in MIS   |
|   | 4. Create cloud computing and emerging technologies in MIS   |
| <b>Content Outline</b>  | <p><b>Enterprise Systems &amp; IT Governance</b></p> <p>Introduction to Enterprise Information Systems</p> <p>(EIS) IT Governance Frameworks (COBIT, ITIL)</p> <p>Risk Management in Information Systems</p> <p><b>Cloud Computing &amp; Emerging Technologies</b></p> <p>Cloud-Based MIS Solutions</p> <p>AI, Machine Learning, and Automation in MIS</p> <p>Blockchain in Information Systems</p> <p><b>Business Intelligence &amp; Data Analytics</b></p> <p>Business Intelligence Tools (Power BI, Tableau) Data Mining and Machine Learning in MIS</p> <p>Case Studies on Data-Driven Decision Making</p> <p><b>Strategic Role of MIS in Organizations</b></p> <p>MIS for Competitive Advantage</p> <p>Digital Transformation and Business Innovation</p> <p>Future Trends in MIS</p> |
| <b>Activities to be done in the classroom towards Comprehensive Continuous Evaluation</b>                     |  |
| <b>Module 1</b> <ul style="list-style-type: none"> <li>Data collection and gathering for projects.</li> </ul> |  |

**Module 2**

- Effective use of cloud computing services in education.

**External Evaluation for 50 Marks will be conducted by university.**

**References:**

- **"Management Information Systems"** – Kenneth C. Laudon & Jane P. Laudon
- **"Business Intelligence: A Managerial Perspective on Analytics"** – Ramesh Sharda, Dursun Delen
- **"Database Management Systems"** – Raghu Ramakrishnan
- **"IT Strategy for Business"** – Bernard Marr
- **"Information Systems for Managers"** – Gabriele Picco

|                            |   |
|----------------------------|---|
| <b>Course Title</b>        | <b>Introduction to Entrepreneurship</b>   |
| <b>Course Credits</b>      | <b>2 Credits</b>  |
| <b>Course Outcomes</b>     | 1. Understand the Concept and Role of Entrepreneurship  |
|                            | 2. Identify and Develop Entrepreneurial Traits and Business Ideas   |
|                            | 3. Apply Knowledge to Launch and Manage a Startup   |
|                            | 4. Analyze Institutional Support and Contemporary Trends  |
| <b>Module 1 (Credit 1)</b> |   |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>  |
|                            | 1. Explain Key Concepts of Entrepreneurship   |
|                            | 2. Demonstrate Entrepreneurial Traits and Skills  |
|                            | 3. Develop a Framework to Start and Manage a Business   |
| <b>Content Outline</b>     | <b>Introduction to Entrepreneurship</b><br><br><b>Concept and Meaning of Entrepreneurship</b><br><br>Definition and evolution<br>Characteristics and need for entrepreneurship<br><b>Types and Classifications of Entrepreneurs</b><br><br>Innovative, Imitative, Drone, Fabian<br>Social, Serial, Women, and Corporate Entrepreneurs<br><b>Entrepreneur vs Manager vs Intrapreneur</b><br><br>Roles, differences, and similarities<br><b>Importance of Entrepreneurship</b><br><br>Economic and social contributions<br>Role in job creation, innovation, and self-reliance<br><b>Entrepreneurship in Indian Context</b><br><br>Historical background<br>Present trends and future scope |
| <b>Module 2 (Credit 1)</b> |   |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>  |

|   |  |
|---|--|
|   | 1.Explain key motivational theories relevant to entrepreneurship   |
|   | 2.Identify and assess entrepreneurial traits and competencies  |
|   | 3.Use creative thinking techniques   |
|   | 4.Analyze the business environment   |
| <b>Content Outline</b>  | <p><b>Entrepreneurial Motivation</b></p> <p>McClelland's Theory of Need for Achievement (nAch)</p> <p>Maslow's Hierarchy of Needs</p> <p><b>Entrepreneurial Traits and Competencies</b></p> <p>Creativity, innovation, leadership, risk-taking</p> <p>Competency mapping</p> <p><b>Idea Generation Techniques</b></p> <p>Brainstorming, mind mapping, design thinking</p> <p>Opportunity identification and assessment</p> <p><b>Feasibility Study and Business Plan Development</b></p> <p>Elements of a business plan</p> <p>Market research and demand analysis</p> <p>Project appraisal (technical, financial, social)</p> |
| <b>Activities to be done in the class towards Comprehensive Continuous Evaluation</b>   |  |
| <p><b>Module 1:</b></p> <p><b>Activities:</b></p> <p><b>1. Self-Assessment</b></p> <p>Complete a personal entrepreneurial traits checklist to identify strengths and areas for development.</p> <p><b>2.Video Reflection</b></p> <p>Watch a video or documentary on a successful entrepreneur and write a short summary of their journey and mindset.</p> |  |

### 3. Entrepreneur Profile Poster

Research and create a profile poster or digital slide of a well-known entrepreneur including:

Name & Background

Business type

Key traits

Success story

### 4. Myth Buster Quiz

Participate in a quiz identifying myths vs. realities of entrepreneurship.

### 5. Entrepreneur Case Study

Write or present on any successful entrepreneur (e.g., Kiran Mazumdar-Shaw, Elon Musk).

1. Focus on journey, challenges, and lessons.

## **Module 2:**

### **Activities:**

1. Idea Generation  
Use brainstorming or the SCAMPER method to generate 5 potential business ideas.
2. Opportunity Screening Matrix  
Select top 3 ideas and evaluate using criteria like market demand, cost, competition, and profitability.
3. Market Survey  
Conduct a basic survey (Google Form or physical) to understand customer needs or preferences.
4. SWOT Analysis  
Perform a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis for one selected business idea.

5. 2-Minute Pitch  
Prepare and present a short elevator pitch explaining:

1. What your business does
2. Who it's for
3. Why it will succeed

**Reference Books: -**

1. Entrepreneurship Development Author: S. S. Khanka Publisher: S. Chand Publishing
2. Entrepreneurship and Small Business Management Author: C.B. Gupta and N.P. Srinivasan Publisher: Sultan Chand & Sons
3. Entrepreneurship Development, Author: Vasant Desai Publisher: Himalaya Publishing House.
4. Dynamics of Entrepreneurial Development and Management, Author: Vasant Desai Publisher: Himalaya Publishing House

**Assessment:**

**External Assessment: (Marks 50)**

End Semester examination of 50 marks for 2 hours duration will be conducted

|                                |   |
|--------------------------------|---|
| <b>Course Title</b>            | <b>Data Visualization</b>   |
| <b>Course Credit</b>           | <b>2 Credits</b>  |
| <b>Course Outcomes</b>         | 1. Understand the principles and importance of data visualization   |
|                                | 2. Connect to and prepare data from various sources for visualization.  |
|                                | 3. Develop and customize basic visualizations and dashboards.   |
|                                | 4. Design advanced visualizations and apply complex calculations  |
|                                | 5. Apply storytelling principles and best practices in data visualization.  |
| <b>Module 1<br/>(Credit 1)</b> | <b>Introduction of Data Visualization</b>   |
| <b>Learning Outcomes</b>       | <b>After learning the module, learners will be able to</b>  |
|                                | <p>Describe the key features and benefits of using Tableau/Power Bi for data visualization</p> <p>Create basic visualizations (bar charts, line charts, scatter plots, etc.) using Tableau/Power Bi to communicate data insights.</p> <p>Design interactive dashboards using Tableau/Power Bi, incorporating filters, parameters, and actions to facilitate data exploration.</p>   |
| <b>Content Outline</b>         | <p>Introduction to Data Visualization and Tableau/Power Bi</p> <p>Overview of data visualization and its importance</p> <ol style="list-style-type: none"> <li>1. Introduction to Tableau/Power Bi and its features</li> <li>2. Setting up Tableau/Power Bi and connecting to data sources</li> </ol> <p>Connecting to Data Sources and Data Preparation</p> <ol style="list-style-type: none"> <li>3. Connecting to various data sources (Excel, CSV, SQL Server, etc.)</li> <li>4. Data preparation and cleaning</li> <li>5. Data modelling and data validation</li> </ol> <p>Creating Basic Visualizations and Dashboards</p> <ol style="list-style-type: none"> <li>1. Creating basic visualizations (bar charts, line charts, scatter plots, etc.)</li> <li>2. Creating interactive dashboards</li> <li>3. Using filters, parameters, and actions</li> </ol> |

|   |  |
|---|--|
| <b>Module 2<br/>(Credit 1)</b>  | <b>Advanced Data Visualization</b>   |
| <b>Learning Outcomes</b>  | <b>After learning the module, learners will be able to</b>   |
|   | <p>Create advanced visualizations (maps, treemaps, word clouds, etc.) using Tableau/Power Bi to communicate complex data insights.</p> <p>Design interactive stories and presentations using Tableau/Power Bi to communicate data insights effectively.</p>  |
| <b>Content Outline</b>  | <p>Advanced Visualizations and Calculations</p> <ol style="list-style-type: none"> <li>1. Creating advanced visualizations (maps, treemaps, word clouds, etc.)</li> <li>2. Using calculations and formulas in Tableau/Power Bi</li> <li>3. Creating custom calculations and data blending</li> </ol> <p>Storytelling and Presentation</p> <ul style="list-style-type: none"> <li>• Principles of storytelling and presentation</li> <li>• Creating interactive stories and presentations</li> <li>• Using annotations, labels, and tooltips</li> </ul> <p>Advanced Topics and Best Practices</p> <ol style="list-style-type: none"> <li>1. Advanced topics (data densification, data visualization best practices, etc.)</li> <li>2. Data visualization best practices</li> <li>3. Creating reusable dashboards and templates</li> </ol> |
| <b>Assignment/Activities towards Comprehensive Continuous Evaluation (CCE):</b>   |  |
| <p><b>Module 1: Introduction to Data Visualization</b></p> <p>Assignment 1: Basic Visualization Project</p> <ul style="list-style-type: none"> <li>- Create basic visualizations (bar charts, line charts, scatter plots, etc.) using Tableau/Power Bi to communicate data insights.</li> <li>- Use a sample dataset to create 3-4 basic visualizations and submit a report explaining the insights gained from each visualization.</li> </ul> <p>Assignment 2: Interactive Dashboard</p> <ul style="list-style-type: none"> <li>-Design an interactive dashboard using Tableau/Power Bi, incorporating filters, parameters, and actions to facilitate data exploration.</li> </ul> |  |



- Task: Create an interactive dashboard using a sample dataset and submit a report explaining the design decisions and functionality.

Activity: Data Visualization Quiz

- Assess understanding of data visualization concepts and Tableau/Power Bi features.
- Complete a quiz on data visualization concepts, Tableau/Power Bi features, and best practices.

## **Module 2: Advanced Data Visualization**

Assignment 1: Advanced Visualization Project

- Create advanced visualizations (maps, treemaps, word clouds, etc.) using Tableau/Power Bi to communicate complex data insights.
- Use a sample dataset to create 2-3 advanced visualizations and submit a report explaining the insights gained from each visualization.

Assignment 2: Interactive Storytelling

- Design an interactive story using Tableau/Power Bi to communicate data insights effectively.
- Create an interactive story using a sample dataset and submit a report explaining the narrative and design decisions.

## **Textbooks:**

1. Chaturvedi, A., & Malik, P. (2024). *Mastering data visualization with Tableau*. BPB Publications.
2. Kumar, P. (2020). *Data visualization with Tableau*. Notion Press
3. Roy, S. (2023). *Data visualization using Power BI, Orange, and Excel*. Notion Press

## **Assessment:**

### **External Assessment: (50 marks)**

End Semester examination of 50 marks for 2 hours duration will be conducted

|                            |  |
|----------------------------|--|
| <b>Course Title</b>        | <b>Web Content Management Systems Design</b>   |
| <b>Course Credit</b>       | <b>2 Credits</b>   |
| <b>Course Outcomes</b>     | 1. Understand the fundamental concepts and architecture of Web Content Management Systems (WCMS).  |
|                            | 2. Develop skills in creating, designing, and maintaining websites using popular WCMS platforms like WordPress   |
|                            | 3. Manage digital content effectively using themes, plugins, and content blocks.   |
|                            | 4. Collaborate and publish content on a CMS-driven website.  |
|                            | 5. Apply SEO and web usability principles in a CMS environment.  |
| <b>Module 1 (Credit 1)</b> | <b>Introduction to Web Content Management Systems Design (WCMS)</b>  |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>   |
|                            | Describe key components and advantages of WCMS.  |
|                            | Install and configure a basic WordPress site on a local server.  |
|                            | Create and manage content using posts, pages, and media in a CMS.  |
| <b>Content Outline</b>     | <ul style="list-style-type: none"> <li>• Introduction to WCMS</li> <li>• Types and features of CMS platforms (WordPress, Joomla, Drupal)</li> <li>• WCMS architecture and core components</li> <li>• Installing WordPress on local server (XAMPP)</li> <li>• Overview of WordPress dashboard and settings</li> <li>• Creating and managing posts and pages</li> <li>• Media library management and content organization</li> </ul> |
| <b>Module 2 (Credit 1)</b> | <b>Design and Functional Customization in WordPress</b>  |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>   |
|                            | Design a simple website layout using themes and plugins.   |
|                            | Manage user roles and implement basic site security.   |
|                            | Demonstrate understanding of SEO, widgets, and responsive design.  |

|  |   |
|--|---|
| <b>Content Outline</b>   | <ul style="list-style-type: none"> <li>• Customizing WordPress themes and layout</li> <li>• Installing and configuring plugins</li> <li>• Using widgets and menus</li> <li>• Understanding user roles and permissions</li> <li>• SEO basics and permalinks</li> <li>• Website backup and basic security tips</li> <li>• Responsive design principles</li> </ul> |
| <b>Assignment/Activities towards Comprehensive Continuous Evaluation (CCE):</b>  |   |
| <b>Module 1:</b><br>Install and set up a WordPress site using XAMPP.<br>Create a 3-page website with homepage, about, and contact sections using a theme and plugins |   |
| <b>Module 2:</b><br>Customize menu, sidebar, and add a gallery plugin.<br>Submit a working folder and a video walkthrough of your site.                              |   |

**References: -**

1. **Singh, S. (2019).** *Web Designing and Development*. Katson Books. Covers HTML, CSS, WordPress basics, and CMS concepts in simple language.
2. **Xavier, C. (2018).** *Web Technology and Design*. New Age International Publishers. Comprehensive overview of web technologies including CMS fundamentals.
3. **Williams, A. (2023).** *WordPress for Beginners 2023*. Independently Published. Step-by-step guide to building WordPress websites.
4. **Sipos, D. (2021).** *Drupal 9 Module Development*. Packt Publishing. Focused on module development and customization in Drupal-based WCMS.
5. **Pisa, L. (2022).** *Joomla! 4 Masterclass*. Independently Published. Covers site creation and content publishing using Joomla CMS.

**Assessment:**

**External Assessment: (50 marks)**

End Semester examination of 50 marks for 2 hours duration will be conducted

|                            |  |
|----------------------------|--|
| <b>Course Title</b>        | <b>Introduction to Graphic Design</b>  |
| <b>Course Credit</b>       | <b>2 Credits</b>   |
| <b>Course Outcomes</b>     | 1. Understand the core principles of graphic design and digital visual communication.  |
|                            | 2. Use Canva to design professional and engaging graphics for social media, print, and branding.   |
|                            | 3. Explore and apply open-source tools like GIMP, Inkscape, and Photopea for advanced editing and illustration.  |
|                            | 4. Create digital designs using principles of composition, layout, and color theory.   |
|                            | 5. Build a portfolio of creative work using both browser-based and open-source tools.  |
| <b>Module 1 (Credit 1)</b> | <b>Design with Canva</b>   |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>   |
|                            | 1. Recognize and apply design principles using Canva's interface and templates.  |
|                            | 2. Create marketing materials like flyers, infographics, social media posts, and brochures.  |
|                            | 3. Customize templates using color, typography, layout, and brand assets.  |
| <b>Content Outline</b>     | <p>Introduction to Graphic Design and Canva</p> <ul style="list-style-type: none"> <li>• Elements and Principles of Design</li> <li>• Canva interface overview and templates</li> <li>• Brand Kit and design identity</li> </ul> <p>Designing for Real-World Applications</p> <ul style="list-style-type: none"> <li>• Posters, flyers, infographics</li> <li>• Instagram, Facebook, and YouTube graphics</li> <li>• Resume and business card designs</li> </ul> <p>Collaboration and Export</p> <ul style="list-style-type: none"> <li>• Team design, comment and share features</li> <li>• Export formats and printing guidelines</li> </ul> |
| <b>Module 2 (Credit 1)</b> | <b>Graphic Design with Open-Source Tools</b>   |
| <b>Learning Outcomes</b>   | <b>After learning the module, learners will be able to</b>   |
|                            | 1. Use open-source tools like GIMP and Inkscape for photo editing and vector illustration.   |
|                            | 2. Apply advanced features like layers, masks, and   |

|  |  |
|--|--|
|  | blending modes.  |
|  | 3. Create UI design, logos, icons, and mockups using open-source environments.   |
| <b>Content Outline</b>   | <p>Introduction to Open-Source Design Tools</p> <ol style="list-style-type: none"> <li>1. Overview of GIMP, Inkscape, Photopea</li> <li>2. Installation and interface navigation</li> </ol> <p>Advanced Design Techniques</p> <ol style="list-style-type: none"> <li>1. Image manipulation and photo retouching (GIMP)</li> <li>2. Vector design and logo creation (Inkscape)</li> <li>3. Working with layers, gradients, paths, and filters</li> </ol> <p>Cross-Tool Integration</p> <ol style="list-style-type: none"> <li>1. Exporting between tools (SVG, PNG, PSD formats)</li> <li>2. Preparing assets for web and print</li> <li>3. Introduction to collaboration tools and versioning</li> </ol> |
| <b>Assignment/Activities towards Comprehensive Continuous Evaluation (CCE):</b>  |  |
| <b>Module 1: Design with Canva</b> <ol style="list-style-type: none"> <li>4. Assignment 1: Create a campaign poster, an Instagram post, and a business card using Canva.</li> <li>5. Assignment 2: Collaborate on a brochure project using Canva Team. Submit final designs and peer feedback.</li> </ol>  |  |
| <b>Module 2: Open-Source Tools</b> <ol style="list-style-type: none"> <li>6. Assignment 1: Create a logo and a multi-layered digital illustration using GIMP or Inkscape.</li> <li>7. Assignment 2: Submit a branding kit (logo, icons, typography samples) using only open-source tools. Include export files and process documentation.</li> </ol> |  |

**References: -**

1. Chapman, C. (2023). *The Non-Designer's Guide to Canva*. Independently Published.
2. Lobster, T. (2021). *GIMP 2.10 Cookbook*. Packt Publishing.
3. Bah, O. (2022). *Mastering Inkscape for Graphic Design*. TechPress.
4. Smith, A. (2023). *Design with Open Tools: GIMP, Inkscape, and Photopea*. Open Source Visuals.
5. Canva Design School: <https://www.canva.com/learn>

**Assessment:**

**External Assessment: (50 marks)**

End Semester examination of 50 marks for 2 hours duration will be conducted

|  |   |
|--|---|
| <b>Course Title</b>                                      | <b>Blood Bank and Related Technique's (Theory + Practical)</b>  |
| <b>Course Credits</b>                                    | <b>2 (1+1)</b>  |
| <b>Course Outcomes</b>                                   | After going through the course, the learner will be able to   |
|  | 1. Comprehend the different types of blood donors and donation.   |
|  | 2. Information about adverse reaction.  |
|  | 3. They will be able to know the importance of blood transfusion.   |
|  | 4. Information about blood components and separation techniques.  |
|  | 5. Importance of quality control and waste management in blood bank.  |
| <b>Module 1 (Credit 1) – Transfusion Medicine Theory</b> |   |
| <b>Learning Outcomes</b>                                 | After learning the module, the learner will be able to,   |
|  | 1. Introduce the blood bank and its importance.   |
|  | 2. Information about blood grouping and understanding the importance of compatibility testing.  |
|  | 3. Understand Hemapheresis and its working.   |
|  | 4. They will be able to know about the different blood transfusion reactions.   |
| <b>Course Outline</b>                                    | <ol style="list-style-type: none"> <li><b>Blood Collection:</b> Donor Registration, Selection of Blood Donor, Medical History and Physical Assessment, Rejection Criteria, Phlebotomy, Adverse Donor Reaction.</li> <li><b>Blood Processing:</b> ABO Blood Grouping and Rh Typing, Antibody Screening, Transfusion Transmitted Disease Testing.</li> <li><b>Blood Preservation:</b>Anticoagulant and RBCs Additives, Biochemical Changes in Stored Blood, Storage of Frozen RBCs.</li> <li><b>Blood Components:</b>Preparation and Selection of Blood Components and Derivates, Temperature and Storage of Blood Components.</li> <li><b>Special Situations:</b>Apheresis, Hemolytic Diseases of Newborns, Exchange Transfusion, Autologous Transfusion.</li> <li><b>Pretransfusion Testing:</b>General Consideration, Selection of Unit, Compatibility Testing, Antibody Screening, Coomb's Testing.</li> <li><b>Infusion of Blood and its Components:</b> Proper Identification, Conditions Affecting While Infusion of Blood or Blood Components, Monitoring the Patients.</li> <li><b>Transfusion Reaction:</b>Hemolytic And Nonhemolytic Transfusion Reaction, Investigation of Transfusion Reaction, Transfusion Transmitted Diseases, Graft Versus Host Diseases (GVHD), Transfusion Induces Immunosuppression.</li> <li><b>Quality Management</b></li> <li><b>Waste Management</b></li> </ol> |

| <b>Module 2 (Credit 1) – Transfusion Medicine Practical</b> |   |
|---|---|
| <b>Learning Outcomes</b>                                    | After learning the module, the learner will be able to,   |
|   | 1. Importance of blood grouping and antibody screening.   |
|   | 2. Information about different testing to avoid transfusion reaction.   |
| <b>Course Outline</b>                                       | <ol style="list-style-type: none"> <li>1. Collection of Blood from Donor</li> <li>2. Preparation And Storage of Blood Components</li> <li>3. Preparation of Pooled Red Cells</li> <li>4. ABO Blood Grouping and Rh Typing</li> <li>5. Antibody Screening</li> <li>6. Test for Weak D or Du Variants</li> <li>7. Quality Check of Antisera</li> <li>8. Coomb's Test or Antiglobulin Testing</li> <li>9. Compatibility Testing or Cross-Matching</li> <li>10. Transfusion Transmitted Disease Testing</li> <li>11. Investigation of Transfusion Reaction</li> </ol> |

**Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

1. Blood bank drive
2. 10 Marks Presentation and Assessment

**Reference Books:**

- Textbook of Medical Laboratory Technology by Dr. P. B. Godkar, 4<sup>th</sup> edition, 2024
- Essential in hematology and clinical pathology by Dr. Ramdas Nayak, 2<sup>nd</sup> edition, 2017
- Henry's Clinical Diagnosis & Management by Laboratory methods by Mc Pherson and Pincus, 23<sup>rd</sup> edition, 2016

|                           |   |
|---------------------------|---|
| <b>Course Title</b>       | <b>Waste Management</b>   |
| <b>Course Credits</b>     | 2   |
| <b>Course Outcomes</b>    | After going through the course, learners will be able to  |
|                           | <ul style="list-style-type: none"> <li>• To provide basic understanding of waste types, sources, and characteristics.</li> <li>• To familiarize students with sustainable waste handling, treatment, and disposal techniques.</li> <li>• To promote awareness of waste legislation and community involvement.</li> <li>• To introduce concepts of zero-waste and circular economy approaches.</li> </ul>  |
| <b>Module 1(Credit 1)</b> | <b>Fundamentals of Waste Management</b>   |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to   |
|                           | <ol style="list-style-type: none"> <li>1. Identify and classify different types of waste.</li> <li>2. Understand methods for effective waste treatment and disposal.</li> <li>3. Interpret key waste management regulations and policies in India.</li> <li>4. Propose sustainable solutions for waste minimization and recovery.</li> </ol>  |
| <b>Content Outline</b>    | <p>Definition and classification of waste:</p> <ul style="list-style-type: none"> <li>• Solid waste, municipal waste, industrial waste, agricultural waste, biomedical waste, hazardous waste, e-waste, plastic waste</li> <li>• Sources and composition of various wastes</li> <li>• Collection, segregation, storage, and transportation of waste</li> <li>• Problems associated with unscientific waste disposal (health, environment, economy)</li> <li>• Overview of waste management hierarchy: Reduce, Reuse, Recycle, Recover, Dispose</li> </ul> |
| <b>Module 2(Credit 1)</b> |   |
| <b>Learning Outcomes</b>  | After learning the module, learners will be able to   |
|                           | <ol style="list-style-type: none"> <li>1. Introduction to Circular Economy and Zero Waste Practices</li> <li>2. Case studies: Indian municipalities with successful waste management systems</li> </ol>   |



|                        |   |
|------------------------|---|
|                        |   |
| <b>Content Outline</b> | <p>Waste treatment methods:</p> <ul style="list-style-type: none"> <li>• Composting, vermicomposting, anaerobic digestion</li> <li>• Incineration, pyrolysis, RDF (Refuse Derived Fuel)</li> <li>• Landfilling: types, leachate control, methane recovery</li> <li>• Resource recovery and recycling technologies</li> <li>• Informal sector and waste pickers in India</li> <li>• Extended Producer Responsibility (EPR)</li> <li>• Overview of Solid Waste Management Rules 2016, Plastic Waste Rules, and E-Waste Rules</li> </ul> |

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

#### **Module I: Classification and Sources of Waste**

**Activity Title:** Waste Audit of Local Environment

**Assignment Type:** Field Observation + Classification Report

#### **Tasks:**

1. Conduct a **waste audit** at your home, college, or a public place.
2. Classify the waste into the following categories:
  1. Biodegradable
  2. Non-biodegradable
  3. Municipal
  4. Industrial
  5. Biomedical
  6. E-waste
3. Create a tabular report with:
  1. Type of waste
  2. Quantity (approx.)
  3. Source (household, lab, office, etc.)
  4. Disposal method
4. Optional: Take photos or sketches and suggest improvements in disposal or segregation.

#### **Module II: Waste Collection and Segregation**

**Activity Title:** Design a Segregation Plan for a Small Community

**Assignment Type:** Flowchart + Awareness Report

#### **Tasks:**

1. Propose a **waste collection and segregation model** for:
  1. A school/college campus
  2. Small housing society

3. Local street or ward
2. Include:
  1. Color-coded bins and their types
  2. Flowchart from collection to processing
  3. Awareness strategies (posters, talks, campaigns)
3. Optional: Draft a sample **waste management awareness poster** for display.

### **Module III: Waste Treatment Methods**

**Activity Title:** Comparative Study of Waste Disposal Techniques

**Assignment Type:** Concept Map + Short Analytical Report

#### **Include in your report:**

1. Principles and comparison of:
  1. Landfilling
  2. Incineration
  3. Composting
  4. Vermicomposting
  5. Anaerobic digestion
2. For each method:
  1. Write pros and cons
  2. Cost-effectiveness
  3. Environmental impact
  4. Suitability for different waste types
3. Optional: Visit or virtually explore a local composting or waste facility and include your observations.

### **Module IV: Waste Management Laws and Sustainability**

**Activity Title:** Understanding Waste Policies and Circular Economy

**Assignment Type:** Legislative Report + Sustainable Solutions

#### **Tasks:**

1. Study key features of Indian Waste Management Rules:
  1. Solid Waste Management Rules (2016)
  2. E-Waste Management Rules (2022)
  3. Plastic Waste Management Rules
2. Include in your report:
  1. Summary of regulations
  2. Roles of individuals, municipalities, and industries
  3. Penalties and compliance framework
3. Suggest sustainable practices aligned with **circular economy**:
  1. Reduce–Reuse–Recycle strategies
  2. Extended producer responsibility
  3. Zero waste lifestyle tips

#### **Reference:**

1. Duckett, J. (2011). HTML and CSS: Design and Build Websites. Wiley.
2. Castro, E., & Hyslop, B. (2013). HTML5 and CSS3: Visual QuickStart Guide. Peachpit Press.

3. W3Schools Online Web Tutorials –  
[<https://www.w3schools.com>](<https://www.w3schools.com>)
4. Mozilla Developer Network (MDN) –  
[<https://developer.mozilla.org>](<https://developer.mozilla.org>)

|                             |   |
|-----------------------------|---|
| <b>Course Title</b>         | <b>Medicinal Plants</b>   |
| <b>Course Credits</b>       | 2   |
| <b>Course Outcomes</b>      | After going through the course, learners will be able to  |
|                             | <ul style="list-style-type: none"> <li>• Apply techniques of conservation and propagation of medicinal plants</li> </ul>  |
|                             | <ul style="list-style-type: none"> <li>• Setup process of harvesting, drying and storage of medicinal herbs</li> </ul>  |
|                             | <ul style="list-style-type: none"> <li>• Propose new strategies to enhance growth of medicinal herbs</li> </ul>   |
| <b>Module 1 (Credits 1)</b> |   |
| <b>Learning Outcomes</b>    | After learning the module, learners will be able to understand  |
|                             | <ul style="list-style-type: none"> <li>• Know the importance of Medicinal Plants and its conservation</li> </ul>  |
|                             | <ul style="list-style-type: none"> <li>• Identify and document local medicinal plants along with their traditional uses.</li> </ul>   |
| <b>Content Outline</b>      | History, Scope and Importance of Medicinal Plants; polyherbal formulations.<br>Conservation, Augmentation and Ethnobotany and Folk Medicine<br>Conservation of Endemic and endangered medicinal plants,                       |
| <b>Module 2 (Credits 1)</b> |   |
| <b>Learning Outcomes</b>    | <ul style="list-style-type: none"> <li>• The learners will be aware of the various medicinal plants and its application</li> </ul>  |
|                             | <ul style="list-style-type: none"> <li>• Understand the ecological significance and conservation needs of medicinal plant species.</li> </ul>   |
| <b>Content Outline</b>      | Brief description of selected plants and derived drugs, Guggul ( Commiphora), Boswellia, Arjuna (Terminalia arjuna), Turmeric (Curcuma longa), Kutaki (Picrorhiza kurroa), Opium Poppy, Cincona and Artemisia and Podophyllum |

### **Assignments/Activities towards Comprehensive Continuous Evaluation (CCE):**

As part of the Comprehensive Continuous Evaluation (CCE), the course instructor is expected to design activities for each chapter that bridge theoretical knowledge to practical application, emphasizing problem-solving and collaboration. These activities aim to evaluate both theoretical understanding and practical skills, aligning the curriculum with real-world problem scenarios. The evaluation can be done in the following manner External Examination with Theory papers and the practical examination including Product submission, projects, etc. The Internal evaluation should comprise the Unit tests, and continuous Internal evaluation emphasizing practical, Projects, activities, presentations, seminars, workshops, products, assignments and reports.

## References:

1. Akerele, O., Heywood, V. and Synge, H. (1991). The Conservation of Medicinal Plants. Cambridge University Press.
2. AYUSH ([www.indianmedicine.nic.in](http://www.indianmedicine.nic.in)). About the systems—An overview of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy. New Delhi: Department of
3. Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Ministry and Family Welfare, Government of India.
4. CSIR- Central Institute of Medicinal and Aromatic Plants, Lucknow (2016). Aush Gyanya: Handbook of Medicinal and Aromatic Plant Cultivation.
5. Dev, S. (1997). Ethno-therapeutics and modern drug development: The potential of Ayurveda. *Current Science* 73:909–928.
6. Evans, W.C. (2009). Trease and Evans Pharmacognosy, 16th edn. Philadelphia, PA: Elsevier Saunders Ltd.
7. Jain, S.K. and Jain, Vartika. (eds.) (2017). Methods and Approaches in Ethnobotany: Concepts, Practices and Prospects. Deep Publications, Delhi
8. Kapoor, L.D. (2001). Handbook of Ayurvedic medicinal plants. Boca Raton, FL: CRC Press.
9. Saroya, A.S. (2017). Ethnobotany. ICAR publication.
10. Sharma, R. (2003). Medicinal Plants of India-An Encyclopaedia. Delhi: Daya Publishing House.
11. Sharma, R. (2013) Agro Techniques of Medicinal Plants. Daya Publishing House, Delhi.
12. Thakur, R.S., H.S. Puri, and Husain, A. (1989). Major medicinal plants of India. Central Institute of Medicinal and Aromatic Plants, Lucknow, India.

