

**Curriculum**  
**of**  
**Diploma Programme**  
**in**  
**Computer Aided Costume Design & Dress Making**



**State Board of Technical Education (SBTE)**  
**Bihar**

## Semester – IV

### Teaching & Learning Scheme

Board of Study	Course Codes	CourseTitles	Teaching & Learning Scheme (Hours/Week)					
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	Total Credits (C)
			L	T				
	2450401	Advance Pattern Making (kids and ladies)	3	-	4	2	9	6
	2450402	Traditional Costume of India	3	-	4	2	9	6
	2450403	Draping and Grading	3	-	4	2	9	6
	2450404	Computer Illustration -I in fashion Figure	-	-	4	2	6	3
	2450405	Garment Construction -I	-	-	4	2	6	3
	2450406	Design Process and Idea	-	-	4	2	6	3
	2400207	Indian Constitution (Common for All Programmes)	1	-	-	-	1	1
	2400108	Essence of Indian Knowledge System and Tradition (Common for All Programmes)	1	-	-	-	1	1
	2400009	Open Educational Resources (Non-exam course) (FTS, CHE, CSE, EE, ME, ME (Auto), MIE, ELX, AIML, CRE, CACDDM, FPP, GT)	1	-	-	-	1	1
<b>Total</b>			<b>2</b>	<b>-</b>	<b>24</b>	<b>12</b>	<b>48</b>	<b>30</b>

**Legend:**

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem based learning etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term work (includes assignments, seminars, micro projects, industrial visits, any other student activities etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources etc.

C: Credits = (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of teacher to ensure outcome of learning.

### Semester - IV Assessment Scheme

Board of Study	Course Codes	Course Titles	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
	2450401	Advance Pattern Making (kids and ladies)	30	70	20	30	20	30	200
	2450402	Traditional Costume of India	30	70	20	30	20	30	200
	2450403	Draping and Grading	30	70	20	30	20	30	200
	2450404	Computer Illustration -I in fashion Figure	-	-	20	30	20	30	100
	2450405	Garment construction -I	-	-	20	30	20	30	100
	2450406	Design Process and Idea	-	-	20	30	20	30	100
	2400207	Indian Constitution (Common for All Programmes)	25	-	25	-	-	-	50
	2400108	Essence of Indian Knowledge System and Tradition (Common for All Programmes)	25	-	-	-	-	-	25
	2400009	Open Educational Resources	25	-	-	-	-	-	25
<b>Total</b>			<b>165</b>	<b>210</b>	<b>145</b>	<b>180</b>	<b>120</b>	<b>180</b>	<b>1000</b>

**Legend:**

PTA: Progressive Theory Assessment in class room (includes class test, mid-term test and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Term work &amp; Self Learning Assessment (Includes assessment related to student performance in assignments, seminars, micro projects, industrial visits, self-learning, any other student activities etc.)

**Note:** ETA & ELA are to be carried out at the end of the term/ semester.

- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignment, micro project, seminar and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/ presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria of internal as well as external assessment may vary as per the requirement of respective course. For valid and reliable assessment, the internal faculty should prepare checklist & rubrics for these activities.

- A) **Course Code** : 2450401(T2450401/P2450401/S2450401)  
 B) **Course Title** : Advance Pattern Making  
 C) **Pre- requisite Course(s)** : Basic Pattern Making  
 D) **Rationale** :

Advance Pattern Making encompasses a wide range of techniques that go beyond Basic Pattern Making. It involves the creation of precise and detailed patterns that serve as the foundation for producing high-quality and well-fitting garments. It allows for customization and innovation in garment design. It enables designers to translate their creative ideas into practical patterns that can be produced in multiple sizes and variations. It combines technical expertise, creativity, and precision to ensure that garments not only look aesthetically pleasing but also fit well and meet the expectations of consumers. Through this course, it is intended to develop advanced pattern-making abilities in the students.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of the following course outcomes by the learners. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor, and Affective) in classroom/laboratory/workshop/field/ industry.

**After completion of the course, the students will be able to**

**CO-1** Prepare patterns for different style lines, ruched and twisted knot dresses.

**CO-2** Create varied patterns of skirts by manipulating basic skirt sloper.

**CO-3** Create varied patterns of trousers by manipulating basic trouser sloper.

**CO-4** Create patterns for strapless designs using basic bodice sloper.

**CO-5** Grade the patterns into desired sizes using suitable grading techniques.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Program Outcomes (POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/ Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2
CO-1	3	1	2	3	-	-	1	-	-
CO-2	3	1	2	3	-	-	1	-	-
CO-3	3	1	2	3	-	-	1	-	-
CO-4	3	1	2	3	-	-	1	-	-
CO-5	3	1	-	3	-	-	1	-	-

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\* PSOs will be developed by the respective program coordinator at the institute level. As per the latest NBA guidelines, formulating PSOs is optional

\* Various pattern-making tools are used to develop patterns

## G) Teaching &amp; Learning Scheme:

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	Total Credits (C)
			L	T				
FCT	2450401	Advance Pattern Making	03	-	04	02	09	06

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem-based learning, etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field, or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro-projects, industrial visits, any other student activities, etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources, etc.

C: Credits= (1xCIhours) + (0.5xLIhours) + (0.5xNotionalhours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of the teacher to ensure outcome of learning.

## H) Assessment Scheme:

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
FCT	2450401	Advance Pattern Making	30	70	20	30	20	30	200

## Legend:

PTA: Progressive Theory Assessment in classroom (includes class test, mid-term test, and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Term work & Self Learning Assessment (Includes assessment related to student performance in assignments, seminars, micro-projects, industrial visits, self-learning, any other student activities, etc.)

## Note:

- ETA and ELA are to be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignments, micro projects, seminars, and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria for internal as well as external assessment may vary as per the requirement of the respective course. For valid and reliable assessment, the internal faculty should prepare a checklist and rubric for these activities.

I) **Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW) and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to attainment of Course Outcomes (Cos) upon the completion of the course. While curriculum detailing, NEP 2020 related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS) and others must be integrated appropriately.

J) **Theory Session Outcomes (TSOs) and Units: T2450401**

Major Theory Session Outcomes (TSOs)	Units	Relevant Cos Number(s)
<p><i>TSO 1a.</i> Enlist the different types of style lines.</p> <p><i>TSO 1b.</i> Differentiate between panel style line and dart equivalents.</p> <p><i>TSO 1c.</i> Describe the process of preparing the pattern of the classic princess-style line using a basic bodice sloper.</p> <p><i>TSO 1d.</i> Describe the process of preparing the pattern of the armhole princess-style line using a basic bodice sloper.</p> <p><i>TSO 1e.</i> Describe the process of preparing the pattern of the panel style line using a basic bodice sloper.</p> <p><i>TSO 1f.</i> Describe the process of preparing the pattern of the ruched bodice/ one piece.</p> <p><i>TSO 1g.</i> Describe the process of preparing a pattern for a twisted knot dress.</p> <p><i>TSO 1h.</i> Apply patterns for different style lines, ruched and twisted knot dresses for the given sample.</p>	<p><b>Unit-1.0 Style lines, Ruched and Twisted Knot Patterns</b></p> <p>1.1 Stylelines:</p> <ul style="list-style-type: none"> <li>• Classic Princess Styleline</li> <li>• Armhole Princess Styleline</li> <li>• Panel Styleline and its variation</li> </ul> <p>1.2 Ruched Pattern:</p> <ul style="list-style-type: none"> <li>• Ruched Bodice</li> <li>• Ruched One Piece</li> </ul> <p>1.3 Twisted Knot Pattern</p>	CO1
<p><i>TSO 2a.</i> Explain the given skirt sloper variation(s).</p> <p><i>TSO 2b.</i> Select the suitable skirt sloper variation for the given situation.</p> <p><i>TSO 2c.</i> Convert the basic skirt sloper pattern to the given skirt pattern using appropriate manipulation techniques for the given situation.</p>	<p><b>Unit-2.0 Adaption of Skirt Sloper to its Variation</b></p> <p>2.1 Basic Flared Skirt</p> <p>2.2 Skirts with gathered waistline</p> <p>2.3 Gored skirt</p> <p>2.4 Pegged skirt</p> <p>2.5 Skirt with yoke</p> <p>2.6 Tiered skirt</p> <p>2.7 Pleated Skirt</p>	CO2
<p><i>TSO 3a.</i> Differentiate the different various forms of basic trouser sloper.</p> <p><i>TSO 3b.</i> Convert the given basic trouser sloper to an appropriate pant pattern using a suitable manipulation technique.</p>	<p><b>Unit-3.0 Pants /Trousers</b></p> <p>3.1 Flared trouser</p> <p>3.2 Shorts</p> <p>3.3 Palazzo Pants</p> <p>3.4 Culottes</p>	CO3
<p><i>TSO 4a.</i> Explain the given strapless pattern(s).</p> <p><i>TSO 4b.</i> Draft the pattern for the strapless princess top.</p> <p><i>TSO 4c.</i> Draft the pattern for the bra top torso.</p> <p><i>TSO 4d.</i> Draft the pattern for corselet.</p>	<p><b>Unit-4.0 Strapless Patterns</b></p> <p>Strapless Princess Bodice</p> <p>4.1 Bra Top Torso</p> <p>4.2 Corselet</p>	CO4
<p><i>TSO 5a.</i> Define the term Pattern Grading.</p> <p><i>TSO 5b.</i> Write the importance of pattern grading in apparel manufacturing industry.</p>	<p><b>Unit-5.0 Pattern Grading</b></p> <p>5.1 Definition of pattern grading</p>	CO5

Major Theory Session Outcomes (TSOs)	Units	Relevant Cos Number(s)
<p><i>TSO 5c.</i> Explain the given grading terminology(ies).</p> <p><i>TSO 5d.</i> Enlist the cardinal points of bodice and trouser slopers.</p> <p><i>TSO 5e.</i> Explain the given technique(s) of grading.</p> <p><i>TSO 5f.</i> Explain the given method used for manual pattern grading.</p> <p><i>TSO 5g.</i> Write the advantages and disadvantages of pattern shifting method.</p> <p><i>TSO 5h.</i> Write the advantages and disadvantages of Computer Aided Grading.</p>	<p>5.2 Grading terminology:</p> <ul style="list-style-type: none"> <li>• Grade</li> <li>• Grading</li> <li>• Cardinal points</li> <li>• Base Pattern</li> <li>• Trueing</li> <li>• Size run</li> <li>• Cut &amp; Spread / Cut &amp; Overlap</li> <li>• Pattern Shifting</li> <li>• Suppression grading</li> <li>• Balance</li> <li>• Nested Grading</li> </ul> <p>5.3 Grading techniques:</p> <ul style="list-style-type: none"> <li>• Manual Pattern Grading: Cut and spread method, Pattern shifting method</li> <li>• Computer Aided Grading</li> </ul>	

**Note:** One major TSO may require more than one Theory session/Period.

### K) Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: P2450401

Practical/Lab Session Outcomes (LSOs)	S. No.	Laboratory Experiment/Practical Titles	Relevant Cos Number(s)
<p><i>LSO 1.1.</i> Identify the given stylelines.</p> <p><i>LSO 1.2.</i> Use the appropriate pattern making tools for the given sample.</p> <p><i>LSO 1.3.</i> Manipulate basic bodice sloper to prepare the pattern of given stylelines.</p>	1.	<p>Prepare pattern for given stylelines:</p> <ul style="list-style-type: none"> <li>• Classic Princess Styleline</li> <li>• Armhole Princess Styleline</li> <li>• Panel Styleline and its variation</li> </ul>	CO1
<p><i>LSO 2.1.</i> Identify the given ruched bodice/ one piece.</p> <p><i>LSO 2.2.</i> Use the appropriate pattern making tools for the given sample.</p> <p><i>LSO 2.3.</i> Manipulate basic bodice sloper to prepare the ruched pattern.</p>	2.	Prepare pattern for ruched bodice/ one piece.	CO1
<p><i>LSO 3.1</i> Identify the given twisted knot pattern.</p> <p><i>LSO 3.2</i> Use the appropriate pattern making tools for the given sample.</p> <p><i>LSO 3.3</i> Manipulate basic bodice sloper to prepare the twisted knot pattern.</p>	3.	Draft twisted knot pattern.	CO1
<p><i>LSO 4.1.</i> Identify the given skirt pattern.</p> <p><i>LSO 4.2.</i> Use the appropriate pattern making tools for the given sample.</p> <p><i>LSO 4.3.</i> Manipulate the basic skirt sloper to prepare the given skirt pattern.</p>	4.	<p>Draft the given skirt pattern:</p> <ul style="list-style-type: none"> <li>• Basic Flared skirt</li> <li>• Skirts with gathered waistline</li> <li>• Gored skirt</li> <li>• Pegged skirt</li> <li>• Skirt with yoke</li> <li>• Tiered skirt</li> <li>• Pleated Skirt</li> </ul>	CO2
<p><i>LSO 5.1.</i> Identify the given type of trouser.</p> <p><i>LSO 5.2.</i> Use the appropriate pattern making tools for the given sample.</p>	5.	<p>Prepare the pattern of following:</p> <ul style="list-style-type: none"> <li>• Flared Trouser</li> <li>• Shorts</li> <li>• Plazzo Pants</li> </ul>	CO3

Practical/Lab Session Outcomes (LSOs)	S. No.	Laboratory Experiment/Practical Titles	Relevant Cos Number(s)
LSO 5.3. Use the basic trouser sloper to prepare the pattern of given trouser variations.		<ul style="list-style-type: none"> <li>Cullottes</li> </ul>	
LSO 6.1. Identify the given type of strapless design. LSO 6.2. Use the appropriate pattern making tools for the given sample. LSO 6.3. Manipulate the given basic bodice sloper to prepare the pattern of given strapless designs.	6.	Prepare the pattern of following strapless designs: <ul style="list-style-type: none"> <li>Strapless bodice</li> <li>Bra Top Torso</li> <li>Corselet</li> </ul>	CO4
LSO 7.1. Use the techniques of manual pattern grading to increase/ decrease the pattern size.	7.	Grade the given pattern manually using appropriate method.	CO5
LSO 8.1. Use CAD software to grade the given pattern.	8.	Grade the given pattern using CAD software.	CO5

L) **Suggested Term Work and Self Learning: S2450401** Some sample suggested assignments, micro project and other activities are mentioned here for reference.

a. **Assignments:** Prepare a portfolio file of patterns mentioned in Unit 1, 2,3,4,5.

b. **Micro Projects:**

- Create a variation of twisted knot pattern for sustainable fabrics.
- Develop a new pattern of skirt (other than mentioned in Unit 3)
- Design a trouser using biodegradable fabrics.
- Compare any pattern styles with ancient Indian forms.

c. **Other Activities:**

- Seminar Topics:
  - Pattern Grading Using CAD.
  - Compare the Indigenous pattern styles with the world practices.
- Visits: Visit to nearby apparel manufacturing unit to explore the industrial methods of pattern making. Prepare as report as per the prescribed format.

M) **Suggested Course Evaluation Matrix:** The course teacher has to decide and use appropriate assessment strategy and its weightage in theory, laboratory and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

Cos	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test	End Theory Assessment (ETA)	Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
Assignments			Micro Projects	Other Activities*			
CO-1	12%	12%	12%	20%	20%	30%	20%
CO-2	30%	30%	30%	20%	20%	15%	20%
CO-3	20%	20%	20%	20%	20%	15%	20%
CO-4	30%	30%	30%	20%	20%	15%	20%
CO-5	8%	8%	8%	20%	20%	25%	20%
<b>Total Marks</b>	<b>30</b>	<b>70</b>	<b>20</b>	<b>20</b>	<b>10</b>	<b>20</b>	<b>30</b>
			<b>50</b>				

**Legend:**

\*: Other Activities include self- learning, seminar, visits, surveys, product development, software development etc.

\*\*: Mentioned under point- (N)

#: Mentioned under point-(O)

**Note:**

- The percentage given are approximate
- In case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided in all those Cos mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises of questions related to achievement of each Cos?

**N) Suggested Specification Table for End Semester Theory Assessment:** Specification table represents the reflection of sample representation of assessment of cognitive domain of full course.

Unit Title and Number	Total Classroom Instruction (CI) Hours	Relevant Cos Number(s)	Total Marks	ETA (Marks)		
				Remember <sup>®</sup>	Understanding (U)	Application & above (A)
<b>Unit-1.0</b> Stylelines, Ruched and Twisted Knot Patterns	8	CO1	10	2	3	5
<b>Unit-2.0</b> Adoption of Skirt Sloper to its variation	12	CO2	20	6	5	9
<b>Unit-3.0</b> Adoption of Trouser Sloper to its variation	10	CO3	14	4	4	6
<b>Unit-4.0</b> Strapless Patterns	12	CO4	20	6	5	9
<b>Unit-5.0</b> Pattern Grading	6	CO5	6	2	2	2
<b>Total</b>	<b>48</b>	<b>-</b>	<b>70</b>	<b>20</b>	<b>19</b>	<b>31</b>

**Note:** Similar table can also be used to design class/mid-term/ internal question paper for progressive assessment.

**O) Suggested Assessment Table for Laboratory (Practical):**

S. No.	Laboratory Practical Titles	Relevant Cos Number(s)	PLA/ELA		
			Performance		Viva-Voce (%)
			PRA* (%)	PDA** (%)	
1.	Prepare pattern for given stylelines: <ul style="list-style-type: none"> <li>• Classic Princess Styleline</li> <li>• Armhole Princess Styleline</li> <li>• Panel Styleline and its variation</li> </ul>	CO1	30	60	10
2.	Prepare pattern for ruched bodice/ one piece.	CO1	40	50	10
3.	Draft twisted knot pattern.	CO1	50	40	10
4.	Draft the given skirt pattern: <ul style="list-style-type: none"> <li>• Basic Flared skirt</li> <li>• Skirts with gathered waistline</li> <li>• Gored skirt</li> <li>• Pegged skirt</li> <li>• Skirt with yoke</li> <li>• Tiered skirt</li> <li>• Pleated Skirt</li> </ul>	CO2	50	40	10
5.	Prepare the pattern of following: <ul style="list-style-type: none"> <li>• Flared Trouser</li> <li>• Shorts</li> </ul>	CO3	50	40	10

S. No.	Laboratory Practical Titles	Relevant Cos Number(s)	PLA/ELA		
			Performance		Viva-Voce (%)
			PRA* (%)	PDA** (%)	
	<ul style="list-style-type: none"> <li>Plazzo Pants</li> <li>Cullottes</li> </ul>				
6.	Grade the given pattern manually using appropriate method.	CO5	50	40	10
7.	Grade the given pattern using CAD software.	CO5	50	40	10

**Legend:**

PRA\*: Process Assessment

PDA\*\*: Product Assessment

**Note:** This table can be used for both end semester as well as progressive assessment of practical. Rubrics need to be prepared by the course teacher for each experiment/practical to assess the student performance.

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lecture, Tutorial, Case Method, Group Discussion, Industrial visits, Industrial Training, Field Trips, Portfolio Based, Learning, Role Play, Live Demonstrations in Classrooms, Lab, Field Information and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software:**

S. No	Name of Equipment & Tools	Broad Specifications	Relevant Experiment/Practical Number
1.	Pattern cutting table	Height- 3 feet, Size- 2400X1200X900MM	All
2.	Pattern Maker Fashion Designing Ruler and Multi-Purpose Marking Curve	43X19cm, Thickness- 3mm	All
3.	French Curve with cm markings	--	All
4.	24 " Hip Curve Ruler	Dimensions- 600 x 40 x 5 mm Graduation Range 0-24 Inches	5
5.	Leg Curve Ruler	Dimensions – 750 x 40 x 5 mm, Graduation Range 0-30 Inches	5
6.	L Scale	14X24 inches	1, 2, 3, 4, 5, 6
7.	Tailor's Scissors	11" anti rust stainless steel scissors with alloy steel blade material	All
8.	Measuring Tape	60 inches long	All
9.	Pattern Paper/ Brown Paper		All

**R) Suggested Learning Resources:****(a) Books:**

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	Pattern Making for Fashion Design	Helen Joseph Armstrong	Pearson, 2014, Fifth edition ISBN: 978-93-325-1811-7
2.	Basic Pattern Making in Fashion	Lucia Mors	Taschen, 2009 ISBN: 3836517213, 978-3836517218
3.	Principles of Flat Pattern Design	Nora M. Mac Donald	Fairchild Publications, 4 <sup>th</sup> Edition, 2019 ISBN: 9781501353529
4.	Patternmaking: A Comprehensive Reference for Fashion Design	Sylvia Rosen	Pearson, 2004 ISBN: 978-0130262431
5.	Pattern Making by the Flat Pattern Method	Norma. R. Hollen, Carolyn. J. Kundel	Pearson, 8 <sup>th</sup> edition, 1998 ISBN: 978-0139380938
6.	Concepts of Pattern Grading	Kathy K Mullet	Bloomsberry Publishing 9781501312823

**(b) Online Educational Resources:**

1. [www.fiber2fashion.com](http://www.fiber2fashion.com)
2. [www.onlineclothingstudy.com](http://www.onlineclothingstudy.com)
3. <https://www.youtube.com/watch?v=PNJPumNwysw>
4. <https://www.youtube.com/watch?v=zCm4hkGBMZo>
5. <https://www.youtube.com/watch?v=7RcNC6JNOrU>
6. [https://www.youtube.com/watch?v=V\\_OqYvi4aEk](https://www.youtube.com/watch?v=V_OqYvi4aEk)
7. <https://www.youtube.com/watch?v=M6HwZNVORQI>
8. <https://www.youtube.com/watch?v=pYTa-K2kLDs>
9. <https://www.youtube.com/watch?v=pYTa-K2kLDs>

**Note:** Teachers are requested to check the creative commons license status/ financial implications of the suggested, online educational recourses before use by the students.

\*\*\*\*\*

- A) **Course Code** : 2450404(P2450404/S2450404)
- B) **Course Title** : Computer Illustration -I in Fashion Figure (CACDDM)
- C) **Pre-requisite Course(s)** :
- D) **Rationale** :

Diploma students work as designers and technicians in the clothing industry and implement the skills of garment designing using various graphic software. It saves time, permits easy modifications, allows repeatability, enhances creativity, and promotes a fashion product on a global platform. This course in Fashion Figure is designed to equip students with the essential skills and knowledge required to create fashion illustrations using computer software. It aims to develop students' artistic abilities and digital skills, enabling them to produce professional-quality fashion figures and designs. This course also covers the use of graphic software like Corel Draw for illustrating textile prints, garment elements, and textures in garment design.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of the following course outcomes by the learners. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor, and Affective) in classroom/laboratory/workshop/field/ industry.

**After completion of the course, the students will be able to**

**CO1** - Apply the Corel Draw tools to illustrate textile prints, garment elements, and textures in garment designing.

**CO2** - Develop croquis kit with clothing categories considering fashion forecasting.

**CO3** - Create garment trimmings and fonts for typography using the brushes.

**CO4** - Develop silhouettes and flat sketches for clothing categories.

**CO5** - Make advertisements for print media using logos and Unique Selling Property for product promotion.

**CO6** - Enhance garment designing with tools such as brushes, garment library, and accessories.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Programme Outcomes (POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/development of solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and environment	PO-6 Project Management	PO-7 Lifelong learning	PSO-1	PSO-2
CO-1	3	-	-	3	1	-	2		
CO-2	2	-	2	3	2	-	2		
CO-3	2	-	2	3	-	-	-		
CO-4	2	-	2	3	-	-	-		
CO-5	3	-	2	3	2	-	2		
CO-6	2	-	-	3	-	-	-		

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\* PSOs will be developed by the respective program coordinator at the institute level. As per the latest NBA guidelines, formulating PSOs is optional

## G) Teaching &amp; Learning Scheme:

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					Total Credits (C)
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	
			L	T				
	2450404	Computer Illustration -I in fashion Figure	-	-	04	02	06	03

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem-based learning, etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field, or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro-projects, industrial visits, any other student activities, etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources, etc.

C: Credits= (1xCIhours) + (0.5xLIhours) + (0.5xNotionalhours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of the teacher to ensure outcome of learning.

## H) Assessment Scheme:

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
	2450404	Computer Illustration -I in fashion Figure	-	-	20	30	20	30	100

## Legend:

PTA: Progressive Theory Assessment in the classroom (includes class test, mid-term test, and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (including assessment)

TWA: Term work & Self-Learning Assessment (Includes assessment related to student performance in assignments, seminars, microprojects, industrial visits, self-learning, any other student activities, etc.

## Note:

- ETA & ELA are to be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignments, micro-projects, seminars, and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria for internal as well as external assessment may vary as per the requirement of the respective course. For valid and reliable assessment, the internal faculty should prepare a checklist & and rubric for these activities.

**I) Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW), and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to the attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP2020-related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS), and others must be integrated appropriately.

**J) Theory Session Outcomes (TSOs) and Units: (Not Applicable)**

**K) Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: P2450404**

Practical/Lab Session Outcomes (LSOs)	S. No	Laboratory Experiment/Practical Titles	Relevant Cos Number(s)
LSO1.1 Identify the tools for the given operation(s) to be performed. LSO1.2 Identify the interface for the given sample. LSO1.3 Identify the shortcut keys for the given software. LSO1.4 Operate the given graphics software and develop the given illustration.	1.	Interfacing and practicing of CorelDraw, Illustrator tools <ul style="list-style-type: none"> <li>• Getting Started</li> <li>• Moving Around and Viewing Drawings</li> <li>• Customizing Options</li> <li>• Drawing and Shaping Objects</li> <li>• Selecting &amp; Manipulating Objects</li> <li>• Transforming Objects</li> <li>• Outlining &amp; Filling Objects</li> <li>• Arranging Objects</li> <li>• Using Layers</li> <li>• Special Effects</li> <li>• Working with Text</li> <li>• Using Symbols and Clipart</li> <li>• Draw, Select, Navigate, and modify tools of Illustrator</li> </ul>	<b>CO1</b>
LSO2.1 Identify the given element(s) of costumes. LSO2.2 Identify the element required in the given sample. LSO2.3 Identify the appropriate tools for the element. LSO2.4 Make the given garment elements using the given graphic software.	2.	Make the following elements of costumes as per the requirements using the given software. (Minimum Two Designs each) <ul style="list-style-type: none"> <li>• Necklines</li> <li>• Sleeves</li> <li>• Collar</li> <li>• Pockets</li> </ul>	<b>CO2</b>
LSO 3.1 Identify the motif suitable for the given sample. LSO 3.2 Identify the given motif(s) with repeats for textile prints. LSO 3.3 Identify the appropriate graphic drawing tool(s) for the given motif(s) and print(s). LSO 3.4 Identify the appropriate coloring tool(s) for the given motif(s) and print(s). LSO 3.5 Develop the given motif(s) and textile print(s) with drawing and coloring tools using the given graphic software.	3.	Create Motif(s) with any two following inspirations. <ul style="list-style-type: none"> <li>• Repeats (Block, Brick, Step, Full drop, Half drop)</li> <li>• Textile prints with repeats (Minimum one)</li> <li>• Geometrical Print/Conversational print</li> <li>• Fabric from Swatch. (Minimum one): Floral/Ethnic.</li> </ul>	<b>CO2</b>
LSO 4.1. Identify the appropriate texture(s) required in the given Fashion Illustration.	4.	Create the following textures -effects. (Minimum Two) <ul style="list-style-type: none"> <li>• Bandhej / Batik</li> </ul>	<b>CO3</b>

Practical/Lab Session Outcomes (LSOs)	S. No	Laboratory Experiment/Practical Titles	Relevant Cos Number(s)
<p>LSO 4.2. Select the appropriate Drawing tools for the given Texture(s).</p> <p>LSO 4.3. Use the Coloring Tools for the given effects.</p> <p>LSO 4.4. Develop the textures required for the given Fashion Illustration using the graphic software.</p>	.	<ul style="list-style-type: none"> <li>• Fur / Velvete</li> <li>• Transparency</li> <li>• Jeans/ Corduroy</li> <li>• Shirring</li> <li>• Brocade</li> <li>• Embroidery</li> </ul>	
<p>LSO 5.1 Identify the given type(s) of Silhouettes.</p> <p>LSO 5.2 Identify the suitable silhouette for the given sample.</p> <p>LSO 5.3 Select the appropriate for developing the given silhouette sample.</p> <p>LSO 5.4 Select appropriate process parameters for the given silhouette sample.</p> <p>LSO 5.5 Develop the given silhouettes using the given graphic software.</p>	5.	<p>Develop the following types of fashion silhouettes. (Minimum Four Each)</p> <ul style="list-style-type: none"> <li>• Triangle</li> <li>• Inverted triangle</li> <li>• Rectangle</li> <li>• Hourglass</li> <li>• Ample</li> <li>• Wedge</li> <li>• Trapeze</li> <li>• Bell</li> <li>• Trumpet</li> <li>• Egg</li> <li>• A-line</li> <li>• Sheath</li> </ul>	<b>CO4</b>
<p>LSO 6.1. Read the given body proportions.</p> <p>LSO 6.2. Construct fashion figures of all types for the given sample with body proportion specifications using the given graphic software</p>	6.	<p>Create a front view of the following Fleshed Croque with proportions. (Minimum One each).</p> <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> <li>• Kid</li> </ul>	<b>CO4</b>
<p>LSO 7.1 Identify the given clothing category(ies).</p> <p>LSO 7.2 Identify the given theme(s).</p> <p>LSO 7.3 Identify the suitable designs for the given theme(s).</p> <p>LSO 7.4 Identify the process parameters for the given drawing.</p> <p>LSO 7.5 Design the given wardrobe with drawing, gradient &amp; and fill tools of the graphic software.</p>	7.	<p>Prepare your wardrobe using the following clothing category. (Consider the following points).</p> <ul style="list-style-type: none"> <li>• Fashion forecasting trends.</li> <li>• Themes with Sustainable Designs.</li> </ul>	<b>CO4</b>
<p>LSO 8.1 Identify the requirements of the given Flats and Specs Sheet.</p> <p>LSO 8.2 Identify the flowchart for making the given Flats and specs.</p> <p>LSO 8.3 Use the given software for developing flats &amp; and spec sheets.</p>	8.	<p>Develop a Tech pack for the following wardrobe collection. (Consider Sr. No-7 Laboratory Experiment)</p> <ul style="list-style-type: none"> <li>• Garment View with Structural Lines</li> <li>• Print/ ornamentation on garment</li> <li>• Trimmings of Garment</li> </ul>	<b>CO4</b>
<p>LSO 9.1 Identify the suitable promotion tools for the given product.</p> <p>LSO 9.2 Identify the appropriate tool for the given sample.</p> <p>LSO 9.3 Identify the Unique selling point for product promotion for the given sample.</p> <p>LSO 9.4 Identify the print media for the given sample.</p>	9.	<p>Create an advertisement for marketing the product through the following print media highlighting a unique selling proposition (USP). (Minimum One)</p> <ul style="list-style-type: none"> <li>• Flyers</li> <li>• Coupons</li> <li>• Posters</li> </ul>	<b>CO5</b>

Practical/Lab Session Outcomes (LSOs)	S. No	Laboratory Experiment/Practical Titles	Relevant Cos Number(s)
LSO 9.5 Design print media with a unique selling point for the promotion of the given sample.	.	<ul style="list-style-type: none"> <li>Magazine cover page</li> </ul>	
LSO 10.1 Identify the appropriate brushes and usage for the given Zipper(s), Button(s), Seam line(s), Ruffle(s), and Lace(s). LSO 10.2 Identify the appropriate brushes for the given sample LSO 10.3 Make the given garment trimmings using a suitable brush(es)	10.	Use brushes to create the following garment trimmings. (Minimum One each) <ul style="list-style-type: none"> <li>Zippers / Buttons</li> <li>Ruffles/ Laces.</li> </ul>	CO6
LSO 11.1 Identify the tools for the given Garment Element Library. LSO 11.2 Create Garment Element Library	11.	Create the following Garment Element Library (Minimum One each) <ul style="list-style-type: none"> <li>Skirt</li> <li>Top</li> <li>Trouser</li> <li>Jacket.</li> </ul>	CO6
LSO 12.1 Identify tools for the given Logo Development. LSO 12.2 Identify the different types of logos. LSO 12.3 Design an appropriate logo for the given sample. LSO 12.4 Implement the designed logo for the given garment.	12.	Develop logos of different brands & implement any one on the given T-shirt.	CO6
LSO 13.1 Identify the given type(s) of fashion accessories. LSO 13.2 Identify the appropriate fashion accessory for the given assignment. LSO 13.3 Design an appropriate fashion accessory for the given assignment. LSO 13.4 Prepare the given library of accessories.	13.	Design the following Fashion accessories. (Minimum Two) <ul style="list-style-type: none"> <li>Belt</li> <li>Head Gear/ Caps/ Hats</li> <li>Foot Wear</li> <li>Purses/ Bags/ Clutches</li> </ul> 13.1.5 Jewelry	CO1, CO2, CO3, CO4, CO5, CO6
LSO 14.1 Enhance the visual emphasis of the given fonts. LSO 14.2 Create a Typography with different themes for the given sample.	14.	Prepare a Typography using the given theme.	CO1, CO2, CO3, CO4, CO5, CO6
LSO 15.1 Identify the process parameters for the given presentation. LSO 15.2 Communicate Garment designs through the presentation.	15.	Make One presentation with a suitable template. (Refer to Laboratory Experiments 7 & 11) <ul style="list-style-type: none"> <li>Margins, Page Composition.</li> <li>Orientation, Colors</li> <li>Border, Fonts</li> <li>Page background, Themes.</li> </ul>	CO1, CO2, CO3, CO4, CO5, CO6
LSO 16.1 Identify the given Fashion pose(s). LSO 16.2 Visualize the Fashion pose(s) for the given sample. LSO 16.3 Create the visualized pose digitally for the given sample. LSO 16.4 Create a library of two Croquis with 3/4, Profile, and Rear view.	16.	16.1 Develop the following stylized poses or stick sketches. (Minimum One) <ul style="list-style-type: none"> <li>16.1.1 Glamour</li> <li>16.1.2 Dramatic</li> <li>16.1.3 Freedom</li> <li>16.1.4 Arc figure</li> </ul>	CO1, CO2, CO3, CO4, CO5, CO6

L) **Suggested Term Work and Self-Learning: S2450404** Some sample suggested assignments, micro-projects, and other activities are mentioned here for reference.

**a. Assignments:**

- Explore the history of fashion illustration and the transition to digital mediums.
- Discuss the impact of technology on fashion illustration and its relevance in the modern fashion industry.
- Anatomy and Proportions in Fashion Figure Drawing.
- Discuss proportion guidelines and techniques for achieving balanced and realistic fashion figures.
- Creating Dynamic Poses in Fashion Illustration.
- Explore various techniques to create dynamic and expressive poses in fashion illustration.
- Address the importance of inclusivity in fashion illustration.
- Incorporating Textures and Fabrics in Fashion Illustration.
- Enhancing Fashion Illustrations with Digital Effects.
- Discuss using digital effects, filters, and overlays to enhance fashion illustrations.
- Color Psychology and its Application in Fashion Illustration.
- Explore color schemes and their use to convey emotions and enhance storytelling in illustrations.
- Discuss presentation techniques and strategies for showcasing illustrations effectively.

**b. Micro Projects:**

- Fashion Illustration Portfolio Development.
- Research different types of fabrics and their textures commonly used in fashion design.
- Explore online tutorials, video courses, or documentation to learn the essential tools and features of the chosen software.
- Research different styles of fashion illustration, such as realistic, minimalist, or whimsical, to discover your preferences.
- Study the works of renowned fashion illustrators and analyze their techniques and approaches.
- Experiment with different lighting scenarios and observe how they affect the overall mood and visual impact of your illustrations.

**c. Other Activities:**

1. Seminar Topics:

- Evolution of Fashion Illustration: From Traditional to Digital.
- Industry Insights and Career Opportunities in Fashion Illustration.
- Discuss industry trends, market demands, and the role of technology in fashion illustration.

2. Visits: Visit nearby industry/design houses which use computer-aided fashion illustrations. Prepare a report of the visit with special comments on software and tools illustrations done, formats of files, and end use of the same.

3. Self-learning topics:

- Draw the toolbar of Illustrator
- Making different Pockets using software
- Fabric from Swatch: Floral
- Creating Shirring-type texture effects
- Creating a bell-type fashion silhouette
- Making Flyers

**M) Suggested Course Evaluation Matrix:** The course teacher has to decide and use the appropriate assessment strategy and its weightage in theory, laboratory, and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

COs	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test		Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
Assignments			Micro Projects	Other Activities*			
CO-1	-	-	20%	-	-	20%	16%
CO-2	-	-	15%	25%	25%	20%	16%
CO-3	-	-	15%	25%	25%	15%	17%
CO-4	-	-	20%	25%	25%	15%	17%
CO-5	-	-	20%	25%	25%	15%	17%
CO-6	-	--	10%	-	-	15%	17%
<b>Total Marks</b>	-	-	<b>20</b>	<b>20</b>	<b>10</b>	<b>20</b>	<b>30</b>
			<b>50</b>				

**Legend:**

\*: Other Activities include self-learning, seminar, visits, surveys, product development, software development etc.

\*\* : Mentioned under point- (N)

#: Mentioned under point-(O)

**Note:**

- The percentage given are approximate
- In case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided in all those COs mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises of questions related to achievement of each COs.

**N) Suggested Specification Table for End Semester Theory Assessment: (Not Applicable)**

**O) Suggested Assessment Table for Laboratory (Practical):**

S. No.	Laboratory Practical Titles	Relevant COs Number (s)	PLA/ELA		
			Performance		Viva-Voce (%)
			PRA* (%)	PDA** (%)	
1.	Practicing of Coreldraw & Illustrator tools and Interface. <ul style="list-style-type: none"> <li>▪ Getting Started</li> <li>▪ Moving Around and Viewing Drawings</li> <li>▪ Customizing Options</li> <li>▪ Drawing and Shaping Objects</li> <li>▪ Selecting &amp; Manipulating Objects</li> <li>▪ Transforming Objects</li> <li>▪ Outlining &amp; Filling Objects</li> <li>▪ Arranging Objects</li> <li>▪ Using Layers</li> <li>• Special Effects</li> <li>• Working with Text</li> <li>• Using Symbols and Clipart</li> <li>• Draw, Select, Navigate, &amp; Modify tools of Illustrator</li> </ul>	CO1	30	60	10
2.	Make the following elements of costumes as per the requirements using the given software. (Minimum Two Designs each) <ul style="list-style-type: none"> <li>• Necklines</li> <li>• Sleeves</li> <li>• Collar</li> </ul>	CO2	40	50	10

S. No.	Laboratory Practical Titles	Relevant COs Number (s)	PLA/ELA		Viva-Voce (%)
			Performance		
			PRA* (%)	PDA** (%)	
	<ul style="list-style-type: none"> <li>• Pockets</li> </ul>				
3.	Create Motif(s) with any two following inspirations. <ul style="list-style-type: none"> <li>▪ Repeats (Block, Brick, Step, Full drop, Half drop)</li> <li>▪ Textile prints with repeats (Minimum one)</li> <li>▪ Geometrical Print/Conversational print</li> <li>▪ Fabric from Swatch. (Minimum one): Floral/Ethnic.</li> </ul>	CO2	30	60	10
4.	Create the following textures -effects. (Minimum Two) <ul style="list-style-type: none"> <li>▪ Bandhej / Batik</li> <li>▪ Fur / Velvete</li> <li>▪ Transparency</li> <li>▪ Jeans/ Corduroy</li> <li>▪ Shirring</li> <li>▪ Brocade</li> <li>▪ Embroidery</li> </ul>	CO3	30	60	10
5.	Develop the following types of fashion silhouettes. (Minimum Four Each) <ul style="list-style-type: none"> <li>▪ Triangle</li> <li>▪ Inverted triangle</li> <li>▪ Rectangle</li> <li>▪ Hourglass</li> <li>▪ Ample</li> <li>▪ Wedge</li> <li>▪ Trapeze</li> <li>▪ Bell</li> <li>▪ Trumpet</li> <li>▪ Egg</li> <li>▪ A-line</li> <li>▪ Sheath</li> </ul>	CO4	30	60	10
6.	Create front-view of the following Fleshed Croque with proportions. (Minimum One each). <ul style="list-style-type: none"> <li>▪ Male</li> <li>▪ Female</li> <li>▪ Kid</li> </ul>	CO2	30	60	10
7.	Prepare wardrobe using the following clothing category. (Consider the following points). <ul style="list-style-type: none"> <li>▪ Fashion forecasting trends.</li> <li>▪ Themes with Sustainable Designs.</li> </ul>	CO2	30	60	10
8.	Develop Tech pack for the following wardrobe collection. (Consider Sr. No-7 Laboratory Experiment) <ul style="list-style-type: none"> <li>▪ Garment View with Structural Lines</li> <li>▪ Print/ ornamentation on garment</li> <li>▪ Trimmings of Garment</li> </ul>	CO2	40	50	10
9.	Create advertisement for marketing of product through following print media highlighting unique selling proposition (USP). (Minimum One) <ul style="list-style-type: none"> <li>▪ Flyers</li> <li>▪ Coupons</li> <li>▪ Posters</li> <li>▪ Magazine cover page</li> </ul>	CO5	40	50	10

S. No.	Laboratory Practical Titles	Relevant COs Number (s)	PLA/ELA		Viva-Voce (%)
			Performance		
			PRA* (%)	PDA** (%)	
10.	Use brushes to create the following garment trimmings. (Minimum One each) <ul style="list-style-type: none"> <li>▪ Zippers / Buttons</li> <li>▪ Ruffles/ Laces.</li> </ul>	CO6	40	50	10
11.	Create the following Garment Element Library (Minimum One each) <ul style="list-style-type: none"> <li>▪ Skirt</li> <li>▪ Top</li> <li>▪ Trouser</li> <li>▪ Jacket.</li> </ul>	CO6	30	60	10
12.	Develop logos of different brands & implement any one on the given T-shirt.	CO6	40	50	10
13.	Design the following Fashion accessories. (Minimum Two) <ul style="list-style-type: none"> <li>▪ Belt</li> <li>▪ Head Gear/ Caps/ Hats</li> <li>▪ Foot Wear</li> <li>▪ Purses/ Bags/ Clutches</li> <li>▪ Jewelry</li> </ul>	CO1, CO2, CO3, CO4, CO5, CO6	40	50	10
14.	Prepare Typography using the given theme.	CO1, CO2, CO3, CO4, CO5, CO6	40	50	10
15.	Make One presentation with a suitable template. (Refer Laboratory Experiment 7 & 11) <ul style="list-style-type: none"> <li>▪ Margins, Page Composition.</li> <li>▪ Orientation, Colors</li> <li>▪ Border, Fonts</li> <li>▪ Page background, Themes.</li> </ul>	CO1, CO2, CO3, CO4, CO5, CO6	40	50	10
16.	16.1 Develop the following stylize poses or stick sketches. (Minimum One) <ul style="list-style-type: none"> <li>▪ Glamour</li> <li>▪ Dramatic</li> <li>▪ Freedom</li> <li>▪ Arc figure</li> </ul>	CO1, CO2, CO3, CO4, CO5, CO6	40	50	10

**Legend:**

PRA\*: Process Assessment

PDA\*\*: Product Assessment

**Note:** This table can be used for both end semester as well as progressive assessment of practicals. Rubrics need to be prepared by the course teacher for each experiment/practical to assess the student's performance.

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lectures, Tutorials, Case Methods, Group Discussion, Industrial visits, Industrial Training, Field Trips, Portfolios, Learning, Role Play, Live Demonstrations in Classrooms, Labs, Field Information and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software:**

S. No.	Name of Equipment, Tools and Software	Broad Specifications	Relevant Experiment/Practical Number
1.	High-end computers	System requirement- Desktop 32GB DDR4 RAM   1TB SSD, Windows 10 64 bits onwards 7th Gen Intel Core i7 6700 3.4Ghz   8MB, Support 4K (3840x2160) Dual display, EPYC, 1280*720 SCREEN RESOLUTION AT 100% (96 dpi) Keyboard, mouse (any).	All
2.	CorelDRAW	CorelDraw Subscription License, Complete suite of professional graphics & applications, Graphics and illustrations, photo editing, page layout, and typography. Software latest version.2023 (System Setup required for the software)- An Internet connection is required to install and authenticate the CorelDraw Graphics suite and access some of the included software components, online features, and content.	1-10
3.	Illustrator	Illustrator latest version OR Illustrator 28.0- Creative Cloud.	11,12,13,14,15,16
4.	A3 Scanners and Color Printers	System requirement- All-in-one LaserJet printer--wireless all-in-one printer features print, copy, scan, and fax versatility, fast print speeds—up to 22 ppm, automatic two-sided printing, and a 50-page automatic document feeder. Color Screen	11,12,13,14,15,16

**R) Suggested Learning Resources:****(a) Books:**

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	Corel Draw Wow Book	Linnea Dayton, Shan Hunt & Sharon Stever	Desktop Publishing ISBN 0-201-88632-4
2.	Corel Draw	L.P.Editorial Board	Law point Publication ASIN: B00RXALYV4
3.	Fashion Designer's Handbook for Adobe Illustrator	Marianne Centner	John Wiley and Sons 1st edition 1 March 2007 ISBN-10:1405160551 ISBN-13:978-1405160551
4.	Illustrator CS6 in Simple Steps Paperback	Kogent Learning solution	Dreamtech Press ISBN-10:9350045966 ISBN-13:978-9350045961
	DT Editorial Services	CorelDRAW 2018 in Simple Step	Linnea Dayton, Shane Hunt. ISBN 13 9789388425254
	Corel Draw Wow Book	Linnea Dayton, Shan Hunt & Sharon Stever	Desktop Publishing ISBN 0-201-88632-4

**(b) Online Educational Resources:**

- [https://www.coreldraw.com/coreldraw/graphicsuite.\(Coreldraw tools\).](https://www.coreldraw.com/coreldraw/graphicsuite.(Coreldraw%20tools).)
- [http://www.creativebloq.com/digital-art/illustrator-tutorials-1232697\(illustrator tools\).](http://www.creativebloq.com/digital-art/illustrator-tutorials-1232697(illustrator%20tools).)
- [https://helpx.adobe.com/illustrator/tutorials.html\(illustrator tools\).](https://helpx.adobe.com/illustrator/tutorials.html(illustrator%20tools).)
- [https://www.coreldraw.com/static/cdgs/pdfs/cdgs/x4/Ariel\\_IFE\\_EN.pdfMesh tool \(Coral Draw\).](https://www.coreldraw.com/static/cdgs/pdfs/cdgs/x4/Ariel_IFE_EN.pdfMesh%20tool(Coral%20Draw).)
- [https://product.corel.com/help/CorelDRAW/540111147/index.html?app=CorelDRAW&lang=en#/11 TOCO \(CORELDRAW HELP\).](https://product.corel.com/help/CorelDRAW/540111147/index.html?app=CorelDRAW&lang=en#/11TOCO(CORELDRAW%20HELP).)
- [https://books.google.co.in/books?id=q-Cv6K761nAC&newbks=1&newbks\\_redir=0&printsec=frontcover&dq=digital](https://books.google.co.in/books?id=q-Cv6K761nAC&newbks=1&newbks_redir=0&printsec=frontcover&dq=digital%20art%20tutorials%20for%20illustrator&pg=PR11(illustrate%20by%20using%20garment%20elements).)
- [https://www.google.com/search?q=illustrate+collars+by+using+coreldraw&sca\\_esv=572820686&ei=psInZajWA\(illustrate by using garment elements\).](https://www.google.com/search?q=illustrate+collars+by+using+coreldraw&sca_esv=572820686&ei=psInZajWA(illustrate%20by%20using%20garment%20elements).)
- [https://coursesity.com/free-tutorials-learn/coreldraw \(Develop textile print\).](https://coursesity.com/free-tutorials-learn/coreldraw(Develop%20textile%20print).)

9. <https://www.coreldraw.com/en/learn/how-to/> Step-by-step written guides on the most common graphic design tasks (CoralDraw).
10. <https://helpx.adobe.com/in/illustrator/system-requirements.html#ai-on-the-desktop>. (Illustrator Help)
11. <https://books.google.co.in/books?id=gV4QAQAAQBAJ&printsec=frontcover&dq=digital+fashion+book+rockpor> (Typography).
12. [https://help.adobe.com/archive/en/illustrator/cs6/illustrator\\_reference.pdf](https://help.adobe.com/archive/en/illustrator/cs6/illustrator_reference.pdf) (Adobe Illustrator-Tool Guide manual).
13. <https://fashinza.com/fashion-designs/design-trends/fashion-figure-sketches-30-poses-to-draw-attention> (Figure Types)
14. <https://product.corel.com/help/CorelDRAW/Documentation-ac/index.html?app=CorelDRAW&lang=en#/l1TOC324> (Corel draw help for tools operation).
15. <https://helpx.adobe.com/in/illustrator/using/tool-techniques/shear-tool.html> (Illustrator help for tools operation).
16. <https://learn.corel.com/wp-content/uploads/2022/03/CDGS2021-UserGuide.pdf> (CorelDraw tutorial).
17. <https://www.coreldraw.com/en/pages/items/17700700.html> (Geometric Fashion Figure - CoralDraw).
18. <https://www.educba.com/coreldraw-logo-design/> (Logo making)

**Note:** Teachers are requested to check the Creative Commons license status/ financial implications of the suggested, online educational recourses before use by the students.

**(c) Others:**

- i. Lab Manuals
- ii. DeviantArt ([www.deviantart.com](http://www.deviantart.com))
- iii. Wet Canvas Fashion Illustration Forum ([www.wetcanvas.com/forums/fashion-illustration](http://www.wetcanvas.com/forums/fashion-illustration))

- A) **Course Code** : 2450402(T2450402/P2450402/S2450402)  
 B) **Course Title** : Traditional Costume of India  
 C) **Pre-requisite Course(s)** :  
 D) **Rationale** :

This course will provide knowledge about Indian Traditional Costumes as it reflects India's rich cultural diversity, heritage, and traditions. It serves as a means of preserving the skill of handcrafted textiles and designs, expressing identity and contributing to both individual and collective cultural pride. This course would cater to the needs of the fashion revolution, fashion leaders, and students to design contemporary garments. After learning this course they can preserve and value these traditions while creating new designs for the local people. They can recreate designs that have traditional value. Students may take inspiration from these designs to create beautiful garments with the same conventional essence that people can easily connect to. Therefore, students should learn the traditional costumes of India and find innovative ideas that can give birth to stunning pieces and make them unique.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of the following course outcomes by the learners. For this, the learners are expected to perform activities related to three learning domains (Cognitive, Psychomotor, and Affective) in the classroom/ laboratory/ workshop/ field/ industry.

**After completion of the course, the students will be able to**

- CO-1 Illustrate the origin, development, and importance of the traditional costume of India.  
 CO-2 Identify materials, methods, and design of traditional costumes of the Northern region of India.  
 CO-3 Identify materials, methods, and design of traditional costumes of the Southern region of India.  
 CO-4 Identify materials, methods, and designs of traditional costumes of the Eastern region of India.  
 CO-5 Identify materials, methods, and designs of traditional costumes of the Western region of India.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Program Outcomes (POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/ Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2
CO-1	3	2	2	2	2	2	3		
CO-2	3	2	2	2	2	2	3		
CO-3	3	2	2	2	2	2	3		
CO-4	3	2	2	2	2	2	3		
CO-5	3	2	2	2	2	2	3		

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\* PSOs will be developed by the respective program coordinator at the institute level. As per the latest NBA guidelines, formulating PSOs is optional

## G) Teaching &amp; Learning Scheme:

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	Total Credits (C)
			L	T				
CACDDM	2450402	Traditional costume of India	03	-	04	02	09	06

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem-based learning, etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field, or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro-projects, industrial visits, any other student activities, etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources, etc.

C: Credits = (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of the teacher to ensure the outcome of learning.

## H) Assessment Scheme:

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
CACDDM	2450402	Traditional Costume of India	30	70	20	30	20	30	200

## Legend:

PTA: Progressive Theory Assessment in the classroom (includes class test, mid-term test, and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Term work & Self Learning Assessment (Includes assessment related to student performance in assignments, seminars, micro-projects, industrial visits, self-learning, any other student activities, etc.)

## Note:

- ETA & ELA will be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignments, micro-projects, seminars, and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria of internal as well as external assessment may vary as per the requirement of the respective course. For valid and reliable assessment, the internal faculty should prepare a checklist & rubrics for these activities.

I) **Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW), and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to the attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP 2020-related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS), and others must be integrated appropriately.

J) **Theory Session Outcomes (TSOs) and Units: T2450402**

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>TSO 1a.</i> Explain the origin and development of traditional costumes of India.</p> <p><i>TSO 1b.</i> Explain the importance of traditional costumes.</p> <p><i>TSO 1c.</i> Describe different theories of clothing.</p> <p><i>TSO1d.</i> Differentiate various theories of clothing.</p>	<p><b>Unit-1.0- Origin of Costumes</b></p> <p>1.1 Origin and development of traditional costumes of India.</p> <p>1.2 Importance of Traditional Costumes</p> <p>1.3 Theories of Clothing</p> <p>1.3.1 Modesty</p> <p>1.3.2 Immodesty</p> <p>1.3.3 Adornment</p> <p>1.3.4 Protection</p>	<b>CO1</b>
<p><i>TSO 2a.</i> Identify different Traditional costumes of the Northern region of India.</p> <p><i>TSO 2b.</i> Describe materials, wearing style, and accessories used in Traditional costumes of the Northern region.</p> <p><i>TSO 2c.</i> Classify various traditional costumes of the Northern region.</p> <p><i>TSO 2d.</i> Apply the knowledge of traditional costumes to create contemporary costumes.</p>	<p><b>Unit-2.0- Traditional Costumes of the Northern Region of India</b></p> <p>2.1 Traditional costumes of Jammu and Kashmir - : Materials, wearing style, and accessories used.</p> <p>2.2 Traditional costumes of Punjab-: Materials, wearing style, and accessories used.</p> <p>2.3 Traditional costumes of Himachal Pradesh-: Materials, wearing style, and accessories used.</p> <p>2.4 Traditional costumes of Uttar Pradesh-: Materials, wearing style, and accessories used.</p>	<b>CO2</b>
<p><i>TSO 3a.</i> Identify different Traditional costumes of the Southern region of India.</p> <p><i>TSO 3b.</i> Describe materials, wearing style, and accessories used in Traditional costumes of the Southern region.</p> <p><i>TSO 3c.</i> Classify various traditional costumes of the Southern region.</p> <p><i>TSO 3d.</i> Apply the knowledge of traditional costumes to create contemporary costumes.</p>	<p><b>Unit-3.0- Traditional Costumes of The Southern Region of India</b></p> <p>3.1. Traditional costumes of Andhra Pradesh-: Materials, wearing style, and accessories used.</p> <p>3.2. Traditional costumes of Tamil Nadu-: Materials, wearing style, and accessories used.</p> <p>3.3. Traditional costumes of Kerala-: Materials, wearing style, and accessories used.</p>	<b>CO3</b>
<p><i>TSO 4a.</i> Identify different Traditional costumes of Eastern region of India.</p> <p><i>TSO 4b.</i> Describe materials, wearing style, and accessories used in Traditional costumes of the Eastern region.</p> <p><i>TSO 4c.</i> Classify various traditional costumes of Eastern region.</p>	<p><b>Unit-4.0- Traditional Costumes of Eastern Region of India</b></p> <p>4.1. Traditional costume of Assam-: Materials, wearing style, and accessories used.</p> <p>4.2. Traditional costume of Manipur-: Materials, wearing style, and accessories used.</p> <p>4.3. Traditional costume of Nagaland-: Materials, wearing style and accessories used</p> <p>4.4. Traditional costume of Mizoram-: Materials, wearing style, and accessories used.</p>	<b>CO4</b>

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<i>TSO 4d.</i> Apply the knowledge of traditional costumes to create contemporary costumes. .	4.5. Traditional costume of West Bengal:- Materials, wearing style, and accessories used. 4.6. Traditional costume of Bihar:- Materials, wearing style, and accessories used. 4.7. Traditional costume of Orissa:- Materials, wearing style, and accessories used.	
<i>TSO 5a.</i> Identify different Traditional costumes of the Western region of India. <i>TSO 5b.</i> Describe materials, wearing style, and accessories used in Traditional costumes of the Western region. <i>TSO 5c.</i> Classify various traditional costumes of the Western region. <i>TSO 5d.</i> Apply the knowledge of traditional costumes to create contemporary costumes.	<b>Unit-5.0-Traditional Costumes of The Western Region of India.</b>  5.1 Traditional costume of Gujarat -: Materials, wearing style, and accessories used. 5.2 Traditional costume of Rajasthan:- Materials, wearing style, and accessories used. 5.3 Traditional costume of Maharashtra and Karnataka -: Materials, wearing style, and accessories used. 5.4 Traditional costume of Madhya Pradesh:- Materials, wearing style, and accessories used.	<b>CO5</b>

**Note:** One major TSO may require more than one Theory session/Period.

#### K) Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: P2450402

Practical/Lab Session Outcomes (LSOs)	S. No.	Laboratory Experiment/Practical Titles	Relevant COs Number(s)
<i>LSO 1.1.</i> Select suitable tools and materials to design traditional costumes of the Northern region. <i>LSO 1.2.</i> Design motifs for traditional costumes of the Northern region. <i>LSO 1.3.</i> Identify fabric for traditional costumes of the Northern region.	1.	Design any one traditional costume of the Northern region of India.	<b>CO2</b>
<i>LSO 2.1.</i> Select suitable tools and materials to design traditional costumes of the Southern region. <i>LSO 2.2.</i> Design motifs for traditional costumes of the Southern region. <i>LSO 2.3.</i> Identify fabric for traditional costumes of the Southern region.	2.	Design any one Traditional costume of the Southern region of India.	<b>CO3</b>
<i>LSO 3.1.</i> Select suitable tools and materials to design traditional costumes of the Eastern region. <i>LSO 3.2.</i> Design motifs for traditional costumes of Eastern region. <i>LSO 3.3.</i> Identify fabric for traditional costumes of Eastern region.	3.	Design any one Traditional costume of Eastern region of India.	<b>CO4</b>
<i>LSO 4.1.</i> Select suitable tools and materials to design traditional costumes of the Western region. <i>LSO 4.2.</i> Design motifs for traditional costumes of the Western region. <i>LSO 4.3.</i> Identify fabric for traditional costumes of the Western region.	4.	Design any one Traditional costume of the Western region of India.	<b>CO5</b>
<i>LSO 5.1.</i> Select suitable tools and materials to design contemporary costumes by taking inspiration from traditional costumes of India.	5.	Design four contemporary costumes by taking inspiration from traditional costumes of India.	<b>All COs</b>

Practical/Lab Session Outcomes (LSOs)	S. No.	Laboratory Experiment/Practical Titles	Relevant COs Number(s)
<p><i>LSO 5.2.</i> Distinguish traditional costumes of various regions of India.</p> <p><i>LSO 5.3.</i> Design contemporary costumes by taking inspiration from traditional costumes of India.</p>			
<p><i>LSO 6.1.</i> Select suitable tools and materials to construct contemporary costumes by taking inspiration from traditional costumes of India.</p> <p><i>LSO 6.2.</i> Identify traditional costumes of various regions of India.</p> <p><i>LSO 6.3.</i> Construct contemporary costumes using a combination of traditional costumes from various regions of India by taking inspiration from traditional costumes of India.</p>	6.	Construct any one contemporary costume by taking inspiration from traditional costumes of India.	All COs

L) **Suggested Term Work and Self-Learning: S2450402** Some sample suggested assignments, micro-projects, and other activities are mentioned here for reference.

a. **Assignments:** Questions/Problems/Numerical/Exercises to be provided by the course teacher in line with the targeted COs.

- I. Make a PowerPoint presentation/chart/collage on traditional costumes of India.
- II. Do a comparative study on the traditional costumes of India of different states.

b. **Micro Projects:**

- Prepare a Chart with a brief explanation of the traditional costumes of India from the Northern Region/Eastern Region/Southern Region/Western Region.
- Prepare a report on traditional costumes of any one state/community of India.
- Prepare a report on differences between traditional costumes of any two states/communities.
- Collect images of different regions of traditional costumes of India.

c. **Other Activities:**

1. Seminar Topics:

- Presentation on Traditional costumes of the Northern region of India
- Presentation on Traditional costumes of the Southern region of India
- Presentation on Traditional costumes of the Eastern region of India
- Presentation on Traditional costumes of the Western region of India

2. Visits: Visit to exhibition of traditional costumes/ mall/State emporium/other such unit etc.

3. Self-learning topics:

- Fabrics used in traditional costumes of different regions of India
- History of traditional costumes of India

**M) Suggested Course Evaluation Matrix:** The course teacher has to decide and use the appropriate assessment strategy and its weightage in theory, laboratory, and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

COs	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test	End Theory Assessment (ETA)	Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
Assignments			Micro Projects	Other Activities*			
CO-1	15%	15%	-	-	-	-	-
CO-2	20%	20%	25%	25%	25%	25%	25%
CO-3	20%	20%	25%	25%	25%	25%	25%
CO-4	25%	25%	25%	25%	25%	25%	25%
CO-5	20%	20%	25%	25%	25%	25%	25%
Total Marks	30	70	20	20	10	20	30
			50				

**Legend:**

\*: Other Activities include self- learning, seminar, visits, surveys, product development, software development etc.

\*\* : Mentioned under point- (N)

# : Mentioned under point-(O)

**Note:**

- The percentage given are approximate
- In case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided in all those COs mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises of questions related to achievement of each COs.

**N) Suggested Specification Table for End Semester Theory Assessment:** Specification table represents the reflection of sample representation of assessment of cognitive domain of full course.

Unit Title and Number	Total Classroom Instruction (CI) Hours	Relevant COs Number(s)	Total Marks	ETA (Marks)		
				Remember (R)	Understanding (U)	Application & above (A)
Unit-1.0 Origin of Costumes	8	CO1	10	4	4	2
Unit-2.0 Traditional Costumes of Northern Region	10	CO2	15	4	4	7
Unit-3.0 Traditional Costumes of Southern Region	10	CO3	15	4	4	7
Unit-4.0 Traditional Costumes of Eastern Region	10	CO4	15	4	4	7
Unit-5.0 Traditional Costumes of the Western Region	10	CO5	15	4	4	7
<b>Total</b>	<b>48</b>	<b>-</b>	<b>70</b>	<b>20</b>	<b>20</b>	<b>30</b>

**Note:** Similar table can also be used to design class/mid-term/ internal question paper for progressive assessment.

**O) Suggested Assessment Table for Laboratory (Practical):**

S. No.	Laboratory Practical Titles	Relevant COs Number(s)	PLA/ELA		
			Performance		Viva-Voce (%)
			PRA* (%)	PDA** (%)	
1.	Design any one traditional costume of the Northern region of India.	CO2	30	60	10
2.	Design any one Traditional costume of the Southern region of India.	CO3	30	60	10
3.	Design any one Traditional costume of the Eastern region of India.	CO4	30	60	10
4.	Design any one Traditional costume of the Western region of India.	CO5	30	60	10
5.	Design four contemporary costumes by taking inspiration from traditional costumes of India.	ALL COs	30	60	10
6.	Construct any one contemporary costume by taking inspiration from traditional costumes of India.	ALL COs	30	60	10

**Legend:**

PRA\*: Process Assessment

PDA\*\*: Product Assessment

**Note:** This table can be used for both end semester and progressive assessment of practicals. Rubrics need to be prepared by the course teacher for each experiment/practical to assess the student's performance.

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lecture, Tutorials, Case Methods, Group Discussions, Industrial visits, Industrial Training, Field Trips, Portfolios, Learning, Role Play, Live Demonstrations in Classrooms, Labs, Field Information, and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software:**

S. No	Name of Equipment, Tools and Software	Broad Specifications	Relevant Experiment/Practical Number
1.	-----	-----N.A.-----	-----

**R) Suggested Learning Resources:****(a) Books:**

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	Indian Costume	A. Biswas	Publication division, New Delhi-1985 ISBN: 81-230-1055-9
2.	Traditional costumes of India	Ranjit Kaur Bajwa	Abhishek Publication, India ISBN-13-978-8182474604
3.	Costume and Fashion: A Concise History	James Laver.	Themes and Hudson Publications, London, UK, ISBN-13-978-0500204498
4.	Survey of Historic Costumes	Tortor P.G. & Marcketti S. B.	Bloomsbury Publishing, London, UK. -2015 978-1628921670
5.	Traditional Indian Costume and Textile	Dr. Parul Bhatnagar	Abhishek publication, Chandigarh ISBN- : 978-8182470026

**(b) Online Educational Resources:**

1. [https://en.wikipedia.org/wiki/Clothing\\_in\\_India](https://en.wikipedia.org/wiki/Clothing_in_India)
2. [http://www.slideshare.net/NAGASUNDARISENTHILKU/theories-of-clothing-195577506?from\\_m\\_app=android](http://www.slideshare.net/NAGASUNDARISENTHILKU/theories-of-clothing-195577506?from_m_app=android)
3. [https://www.brainkart.com/article/Classification,-Functions,-Theories-Of-Clothing\\_1858/](https://www.brainkart.com/article/Classification,-Functions,-Theories-Of-Clothing_1858/)
4. [http://www.indianetzone.com/12/tribal\\_jewellery\\_andhra\\_pradesh.html](http://www.indianetzone.com/12/tribal_jewellery_andhra_pradesh.html)
5. <https://www.lifestylefun.net/traditional-dress-of-manipur/>

**Note:** Teachers are requested to check the Creative Commons license status/ financial implications of the suggested, online educational resources before use by the students.

**(c) Others: -**

\*\*\*\*\*

- A) **Course Code** : 2450405(P2450405/S2450405)  
 B) **Course Title** : Garment Construction -I  
 C) **Pre-requisite Course(s)** :  
 D) **Rationale** :

Garment construction is a technical accomplishment that requires the knowledge and skills of basic sewing techniques— application of stitches, seams, darts, gathers, pleats, and edge finishing. This course is designed to develop a sound foundation for garment manufacturing techniques and to develop skills in students related to body measurements using appropriate tools, sewing by non-automatic machines, application of appropriate constructional stitches, and preparation of fabric for clothing construction.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the learners' accomplishment of the following course outcomes. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor, and Affective) in classroom/ laboratory/ workshop/ field/ industry.

**After completion of the course, the students will be able to**

- CO-1** Comprehend the various terminologies used in Garment construction  
**CO-2** Make garment components using suitable measuring, marking, sewing & cutting tools.  
**CO-3** Identify Clothing articles, parts of the given sewing machine, and various landmarks of the human body used in the apparel industry.  
**CO-4** Construct fabric samples using appropriate hand stitches, machine stitch shaping techniques, trims, and components.  
**CO-5** Develop various types of blocks using appropriate pattern-making techniques.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Program Outcomes (POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific knowledge	PO-2 Problem Analysis	PO-3 Design/development of solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and environment	PO-6 Project Management	PO-7 Lifelong learning	PSO-1	PSO-2
CO-1	3	-	-	-	-	-	1		
CO-2	3	1	2	2	1	1	1		
CO-3	3	1	2	2	1	1	1		
CO-4	3	1	2	2	1	1	1		
CO-5	3	2	2	2	1	1	1		

**Legend:** High (3), Medium (2), Low (1) and mapping (-)

\* PSOs will be developed by the respective program coordinator at the institute level. As per the latest NBA guidelines, formulating PSOs is optional

## G) Teaching &amp; Learning Scheme:

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					Total Credits (C)
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	
			L	T				
CACDDM	2450405	Garment Construction-I	-	-	04	02	06	03

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem based learning etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro projects, industrial visits, any other student activities etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources etc.

C: Credits = (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of teacher to ensure outcome of learning.

## H) Assessment Scheme:

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
CACDDM	2450405	Garment Construction-I	-	-	20	30	20	30	100

## Legend:

PTA: Progressive Theory Assessment in the classroom (includes class test, mid-term test, and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Teamwork & Self-Learning Assessment (Include assessment related to student performance in assignments, seminars, microprojects, industrial visits, self-learning, any other student activities, etc.)

## Note:

- ETA & ELA are to be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignments, micro-projects, seminars, and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria for internal as well as external assessment may vary as per the requirement of the respective course. For valid and reliable assessment, the internal faculty should prepare a checklist & rubrics for these activities.

I) **Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW), and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to the attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP 2020-related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS), and others must be integrated appropriately.

J) **Theory Session Outcomes (TSOs) and Units:**

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>TSO 1a.</i> Explain the role of garments in the fashion industry.</p> <p><i>TSO 1b.</i> Explain the terminologies associated with clothing details.</p> <p><i>TSO 1c.</i> Explain the terminologies associated with given clothing articles.</p> <p><i>TSO 1d.</i> Identify various clothing articles.</p>	<p><b>Unit- 1.0 Clothing Terminology</b></p> <p>1.1 Definition of garment</p> <p>1.2 History and role of garment in the human race.</p> <p>1.3 Garment manufacturing process chart</p> <p>1.4 Terminologies associated with clothing:</p> <p>1.4.1 Terms for clothing details: Fabric widths, Grain lines, Straightening, Shrinking, Seam, Seam allowances, Selvedge, Bias, Gusset, Crotch, inseam, Yoke, Piping, Lining, Interlining, Facing.</p> <p>1.4.2 Terms for clothing articles: Achkan and Sherwani, Bell-Bottoms, Blazer, Capri, Coat, Gown, Halter Top, Hijab, Jacket, Jumpsuit, Lehenga Choli, Anarkali, Suit, Churidar, Leggings, Lingerie, Muffler, Pajamas, Scarf, Shorts, Stole, Suit, Swimsuit, Tank Tops, Trousers, Undergarment, Vest, Crop top, Sarong, Waistcoat, Poncho, Peplum top, Cloak, Dungaree, Robe</p>	CO1
<p><i>TSO 2a.</i> Explain the function and uses of the given measuring tools.</p> <p><i>TSO 2b.</i> Explain the function and uses of the given marking tool.</p> <p><i>TSO 2c.</i> Explain the function and uses of a given cutting tool.</p> <p><i>TSO 2d.</i> Explain the function and uses of sewing and miscellaneous tools.</p> <p><i>TSO 2e.</i> Select a suitable Nonautomatic Garment Manufacturing tool for a given application.</p> <p><i>TSO 2f.</i> Use appropriate Nonautomatic Garment Manufacturing tools for a given application.</p>	<p><b>Unit-2.0 Non-Automatic Tools for Garment Manufacture</b></p> <p><b>2.1 Measuring Tools</b></p> <p>Function and uses of the following tools:</p> <p>2.1.1 Measuring tape</p> <p>2.1.2 Tailor's square</p> <p>2.1.3 Yardstick</p> <p>2.1.4 Clear ruler (see-through ruler)</p> <p>2.1.5 French Curve Set</p> <p>2.1.6 Setsquare</p> <p>2.1.7 flexible Curve Rulers</p> <p>2.1.8 Sewing gauge</p> <p><b>2.2 Marking tools</b></p> <p>Function and uses of the following tools:</p> <p>2.2.1 Chalk pencil</p> <p>2.2.2 Pencil</p> <p>2.2.3 Fiber pens</p> <p>2.2.4 Disappearing pens</p>	CO2

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
	<p>2.2.5 Children's washable markers 2.2.6 Tracing wheel 2.2.7 Fabric carbon paper 2.2.8 Tailor's Chalk 2.2.9 Pattern notcher 2.2.10 Marking with soap</p> <p><b>2.3 Cutting tools</b> Function and uses of the following tools: 2.3.1 Small scissor 2.3.2 Big shears 2.3.3 Thread trimmers 2.3.4 Pinking shears 2.3.5 Stitch opener 2.3.6 Rotary cutter 2.3.7 Surgical blades 2.3.8 Awl</p> <p><b>2.4 Sewing tools</b> Function and use of the following tools: 2.4.1 Bobbin &amp; Bobbin case 2.4.2 Machine sewing needles 2.4.3 Hand sewing needles</p> <p><b>2.5 Miscellaneous tools</b> Function and uses of the following tools: 2.5.1 Thimble 2.5.2 Pins and Pin cushions 2.5.3 Ironing board 2.5.4 Iron 2.5.5 Bobbin winder</p>	
<p><i>TSO 3a.</i> Identify different Parts of a given sewing machine.</p> <p><i>TSO 3b.</i> Explain the functions of different parts of the given sewing machine.</p> <p><i>TSO 3c.</i> Explain the steps for the operation of the given sewing machine.</p> <p><i>TSO 3d.</i> Describe the procedure for maintenance of the given sewing machine.</p>	<p><b>Unit-3.0 Sewing Machine</b></p> <p>3.1. History of the sewing machine. 3.2. Types of sewing machines. 3.2.1. Half Shuttle sewing machine. 3.2.2. Full Shuttle sewing machine. 3.3. Parts of the sewing machine and its functions. 3.4. Operation of sewing machine. 3.5. Care &amp; Maintenance of sewing machine.</p>	<b>CO3</b>
<p><i>TSO 4a.</i> Explain the landmarks on the body required for making garments.</p> <p><i>TSO 4b.</i> Take horizontal and vertical body measurements for garment making.</p> <p><i>TSO 4c.</i> Take horizontal and vertical measurements from given readymade garments.</p> <p><i>TSO 4d.</i> Take horizontal and vertical measurements from the standard chart for garment making.</p>	<p><b>Unit-4.0 Body Measurement</b></p> <p>4.1. Landmarks on the body required for making the garments. 4.2. Techniques of taking body measurements. 4.2.1 Directly from the body. (Vertical &amp; Horizontal) 4.2.2 Indirectly from the readymade garments. 4.2.3 From standard size charts. 4.2.4 Technique of calculating all the measurements from chest measurements.</p>	<b>CO4</b>
<p><i>LSO 5a</i> Explain the different shaping techniques used in garments.</p>	<p><b>Unit-5.0 Clothing Construction</b></p>	<b>CO5</b>

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>LSO 5b</i> Differentiate between different hand stitches.</p> <p><i>LSO 5c</i> Suggest the machine stitches to be used for a given garment.</p> <p><i>LSO 5d</i> Stitch the given Fabric as per the given direction, using appropriate hand stitches.</p> <p><i>LSO 5e</i> Stitch the given Fabric as per the given direction, using appropriate machine stitches.</p> <p><i>LSO 5f</i> Use appropriate shaping techniques to give the required shape to the garment.</p>	<p>5.1. Hand stitches</p> <p>5.1.1. Basting</p> <p>5.1.2. Running stitch</p> <p>5.1.3. Types of hemming stitches</p> <p>5.1.3.1. Blind hemming stitch</p> <p>5.1.3.2. Simple hemming stitch</p> <p>5.2. Machine stitches</p> <p>5.2.1. Plain Seam</p> <p>5.2.2. Curved Seam</p> <p>5.2.3. Cornered</p> <p>5.2.4. To join an inward corner</p> <p>5.2.5. Trimming</p> <p>5.2.6. To trim corner</p> <p>5.2.7. Clipping</p> <p>5.2.8. Hand overcast</p> <p>5.2.9. Zigzagged</p> <p>5.2.10. Bias bound</p> <p>5.2.11. French seam</p> <p>5.2.12. Flat felled seam</p> <p>5.2.13. Self-bound seam</p> <p>5.2.14. Corded seams</p> <p>5.2.15. Lapped seams</p> <p>5.2.16. Fagotted seam</p> <p>5.2.17. Double topstitched seam</p> <p>5.2.18. Welt seam</p> <p>5.2.19. Tuck seam</p> <p>5.2.20. Slot seam</p> <p>5.3. Shaping techniques</p> <p>5.3.1 Darts</p> <p>5.3.2 Tucks</p> <p>5.3.3 Pleats</p> <p>5.3.4 Gathers</p> <p>5.3.5 Shearing</p> <p>5.3.6 Smocking</p> <p>5.3.7 Ruffles.</p>	

**Note:** One major TSO may require more than one Theory session/Period.

**K) Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: P2450405**

Practical/Lab Session Outcomes (LSOs)	S. No.	Laboratory Experiment/Practical Titles	Relevant COs Number(s)
<i>LSO 1.1</i> Prepare a labeled chart of tools and types of equipment used in Garment making.	1.	Tools and types of equipment in Garment-making	CO2
<i>LSO 2.1</i> Draw a neat sketch of measuring tools used for Garment manufacturing.	2.	Measuring tools for Garment manufacturing.	CO2
<i>LSO 3.1</i> Draw a neat sketch of marking tools used for Garment manufacturing.	3	Marking tools for Garment manufacturing	CO2
<i>LSO 4.1</i> Draw a neat sketch of cutting tools used for Garment manufacturing.	4	Cutting tools for Garment manufacturing	CO2
<i>LSO 5.1</i> Draw a neat sketch of sewing tools used for Garment manufacturing.	5	Sewing tools or Garment manufacturing	CO2
<i>LSO 6.1</i> Prepare a labeled outline diagram of sewing machine.	6	Types of sewing machines and their parts	CO3
<i>LSO 7.1</i> Take the body measurement of another person and note it in the file.	7	Steps were taken body measurements	CO4
<i>LSO 8.1</i> Taking and recording measurements for various readymade garments.	8	Measurements of readymade garments	CO4
<i>LSO 9.1</i> Prepare samples of hand stitches.	9	Basic hand stitches.	CO5
<i>LSO 10.1</i> Prepare a sample of given types of seam on the selected fabric. (Plain Seam, Curved Seam, cornered to join an inward corner, Trimming, Clipping, Bias bound, French Seam, Flat felled Seam, Self-bound Seam, Lapped Seams, Double topstitched Seam, Welt Seam, Slot Seam machine stitches)	10	Preparation of seams	CO5

**L) Suggested Term Work and Self-Learning: S2450405** Some sample suggested assignments, micro-projects, and other activities are mentioned here for reference.

**a. Assignments:** Questions/Problems/Numerical/Exercises to be provided by the course teacher in line with the targeted COs.

1. Write problem-solving remedies after observing the problem of the sewing machine.
2. Collect the pictures of different seams from the internet.
3. Collect the pictures of different stitches from the internet.
4. Collect the picture of different clothing articles from the internet.
5. Collect the picture of the different tools of garment making from the internet.

**b. Micro Projects:**

1. Prepare a chart of tools required for sewing and cutting.
2. Make an article in which more than five seams are used.
3. Collect pictures of various Garments, identify the garment components, and prepare the report.
4. Prepare to Take 5-6 stitched garments identify different shaping techniques and prepare a report.
5. Undertake a market survey of trims and components available in the market and prepare a report.
6. Prepare creative articles using the waste material collected while preparing different garment components.

**c. Other Activities:**

1. Visit nearby garment workshop and collect information about operations performed by identified workshop and prepare the list of tools and equipment used for tailoring.
2. Visit a nearby garment workshop and perform body measurements of another person.
3. Select any one garment and perform the measurement using suitable measuring tools.
4. Select any three different readymade garments and prepare a list of different types of seams used in selected garments.
5. Collect 5 designs from the internet to combine basic stitches and label the stitch name.

**M) Suggested Course Evaluation Matrix:** The course teacher has to decide and use the appropriate assessment strategy and its weightage in theory, laboratory, and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

COs	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test	End Theory Assessment (ETA)	Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
			Assignments	Micro Projects	Other Activities*		
CO-1	--	--	20%	-	20%	-	-
CO-2	--	--	20%	25%	20%	40%	25%
CO-3	--	--	20%	25%	20%	10%	25%
CO-4	--	--	20%	25%	20%	25%	25%
CO-5	--	--	20%	25%	20%	25%	25%
<b>Total Marks</b>			10	30	10	20	30
			<b>50</b>				

**Legend:**

\*: Other Activities include self-learning, seminars, visits, surveys, product development, software development, etc.

\*\* : Mentioned under point- (N)

# : Mentioned under point-(O)

**Note:**

- The percentages given are approximate
- In the case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided among all those COs mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises questions related to each COs' achievement.

**N) Suggested Specification Table for End Semester Theory Assessment: (Not Applicable)**

**O) Suggested Assessment Table for Laboratory (Practical):**

S. No.	Laboratory Practical Titles	Relevant COs Number(s)	PLA/ELA		
			Performance		Viva-Voce (%)
			PRA* (%)	PDA** (%)	
1.	Tools and types of equipment in Garment making	CO2	60	30	10
2.	Measuring tools for Garment manufacturing.	CO2	60	30	10
3.	Marking tools for Garment manufacturing	CO2	60	30	10
4.	Cutting tools for Garment manufacturing	CO2	60	30	10

S. No.	Laboratory Practical Titles	Relevant COs Number(s)	PLA/ELA		
			Performance		Viva- Voce (%)
			PRA* (%)	PDA** (%)	
5.	Sewing tools or Garment manufacturing	CO2	60	30	10
6.	Types of sewing machines and its parts	CO3	60	30	10
7.	Steps taken body measurements	CO4	60	30	10
8.	Measurements of readymade garments	CO4	30	60	10
9.	Basic hand stitches.	CO5	30	60	10
10.	Preparation of seams	CO5	30	60	10

**Legend:**

PRA\*: Process Assessment

PDA\*\*: Product Assessment

**Note:** This table can be used for semesters as well as progressive assessment of practicals. Rubrics need to be prepared/practical to assess student performance.

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lectures, Tutorial, Case Methods, Group Discussions, Industrial visits, Industrial Training, Field Trips, Portfolios, Learning, Role Play, Live Demonstrations in Classrooms, Labs, Field Information, and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software:**

S. No.	Name of Equipment, Tools and Software	Broad Specifications	Relevant Experiment/Practical Number
1.	Tailoring Kit	Measuring tools, marking tools, cutting tools, and sewing devices.	1 to 9
2.	Sewing Machine	Half-shuttle and full-shuttle sewing machine	1 to 9

**R) Suggested Learning Resources:**

(a) Books:

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	Clothing construction	Evelyn A. Mansfield	Houghton miffin 1953
2.	The technology of clothing manufacture	Harold Carr and Barbara Latham	John Wiley & Sons, 1994
3.	The Art of Sewing	Anna Jacob Thomas	UBS Publishers Distributors Limited, New Delhi. ISBN: 81-85944-75-X
4.	Pattern Making for Fashion Design	Helen Joseph - Armstrong	Pearson Education, New Delhi – 110092. ISBN: 81-297-0925-2
5.	New Complete Guide to Sewing		Reader's Digest, Canada. ISBN: 0-7621-0420-1
6.	Visual Design in Dress	Marian L Davis	Prentice Hall, Upper Saddle River, NJ 07458. ISBN: 0-13-112129-4

**(b) Online Educational Resources:**

1. <https://www.youtube.com/watch?v=2681yeSrsM0>
2. [https://youtu.be/r\\_lcrOM78Xc](https://youtu.be/r_lcrOM78Xc)
3. <https://youtu.be/K27m4KfNUWE>
4. <https://youtu.be/010nr2avsiE>
5. <https://www.youtube.com/watch?v=3WbxBQtQ0UA>

**Note:** Teachers are requested to check the Creative Commons license status/ financial implications of the suggested, online educational recourses before use by the students.

**(c) Others:**

1. <https://ncert.nic.in/vocational/pdf/ivsm103.pdf>
2. [https://cbseacademic.nic.in/web\\_material/publication/cbse/39GarmentConstruction-II-XII.pdf](https://cbseacademic.nic.in/web_material/publication/cbse/39GarmentConstruction-II-XII.pdf)
3. Lab Manual
4. <https://cbseportal.com/ebook/vocational-books-fashion-design-and-garment-technology>
5. <https://bie.tg.nic.in/Pdf/GarmentTextBookfinal.pdf>
6. <https://ufdc.ufl.edu/IR00000337/00001/5j>

\*\*\*\*\*

- A) **Course Code** : 2450406(P2450406/S2450406)  
 B) **Course Title** : Design Development Process  
 C) **Pre-requisite Course(s)** :  
 D) **Rationale** :

This course acquaints the students with Design thinking in a fashion that involves a creative, user-centred approach to designing and manufacturing apparel. It's about understanding the end-users – their desires, needs, and challenges – and creating fashion solutions that are aesthetically pleasing but also practical, sustainable, and innovative. It also encourages students to think outside the box, anticipate future trends, and be empathetic to customer experiences. This course also tries to make students able to understand the different kinds of fabric used for different kinds of patterns according to their design. Besides, the hands-on experience provided by this course will help students in making a garment from ideation to the final product development.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of the following course outcomes by the learners. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor and Affective) in classroom/ laboratory/ workshop/ field/ industry.

**After completion of the course, the students will be able to**

- CO-1** Create direction boards for design development for garment manufacturing.  
**CO-2** Design ideation sketches and range development.  
**CO-3** Develop specification drawings for garment making.  
**CO-4** Select an appropriate fabric for fashion garments as per the requirement of design.  
**CO-5** Create fashion garments using appropriate garment manufacturing techniques.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Programme Outcomes (POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/ Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2
CO-1	3	2	2	2	2	2	3		
CO-2	3	2	2	2	2	2	3		
CO-3	3	2	2	2	2	2	3		
CO-4	3	2	2	2	2	2	3		
CO-5	3	2	2	2	2	2	3		

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\* PSOs will be developed by the respective programme coordinator at the institute level. As per the latest NBA guidelines, formulating PSOs is optional

## G) Teaching &amp; Learning Scheme:

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					Total Credits (C)
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	
			L	T				
CACDDM	2450406	Design Development Process	-	-	04	02	06	03

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem-based learning etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro-projects, industrial visits, any other student activities etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources etc.

C: Credits = (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of the teacher to ensure the outcome of learning.

## H) Assessment Scheme:

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
CACDDM	2450406	Design Development Process	-	-	20	30	20	30	100

## Legend:

PTA: Progressive Theory Assessment in the classroom (includes class test, mid-term test and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Term work & Self Learning Assessment (Includes assessment related to student performance in assignments, seminars, micro-projects, industrial visits, self-learning, any other student activities etc.)

## Note:

- ETA & ELA are to be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignments, micro-projects, seminars and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria for internal as well as external assessment may vary as per the requirement of the respective course. For valid and reliable assessment, the internal faculty should prepare a checklist & rubrics for these activities.

I) **Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW) and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to the attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP 2020-related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS) and others must be integrated appropriately.

J) **Theory Session Outcomes (TSOs) and Units:**

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)	
TSO 1.1. Make use of the design development process	<b>Unit-1.0-Design Development Processes</b>	CO1 CO2 CO3 CO4 CO5	
TSO 1.2. Find inspiration from various sources			1.1 Mood Board/Ideation/Inspiration Board
TSO 1.3. Sketch the design			1.2 Fashion illustration/Sketches
TSO 1.4. Describe the tech pack			1.3 Technical sketches
TSO 1.5. Select appropriate fabrics as well as trimmings.			1.4 Tech Pack
TSO 1.6. Analyze the prepared outfit			1.5 Sourcing
	1.6 Sampling		
	1.7 Fit & Review		
	1.8 Production		

**Note:** One major TSO may require more than one Theory session/Period.

K) **Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: P2450406**

Practical/Lab Session Outcomes (LSOs)	Sr. No.	Laboratory Experiment/Practical Titles	Relevant COs Number(s)
LSO 1.1. Select suitable tools and materials to design direction boards	1.	Create a Colour direction board, Silhouette /style direction board, Surface embellishments and material direction board based on the consumer/user preferences, overall trend, season and cost limitations. Develop an overall concept that suits the characteristics and constraints.	CO1
LSO 1.2. Create colour direction boards			
LSO 1.3. Create silhouette/style direction boards			
LSO 1.4. Create material direction boards			
LSO 1.5. Develop overall direction boards			
LSO 2.1. Select suitable tools and materials to design ideation sketches on fashion croquis.	2	Draw a minimum of 20 design ideation sketches on fashion croquis with colour references and description of design details.	CO2
LSO 2.2. Design ideation sketches on fashion croquis.			
LSO 3.1. Design shortlisted range of ensembles.	3	Select any one design from the above illustrations for further range development. Develop 5-7 illustrations from it.	CO2
LSO 3.2. Select a suitable ensemble from the range for further development			
LSO 4.1. Create flat sketches.	4	Make flat sketches and specification sheets of selected illustrations.	CO3
LSO 4.2. Develop specification sheets.			
LSO 4.3. Suggest what fabric is best suited for the garment.			
LSO 5.1. Find suitable sources to collect appropriate fabric swatches.	5	Collect/Source appropriate fabric swatches from the market and mention the width, price and composition of the fabric.	CO4
LSO 5.2. Collect/Source appropriate fabric swatches from the market and mention the width, price and composition of the fabric.			

Practical/Lab Session Outcomes (LSOs)	Sr. No.	Laboratory Experiment/Practical Titles	Relevant COs Number(s)
<i>LSO 7.1.</i> Develop patterns for the selected garment via draping or flat pattern method.	6	Develop paper patterns for the selected garment via draping or flat pattern method.	CO5
<i>LSO 7.1.</i> Create test fit garment. <i>LSO 7.2.</i> Analyze test fit garment.	7	Create muslin fit/test fit of a finalized garment.	CO5
<i>LSO 8.1.</i> Construct garments with appropriate finishes and embellishments	8	Construct the final garment with appropriate finishes and embellishments.	CO5

**L) Suggested Term Work and Self-Learning: S2450406** Some sample suggested assignments, micro-projects and other activities are mentioned here for reference.

**a. Assignments:** Questions/Problems/Numerical/Exercises to be provided by the course teacher in line with the targeted COs.

1. Make a PowerPoint presentation on the design development of any garment.
2. Make a mood board based on any theme.

**b. Micro Projects:**

1. Design a dress on an Indian festival theme/fashion show/sportswear/ traditional wear etc. Suggest materials and paste sample fabric swatches on the sheet.
2. Prepare accessories in alignment with your prepared fashion garment.
3. Prepare any five digital designs of fashion garments using design software.

**c. Other Activities:**

1. Seminar Topics:

- a) Presentation on design ideation sketches of men's wear
- b) Presentation on design ideation sketches of women's wear
- c) Presentation on design ideation sketches of kids' wear

2. Visits: Visit malls/exhibitions/ other such fashion garment units etc.

3. Self-learning topics:

- Videos on design thinking and design development
- Sources of fashion inspiration
- Historic costumes and textiles from different countries
- How to create high-end customized fashion garments?
- Embellishment techniques for fashion garment

**M) Suggested Course Evaluation Matrix:** The course teacher has to decide and use the appropriate assessment strategy and its weightage in theory, laboratory and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

COs	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test	End Theory Assessment (ETA)	Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
			Assignments	Micro Projects	Other Activities*		
CO-1	-	-	20%	20%	20%	20%	20%
CO-2	-	-	20%	20%	20%	20%	20%
CO-3	-	-	10%	10%	10%	10%	10%
CO-4	-	-	25%	25%	25%	25%	25%
CO-5	-	-	25%	25%	25%	25%	25%
<b>Total Marks</b>	-	-	<b>20</b>	<b>20</b>	<b>10</b>	<b>20</b>	<b>30</b>
			50			50	

**Legend:**

\*: Other Activities include self- learning, seminar, visits, surveys, product development, software development etc.

\*\* : Mentioned under point- (N)

#: Mentioned under point-(O)+

**Note:**

- The percentage given are approximate
- In case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided in all those COs mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises of questions related to achievement of each COs.

**N) Suggested Specification Table for End Semester Theory Assessment: (Not Applicable)**

**O) Suggested Assessment Table for Laboratory (Practical):**

S. No.	Laboratory Practical Titles	Relevant COs Number(s)	PLA/ELA		
			Performance		Viva-Voce (%)
			PRA* (%)	PDA** (%)	
1.	Create a Colour direction board, Silhouette /style direction board, Surface embellishments and material direction board based on the consumer/user preferences, season, overall trend and cost limitations. Develop an overall concept that suits the characteristics and constraints.	CO1	40	50	10
2.	Draw a minimum of 20 design ideation sketches on fashion croquis with colour references and description of design details.	CO2	40	50	10
3.	Select any one design from the above illustrations for further range development. Develop 5-7 illustrations from it.	CO2	40	50	10
4.	Make flat sketches and specification sheets of selected illustrations.	CO3	40	50	10
5.	Collect/Source appropriate fabric swatches from the market while mentioning the width, price and composition of the fabric	CO4	30	60	10
6.	Develop paper patterns for the selected garment via draping or flat pattern method.	CO5	40	50	10
7.	Create muslin fit/test fit of a finalized garment.	CO5	40	50	10
8.	Construct the final garment with appropriate finishes and embellishments.	CO5	40	50	10

**Legend:**

PRA\*: Process Assessment

PDA\*\*: Product Assessment

**Note:** This table can be used for both end semester as well as progressive assessment of practicals. Rubrics need to be prepared by the course teacher for each experiment/practical to assess the student's performance.

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lectures, Tutorial, Case Methods, Group Discussions, Industrial visits, Industrial Training, Field Trips, Portfolio, Learning, Role Play, Live Demonstrations in Classrooms, Labs, Field Information and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software:**

Sr. No.	Name of Equipment, Tools and Software	Broad Specifications	Relevant Experiment/Practical Number
1.	Dress form	Full size/ half size-adjustable, wheelbase dress form for men, women and children as per requirement	6 (optional)
2.	Drawing tools and materials such as pencils of different shades, rulers, erasers, micro-tip pens	-----	1,2,4,5,6
3.	Colouring tools and materials colour pencils, charcoal, Staedtler colours, watercolours	-----	1,2,3,4,5,6
4.	Drawing sheet	A-3 size thick drawing sheets	1,2,3,4,5,6,7,8
5.	Sewing machine	Full shuttle sewing machine/high-speed lock stitch machine	7,8

**R) Suggested Learning Resources:**

(a) Books:

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	The Design Process	Karl Aspelun	Fair child Book: 2010 ISBN-9781628920666
2.	Managing the Design Process Concept Development: An Essential Manual for the Working Designer	Terry Stone	Rockport Publishers: 2010 ISBN-13 - 978-1592536177
3.	A Designer's Research Manual: Succeed in Design by Knowing Your Clients and What They Really Need (Design Field Guide)	Jennifer Visocky O'Grady	Rockport Publishers: 2009 ISBN-13 -978-1592535576
4.	The Ultimate Fashion Study Guide the Design Process Book	Victoria Hunter	Hunter Publishing Corp.; 1st edition 2007 ISBN-13 - 978-0979445323
5	Fashion Thinking: Creative Approaches to the Design Process	Fiona Dieffenbacher	Fairchild Books; 2013 ISBN-13 - 978-1350082755
6	Fashion Design: Process, Innovation and Practice	Kathryn McKelvey, Janine Munslow	Wiley; 2012, ISBN 13 - 978- 0470655771

**(b) Online Educational Resources:****SOFTWARE/LEARNING WEBSITES:**

1. <https://www.fibre2fashion.com/industry-article/5723/the-design-process-in-fashion-product-development>
2. <https://www.fibre2fashion.com/industry-article/5723/the-design-process-in-fashion-product-development>
3. <https://www.tutorialspoint.com/origin-and-role-of-pattern-development-in-fashion>
4. [https://www.usha.com/sites/default/files/sewing\\_tutorials/indian-garment-design-course-book.pdf](https://www.usha.com/sites/default/files/sewing_tutorials/indian-garment-design-course-book.pdf)
5. [Garment%20Process\\_8%20head\\_Fashion\\_Design\\_Basics\\_eng\\_Oct\\_2011%20\(1\).pdf](#)
6. <https://www.quora.com/What-is-fashion-apparel-design>
7. <https://fashionandillustration.com/en/how-to-create-a-fashion-collection/>
8. <https://tukatech.com/design-your-own-clothes/>
9. <https://www.google.com/search?q=range+development+meaning&oq=range+development&aqs=chrome.1.69i57j0i512j46i175i199i512j0i512l6j0i20i263i512.9520j0j7&sourceid=chrome&ie=UTF-8>
10. <https://www.the-sustainable-fashion-collective.com/2015/06/11/what-is-a-range-plan-for-fashion-designers>
11. <https://www.google.com/search?q=range+development+meaning&oq=range+development&aqs=chrome.1.69i57j0i512j46i175i199i512j0i512l6j0i20i263i512.9520j0j7&sourceid=chrome&ie=UTF-8>
12. <https://fashioninsiders.co/toolkit/business-basics/fashion-design-process-part2/>

**Note:** Teachers are requested to check the Creative Commons license status/ financial implications of the suggested, online educational recourses before use by the students.

**(b) Others:**

1. Lab Manual
2. <https://www.pointsofmeasure.com/tutorials-education/the-design-process-in-9-simple-steps>

\*\*\*\*\*

- A) **Course Code** : 2450403(T2450403/P2450403/S2450403)  
 B) **Course Title** : Draping and Grading  
 C) **Pre-requisite Course(s)** :  
 D) **Rationale** :

Draping is used to develop the structure of the designed garment. The main purpose of pattern grading is to proportionally increase or decrease the size of a pattern, at the same time also maintaining the same fit and shape of a garment. It is useful for fashion design students. The knowledge of draping and grading gives a proper idea and visualization that how a dress is going to look at the end, even before starting to cut and stitch the costume. This course will help diploma students apply the knowledge of advanced draping and pattern grading in costume design and dressmaking.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of the following course outcomes by the learners. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor, and Affective) in classroom/ laboratory/ workshop/ field/ industry.

**After completion of the course, the students will be able to**

- CO 1. Use the fundamentals of draping for garment designing.  
 CO 2. Create components of the garment using draping techniques.  
 CO 3. Create a basic skirt and its variations as well as trousers.  
 CO 4. Apply the fundamentals of grading for garment designing.  
 CO 5. Use various techniques of pattern grading for garment designing.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Program Outcomes(POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/ Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2
CO-1	3	2	2	2	2	2	2		
CO-2	3	2	2	2	2	2	2		
CO-3	3	2	2	2	2	2	2		
CO-4	3	2	2	2	2	2	2		
CO-5	3	2	2	2	2	2	2		

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\* PSOs will be developed by the respective program coordinator at the institute level. As per the latest NBA guidelines, formulating PSOs is optional

## G) Teaching &amp; Learning Scheme:

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	Total Credits (C)
			L	T				
CACDDM	2450403	Draping and Grading	03	-	04	02	09	06

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem-based learning, etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field, or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro-projects, industrial visits, any other student activities, etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources, etc.

C: Credits = (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of the teacher to ensure the outcome of learning.

## H) Assessment Scheme:

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
CACDDM	2450403	Draping and Grading	30	70	20	30	20	30	200

## Legend:

PTA: Progressive Theory Assessment in the classroom (includes class test, mid-term test, and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Term work & Self Learning Assessment (Includes assessment related to student performance in assignments, seminars, micro-projects, industrial visits, self-learning, any other student activities, etc.)

## Note:

- ETA & ELA are to be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignments, micro-projects, seminars, and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria for internal as well as external assessment may vary as per the requirement of the respective course. For valid and reliable assessment, the internal faculty should prepare a checklist & rubrics for these activities.

I) **Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW), and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to the attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP 2020-related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS), and others must be integrated appropriately.

J) **Theory Session Outcomes (TSOs) and Units: T2450403**

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>TSO 1a.</i> Define draping.</p> <p><i>TSO 1b.</i> Describe the use of different tools and equipment required for draping.</p> <p><i>TSO 1c.</i> Describe the importance of draping</p> <p><i>TSO 1d.</i> Explain the principles of draping.</p> <p><i>TSO 1e.</i> Explain methods of draping.</p> <p><i>TSO 1f.</i> Explain the advantages and disadvantages of draping.</p> <p><i>TSO 1g.</i> Enumerate the cardinal points that should be taken care of while grading up and down.</p>	<p><b>Unit-1.0- Introduction to Draping and Dress Form</b></p> <p>1.1 Tools and equipment required for draping</p> <p>1.2 Importance and uses of draping</p> <p>1.3 Principles of Draping</p> <p>1.4 Method of draping</p> <p>1.5 Types uses, and landmarks of dress form.</p> <p>1.6 Preparation of fabrics for draping grains, selvages, and seam allowance</p> <p>1.7 Advantages and disadvantages of draping</p>	<b>CO1</b>
<p><i>TSO 2a.</i> Explain the draping technique of the front and back bodice for making garments.</p> <p><i>TSO 2b.</i> Describe the draping technique of a given basic sleeve and its variations.</p> <p><i>TSO 2c.</i> Describe the draping technique of a given basic collar and its variations.</p> <p><i>TSO 2d.</i> Describe the draping technique of a given yoke and its variations.</p>	<p><b>Unit-2.0- Draping of Components of Garment</b></p> <p>2.1 Basic bodice front &amp; Back.</p> <p>2.2 Sleeve</p> <p>2.2.1 Basic Sleeve</p> <p>2.2.2 Raglan sleeve</p> <p>2.2.3 Peter pan collar</p> <p>2.3 Collar</p> <p>2.3.1 Mandarin collar</p> <p>2.3.2 Shirt collar</p> <p>2.4 Yoke</p> <p>2.4.1 Shirt yoke</p> <p>2.4.2 Skirt yoke</p> <p>2.4.3 Midriff yoke</p>	<b>CO2</b>
<p><i>TSO 3a.</i> Comprehend the draping method of pattern-making for lower-body garments.</p> <p><i>TSO 3b.</i> Describe the draping technique of given skirts and their variations.</p> <p><i>TSO 3c.</i> Describe the draping technique of the given trouser.</p>	<p><b>Unit-3.0- Draping of Skirts as well as Trousers</b></p> <p>3.1 Skirts</p> <p>3.1.1 Plain skirt</p> <p>3.1.2 Pleated skirt</p> <p>3.1.3 Flared skirt</p> <p>3.2 Trouser</p>	<b>CO3</b>
<p><i>TSO 4a.</i> Define grading.</p> <p><i>TSO 4b.</i> Explain Grading terminologies.</p> <p><i>TSO 4c.</i> Explain the importance of grading.</p> <p><i>TSO 4d.</i> Explain the advantages and disadvantages of grading.</p>	<p><b>Unit-4.0- Introduction to Grading</b></p> <p>4.1 Grading: Grading Terminologies-Grade, Grading, Cardinal points, base pattern, Trueing, Size-run, cut and spread/ cut and overlap, pattern shifting, suppression grading, balance, nested (stacked) grading</p> <p>4.2 Importance of grading</p> <p>4.4 Advantages and disadvantages of grading</p>	<b>CO4</b>

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>TSO 5a.</i> Explain techniques of grading.</p> <p><i>TSO 5b.</i> Describe manual pattern grading.</p> <p><i>TSO 5c.</i> Describe Computerized Pattern Grading.</p>	<p><b>Unit-5.0 Techniques of Grading</b></p> <p>5.1 Manual pattern grading  5.1.1 Cut and Spread  5.1.2 Pattern shifting method</p> <p>5.2 Computer-aided pattern grading</p>	CO5

**Note:** One major TSO may require more than one Theory session/Period.

### K) Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: P2450403

Practical/Lab Session Outcomes (LSOs)	Sr. No.	Laboratory Experiment/Practical Titles	Relevant COs Number(s)
<i>LSO 1.1.</i> Create a basic bodice front & back using the draping technique	1	Preparation of basic bodice front & back	CO1, CO2
<i>LSO 2.1.</i> Create a basic sleeve and its variations using the draping technique.	2	Preparation of basic and Raglan sleeve	CO1, CO2
<i>LSO 3.1.</i> Create various types of collars using draping techniques	3	Preparation of Peter pan, Mandarin, and Shirt collar	CO1, CO2
<i>LSO 4.1.</i> Create various types of yokes using draping techniques.	4	Preparation of Shirt yoke, Skirt yoke, and Midriff yoke	CO1, CO2
<i>LSO 5.1.</i> Create different types of skirts as well as trousers using draping techniques.	5	Preparation of Plain skirt, Pleated skirt, Flared skirt, and trouser	CO1, CO3
<i>LSO 6.1.</i> Grade the pattern one size up and one size down for the front, back sleeve, and collar.	6	Grading one size up and one size down for the front, back, sleeve, and collar.	CO4, CO5

L) **Suggested Term Work and Self-Learning: S2450403** Some sample suggested assignments, micro-projects, and other activities are mentioned here for reference.

a. **Assignments:** Questions/Problems/Numerical/Exercises to be provided by the course teacher in line with the targeted COs.

1. Write the difference between Draping and Flat pattern techniques.
2. Draw draping effects of various fabrics such as poplin, denim, chiffon, satin, velvet, organza, etc.
3. Explain the importance of pattern grading in garment manufacturing.

b. **Micro Projects:**

1. Construct a fashion garment using the draping technique.
2. Prepare a garment with a cowl neck/halter neck/jabot etc.
3. Prepare a garment that is off-shoulder.
4. Create innovative designs of sleeves, collars, cuffs, necklines, etc. using draping techniques.

c. **Other Activities:**

1. Seminar Topics:
  - Draping of different types of fabrics and their effects.
  - Advantages of Pattern Grading.
  - Grading Techniques
  -
2. Visits:
  - Visit to garment industry/ boutique to observe pattern grading/ draping.

## 3. Self-learning topics:

- Draping techniques videos.
- Pattern grading videos.
- Videos on creating variations of collars, sleeves, yokes, cuffs, etc. by draping techniques.

**M) Suggested Course Evaluation Matrix:** The course teacher has to decide and use the appropriate assessment strategy and its weightage in theory, laboratory, and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

COs	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test	End Theory Assessment (ETA)	Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
Assignments			Micro Projects	Other Activities*			
CO-1	30%	30%	20%	20%	20%	20%	20%
CO-2	10%	10%	20%	20%	20%	40%	20%
CO-3	10%	10%	20%	20%	20%	20%	20%
CO-4	30%	30%	20%	20%	20%	10%	20%
CO-5	20%	20%	20%	20%	20%	10%	20%
<b>Total Marks</b>	<b>30</b>	<b>70</b>	<b>20</b>	<b>20</b>	<b>10</b>	<b>20</b>	<b>30</b>
			<b>50</b>				

**Legend:**

\*: Other Activities include self-learning, seminar, visits, surveys, product development, software development etc.

\*\* : Mentioned under point- (N)

# : Mentioned under point-(O)

**Note:**

- The percentage given are approximate
- In case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided in all those COs mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises of questions related to achievement of each COs.

**N) Suggested Specification Table for End Semester Theory Assessment:** Specification table represents the reflection of sample representation of assessment of cognitive domain of full course.

Unit Title and Number	Total Classroom Instruction (CI) Hours	Relevant COs Number(s)	Total Marks	ETA (Marks)		
				Remember (R)	Understanding (U)	Application & above (A)
Unit-1.0- Introduction to draping and dress form	12	CO1	21	6	12	3
Unit-2.0- Draping of components of the garment	10	CO2	07	2	2	3
Unit-3.0- Draping of skirts and its variations as well as trouser	10	CO3	10	2	3	5
Unit-4.0- Introduction to grading	10	CO4	20	6	8	6
Unit-5.0 Techniques of grading	06	CO5	12	4	4	4
<b>Total</b>	<b>48</b>	<b>-</b>	<b>70</b>	<b>20</b>	<b>29</b>	<b>21</b>

**Note:** A similar table can also be used to design class/mid-term/ internal question papers for progressive assessment.

**O) Suggested Assessment Table for Laboratory (Practical):**

S. No.	Laboratory Practical Titles	Relevant COs Number(s)	PLA/ELA		
			Performance		Viva-Voce (%)
			PRA* (%)	PDA** (%)	
1.	Preparation of basic bodice front & back	CO1, CO2	50	40	10
2.	Preparation of basic and Raglan sleeve	CO1, CO2	50	40	10
3.	Preparation of Peter pan, Mandarin, and Shirt collar	CO1, CO2	50	40	10
4.	Preparation of Shirt yoke, Skirt yoke, and Midriff yoke	CO1, CO2	50	40	10
5.	Preparation of Plain skirt, Pleated skirt, Flared skirt, and trouser	CO1, CO3	50	40	10
6.	Grading one size up and one size down for the front, back, sleeve, and collar.	CO4, CO5	50	40	10

**Legend:**

PRA\*: Process Assessment

PDA\*\*: Product Assessment

**Note:** This table can be used for both end semester as well as progressive assessment of practicals. Rubrics need to be prepared by the course teacher for each experiment/practical to assess the student's performance.

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lectures, Tutorial, Case Methods, Group Discussions, Industrial visits, Industrial Training, Field Trips, Portfolios, Learning, Role Play, Live Demonstrations in Classrooms, Lab, Field Information, and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software:**

S. No.	Name of Equipment, Tools and Software	Broad Specifications	Relevant Experiment/Practical Number
1.	Dress form	Full size/ half size-adjustable, wheelbase dress form for men, women, and children as per requirement	1,2,3,4,5

**R) Suggested Learning Resources:****(a) Books:**

Sr. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	The Art of fashion Draping	Amaden Conie-Crawford	Fairchild, 1994. ISBN-13 : 978-1563670176
2.	Construction	Annette Fischer	AVA Publication-2009. ISBN-13 978-2940373758
3.	Draping for Apparel Design	Armstrong, H.J.,	Fairchild Publications, Inc, New York, 2008 SBN-13 : 978-1609012403
4.	Dress Fitting	Bray Natalie	Om Book Services, 1987. ISBN-13 : 978-0632018796
5.	Draping for Fashion Design	Jaffe, H. & Relis, N.,	Prentice Hall Inc., 2011 ISBN-13 : 978-0132447270

6.	Practical clothing construction	Mary Mathews	Cosmic Press Chennai 1986
7.	Pattern Grading for women's clothing	Gerry cooking	Blackwell Science Ltd. 1990. ISBN 13: 9780632022953
8.	Zarapker system of cutting	Zarapker	Navneet Publications Ltd. 2006

**(b) Online Educational Resources:**

1. <https://www.slideshare.net/biniyaa1/concept-of-pattern-draping>
2. <https://www.slideshare.net/Lavanyaappu/draping>
3. [https://oms.bdu.ac.in/ec/admin/contents/41\\_16SACFT4\\_2020052511091337.pdf](https://oms.bdu.ac.in/ec/admin/contents/41_16SACFT4_2020052511091337.pdf)
4. <https://www.slideshare.net/BalaKumar94/pattern-grading>
5. <http://www.scribd.com/doc/8000105/Draping>
6. <http://www.scribd.com/doc/32332885/Art-of-Fashion-Draping>
7. <http://cactusfashion.wordpress.com/2009/07/18/principles-of-draping-for-balanced-patterns/>
8. <http://sewchicago.wordpress.com/2010/09/19/draped-to-fit/>

**Note:** Teachers are requested to check the Creative Commons license status/ financial implications of the suggested, online educational resources before use by the students.

**(c) Others:**

1. Lab Manuals
2. [https://cbseacademic.nic.in/web\\_material/doc/fashion\\_studies/3\\_xii\\_text\\_book.pdf](https://cbseacademic.nic.in/web_material/doc/fashion_studies/3_xii_text_book.pdf)

\*\*\*\*\*

- A) **Course Code** : 2400108(T2400108)
- B) **Course Title** : Essence of Indian Knowledge System and Tradition  
(Common for all Programmes)
- C) **Pre- requisite Course(s)** :
- D) **Rationale** :

This course will survey the basic structure and operative dimensions of Indian knowledge system. With the new education policy-NEP 2020 focusing on Indian Knowledge Systems (IKS) and Traditions of India. This course introduces the learners to the rich and varied knowledge traditions of India from antiquity to the present. This also helps the learner to know and understand their own systems and traditions which are imperative for any real development and progress. Also, it helps the learner to think independently and originally adopting Indian frameworks and models for solving the problems related to world of work where the student is supposed to perform.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of following course out comes by the learners. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor and Affective) in classroom/laboratory/workshop/field/ industry.

**After completion of the course, the students will be able to-**

**CO-1** Identify the rich heritage and legacy residing in our Indian Knowledge systems.

**CO-2** Correlate the technological & philosophical concepts of IKS with engineering domain specific problems and local problems for finding out possible solutions.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Programme Outcomes (POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2
CO-1	2	-	-	-	1	1	1		
CO-2	1	2	2	-	3	1	1		

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\*PSOs will be developed by respective programme coordinator at institute level. As per latest NBA guidelines, formulating PSOs is optional

- G) **Teaching & Learning Scheme:**

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					Total Credits (C)
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	
			L	T				
	2400108	Essence of Indian Knowledge System and Tradition	01	-	-	01	01	01

**Legend:**

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture(L), Tutorial(T), Case method, Demonstrations, Video demonstration, Problem based learning etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro projects, industrial visits, any other student activities etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources etc.

C: Credits= (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of teacher to ensure outcome of learning.

**H) Assessment Scheme:**

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
	<b>2400108</b>	Essence of Indian Knowledge System and Tradition	25	-	-	-	-	-	25

**Legend:**

PTA: Progressive Theory Assessment in class room (includes class test, mid-term test and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Term work & Self Learning Assessment (Includes assessment related to student performance in assignments, seminars, micro projects, industrial visits, self-learning, any other student activities etc.)

**Note:**

- ETA & ELA are to be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignment, micro project, seminar and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria of internal as well as external assessment may vary as per the requirement of respective course. For valid and reliable assessment, the internal faculty should prepare checklist & rubrics for these activities.

**I) Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW) and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP 2020 related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS) and others must be integrated appropriately.

**J) Theory Session Outcomes (TSOs) and Units: T2400108**

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>TSO 1a.</i> Explain the architecture of the Ancient Indian Knowledge Systems.</p> <p><i>TSO 1b.</i> List the salient features of IKS.</p> <p><i>TSO 1c.</i> Comprehend the given IKS model.</p> <p><i>TSO 1d.</i> Identify the role and relevance of the given IKS model in contemporary society.</p>	<p><b>Unit-1.0 Introduction to Indian Knowledge Systems</b></p> <p>1.1 Overview of IKS</p> <p>1.2 Organization of IKS – चतुर्दश-विद्यास्थानं</p> <p>1.3 Conception and Constitution of Knowledge in Indian Tradition</p> <p>1.4 The Oral Tradition</p> <p>1.5 Models and Strategies of IKS</p>	<b>CO1</b>
<p><i>TSO 2a.</i> Enlist the importance of Veda, Vedanga, Visaya, Siksaka.</p> <p><i>TSO 2b.</i> Describe the given IKS domain.</p> <p><i>TSO 2c.</i> Identify elements of mentioned IKS domains that are relevant to Technical Education System.</p> <p><i>TSO 2d.</i> Correlate the elements of mentioned IKS domains with given engineering domain.</p>	<p><b>Unit-2.0 Overview of IKS Domains and Relevance in Current Technical Education System.</b></p> <p>2.1 The Vedas as the basis of IKS</p> <p>2.2 Overview of all the six Vedāṅgas</p> <p>2.3 Relevance of following IKS domains in present Technical Education System:</p> <ul style="list-style-type: none"> <li>• Arthashastra (Indian economics and political systems)</li> <li>• Ganita and Jyamiti (Indian Mathematics, Astronomy and Geometry)</li> <li>• Rasayana (Indian Chemical Sciences)</li> <li>• Ayurveda (Indian Biological Sciences / Diet &amp; Nutrition)</li> <li>• Jyotish Vidya (Observational astronomy and calendar systems)</li> <li>• Prakriti Vidya (Indian system of Terrestrial/ Material Sciences/ Ecology and Atmospheric Sciences)</li> <li>• Vastu Vidya (Indian system of Aesthetics- Iconography and built-environment /Architecture)</li> <li>• Nyaya Shastra (Indian systems of Social Ethics, Logic and Law)</li> <li>• Shilpa and Natya Shastra (Indian Classical Arts: Performing and Fine Arts)</li> <li>• Sankhya and Yoga Darshna (Indian psychology, Yoga and consciousness studies)</li> <li>• Vrikshayurveda (Plant Science / Sustainable agriculture/food preservation methods)</li> </ul>	<b>CO1, CO2</b>

**Note:** One major TSO may require more than one Theory session/Period.

**K) Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: (Not Applicable)**

**L) Suggested Term Work and Self Learning:** Some sample suggested assignments, micro project and other activities are mentioned here for reference.

**a. Assignments:** Questions/Problems/Numerical/Exercises to be provided by the course teacher in line with the targeted COs.

**b. Micro Projects:**

1. Write a report on any IKS domain highlighting the correlation with one domain specific engineering course.

**c. Other Activities:**

1. Seminar Topics: discuss any one IKS domain in details a highlighting the eminent works in the area.

2. Visits:

- Visit any nearby ancient temple and correlate the geometical, Shilpa and Vaastu on IKS dimensions specified in each domain.

3. Self-learning topics:

- Sustainable practices adopted in ancient India that can be applied for current engineering situations.

**M) Suggested Course Evaluation Matrix:** The course teacher has to decide and use appropriate assessment strategy and its weightage in theory, laboratory and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

COs	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test	End Theory Assessment (ETA)	Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
			Assignments	Micro Projects	Other Activities*		
CO-1	-	-	-	-	-	-	-
CO-2	100%	-	100%	100%	100%	-	-
Total Marks	25	-	5	10	10	-	-
			25				

**Legend:**

\*: Other Activities include self- learning, seminar, visits, surveys, product development, software development etc.

\*\* : Mentioned under point- (N)

#: Mentioned under point-(O)

**Note:**

- The percentage given are approximate
- In case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided in all those COs mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises of questions related to achievement of each COs.

**N) Suggested Specification Table for End Semester Theory Assessment: (Not Applicable)**

**O) Suggested Assessment Table for Laboratory (Practical): (Not Applicable)**

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lecture, Tutorial, Case Method, Group Discussion, Industrial visits, Industrial Training, Field Trips, Portfolio Based, Learning, Role Play, Live Demonstrations in Classrooms, Lab, Field Information and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software: (Not Applicable)**

**R) Suggested Learning Resources:****(a) Books:**

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	Introduction to Indian Knowledge System: Concepts and Applications	Archak, K.B. (2012).	Kaveri Books, New Delhi
2.	Introduction to Indian Knowledge System: Concepts and Applications	Mahadevan, B. Bhat, Vinayak Rajat Nagendra Pavana R.N.	PHI, ISBN: 9789391818203
3.	Glimpse into Kautilya's Arthashastra	Ramachandrudu P. (2010)	Sanskrit Academy, Hyderabad
4.	"Introduction" in Studies in Epics and Purāṇas, (Eds.)	KM Munshi and N Chandrashekara Aiyer	Bhartiya Vidya Bhavan

**(b) Online Educational Resources:**

1. <http://bhavana.org.in>
2. [www.academia.edu/23254393/Science\\_in\\_Ancient\\_India\\_-\\_an\\_educational\\_module](http://www.academia.edu/23254393/Science_in_Ancient_India_-_an_educational_module)
3. [www.academia.edu/23305766/Technology\\_in\\_Ancient\\_India\\_-\\_Michel\\_Danino](http://www.academia.edu/23305766/Technology_in_Ancient_India_-_Michel_Danino)
4. [www.hamsi.org.nz/http://insaindia.res.in/journals/ijhs.php](http://www.hamsi.org.nz/http://insaindia.res.in/journals/ijhs.php)
5. [www.niscair.res.in/sciencecommunication/ResearchJournals/rejour/ijtk/ijtk0.asp](http://www.niscair.res.in/sciencecommunication/ResearchJournals/rejour/ijtk/ijtk0.asp)
6. [www-history.mcs.st-andrews.ac.uk/Indexes/Indians.html](http://www-history.mcs.st-andrews.ac.uk/Indexes/Indians.html)

**Note:** Teachers are requested to check the creative commons license status/ financial implications of the suggested, online educational resources before use by the students.

**(c) Others:**

1. Swami Harshananda. "A bird's eye view of vedas". R K Math. Bangalore., <http://rkmathbangalore.org/Books/ABirdsEyeViewOfTheVedas.pdf>.
2. Sanskrit Prosody, [https://en.wikipedia.org/wiki/Sanskrit\\_prosody](https://en.wikipedia.org/wiki/Sanskrit_prosody).
3. Vartak, P.V. (1995). "Veda and Jyotish," Part II, Chapter 2, in Issues in Veda and Astrology, H Pandya (Ed.), pp 65 – 73.
4. Sundaram, A.V. (1995). "Astrology: Its usefulness and Limitations in ModernTimes", Part II, Chapter 9, in Issues in Veda and Astrology, H Pandya (Ed.), pp 129 – 135.
5. Archak, K.B. (2012), "The Vedāṅga Literature", Chapter VIII in Essentials of Vedic Literature, Kaveri Books, New Delhi, pp 330 – 391.
6. Vasant Lad (1996), "Ayurveda: A Brief Introduction and Guide", (whole article).

\*\*\*\*\*

- A) **Course Code** : 2400207(T2400207)  
 B) **Course Title** : Indian Constitution (Common for all Programmes)  
 C) **Pre- requisite Course(s)** :  
 D) **Rationale** :

This course will focus on the basic structure and operative dimensions of Indian Constitution. It will explore various aspects of the Indian political and legal system from a historical perspective highlighting the various events that led to the making of the Indian Constitution. The Constitution of India is the supreme law of India. The document lays down the framework demarcating the fundamental political code, structure, procedures, powers, and sets out fundamental rights, directive principles, and the duties of citizens. The course on constitution of India highlights key features of Indian Constitution that makes the students a responsible citizen. In this online course, we shall make an effort to understand the history of our constitution, the Constituent Assembly, the drafting of the constitution, the preamble of the constitution that defines the destination that we want to reach through our constitution, the fundamental right constitution guarantees through the great rights revolution, the relationship between fundamental rights and fundamental duties, the futurist goals of the constitution as incorporated in directive principles and the relationship between fundamental rights and directive principles.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of following course out comes by the learners. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor and Affective) in classroom/laboratory/workshop/field/ industry.

**After completion of the course, the students will be able to-**

- CO-1** List salient features and characteristics of the constitution of India.  
**CO-2** Follow fundamental rights and duties as responsible citizen and engineer of the country.  
**CO-3** Analyze major constitutional amendments in the constitution.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Programme Outcomes (POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2
CO-1	1	-	-	-	2	-	-		
CO-2	1	-	-	-	2	-	-		
CO-3	1	2	-	-	2	-	1		

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\* PSOs will be developed by respective programme coordinator at institute level. As per latest NBA guidelines, formulating PSOs is optional

## G) Teaching &amp; Learning Scheme:

Board of Study	Course Code	Course Title	Scheme of Study (Hours/Week)					
			Classroom Instruction (CI)		Lab Instruction (LI)	Notional Hours (TW+ SL)	Total Hours (CI+LI+TW+SL)	Total Credits (C)
			L	T				
	2400207	Indian Constitution	01	-	-	01	01	01

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture(L), Tutorial(T), Case method, Demonstrations, Video demonstration, Problem based learning etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro projects, industrial visits, any other student activities etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources etc.

C: Credits= (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of teacher to ensure outcome of learning.

## H) Assessment Scheme:

Board of Study	Course Code	Course Title	Assessment Scheme (Marks)						Total Marks (TA+TWA+LA)
			Theory Assessment (TA)		Term Work & Self-Learning Assessment (TWA)		Lab Assessment (LA)		
			Progressive Theory Assessment (PTA)	End Theory Assessment (ETA)	Internal	External	Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)	
	2400207	Indian Constitution	25	-	25	-	-	-	50

## Legend:

PTA: Progressive Theory Assessment in class room (includes class test, mid-term test and quiz using online/offline modes)

PLA: Progressive Laboratory Assessment (includes process and product assessment using rating Scales and rubrics)

TWA: Term work & Self Learning Assessment (Includes assessment related to student performance in assignments, seminars, micro projects, industrial visits, self-learning, any other student activities etc.)

## Note:

- ETA & ELA are to be carried out at the end of the term/ semester.
- Term Work is to be done by the students under the guidance of internal faculty but its assessment will be done **internally (40%)** as well as **externally (60%)**. Assessment related to planning and execution of Term Work activities like assignment, micro project, seminar and self-learning is to be done by internal faculty (Internal Assessment) whereas assessment of output/product/ presentation related to these activities will be carried out by external faculty/expert (External Assessment). However, criteria of internal as well as external assessment may vary as per the requirement of respective course. For valid and reliable assessment, the internal faculty should prepare checklist & rubrics for these activities.

I) **Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW) and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP 2020 related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS) and others must be integrated appropriately.

J) **Theory Session Outcomes (TSOs) and Units: T2400207**

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
TSO 1a. Explain the meaning of preamble of the constitution. TSO 1b. List the salient features of constitution. TSO 1c. List the characteristics of constitution.	<b>Unit-1.0 Constitution and Preamble</b>  1.1 Meaning of the constitution of India. 1.2 Historical perspective of the Constitution of India. 1.3 Salient features and characteristics of the Constitution of India. 1.4 Preamble to the Constitution of India.	<b>CO1</b>
TSO 2a. Enlist the fundamental rights. TSO 2b. Identify fundamental duties in general and in particular with engineering field. TSO 2c. identify situations where directive principles prevail over fundamental rights.	<b>Unit-2.0 Fundamental Rights and Directive Principles</b>  2.1 Fundamental Rights under Part-III. 2.2 Fundamental duties and their significance. 2.3 Relevance of Directive Principles of State Policy under part-IV.	<b>CO2</b>
TSO 3a. Enlist the constitutional amendments. TSO 3b. Analyze the purposes of various amendments.	<b>Unit-3.0 Governance and Amendments</b>  3.1 Amendment of the Constitutional Powers and Procedure  3.2 Major Constitutional Amendment procedure - 42nd, 44th, 74th, 76th, 86th and 91st	<b>CO3</b>

**Note:** One major TSO may require more than one Theory session/Period.

K) **Suggested Laboratory (Practical) Session Outcomes (LSOs) and List of Practical: (Not Applicable)**

L) **Suggested Term Work and Self Learning:** Some sample suggested assignments, micro project and other activities are mentioned here for reference.

a. **Assignments:** Questions/Problems/Numerical/Exercises to be provided by the course teacher in line with the targeted COs.

b. **Micro Projects:**

1. Role of Media in Spreading Awareness regarding Fundamental Rights
2. Analysis of Situations where directive principle of State policy has prevailed over Fundamental rights
3. Analyze 42nd and 97th Amendment of Indian Constitution

**c. Other Activities:**

1. Seminar Topics:
  - Democracy and Political Participation in India
  - Situations where directive principles prevail over fundamental rights.
2. Visits:
  - Arrange Mock Parliament.
3. Design games and simulation on emergencies declared in last thirty years.
4. Group discussions on current print articles.
  - Adoption of Article 365 in India.
  - Need of amendments in the constitution.
5. Prepare collage/posters on current constitutional issues.
  - Emergencies declared in India
  - Seven fundamental rights
6. Cases: Suggestive cases for usage in teaching:

Case	Relevance
A.K. Gopalan Case (1950)	SC contended that there was no violation of Fundamental Rights enshrined in Articles 13, 19, 21 and 22 under the provisions of the Preventive Detention Act, if the detention was as per the procedure established by law. Here, the SC took a narrow view of Article 21.
Shankari Prasad Case (1951)	This case dealt with the amendability of Fundamental Rights (the First Amendment's validity was challenged). The SC contended that the Parliament's power to amend under Article 368 also includes the power to amend the Fundamental Rights guaranteed in Part III of the Constitution.
Minerva Mills case (1980)	This case again strengthens the Basic Structure doctrine. The judgement struck down 2 changes made to the Constitution by the 42nd Amendment Act 1976, declaring them to violate the basic structure. The judgement makes it clear that the Constitution, and not the Parliament is supreme.
Maneka Gandhi case (1978)	A main issue in this case was whether the right to go abroad is a part of the Right to Personal Liberty under Article 21. The SC held that it is included in the Right to Personal Liberty. The SC also ruled that the mere existence of an enabling law was not enough to restrain personal liberty. Such a law must also be "just, fair and reasonable."

**7. Self-learning topics:**

- Parts of the constitution and a brief discussion of each part.
- Right to education.
- Right to equality.

**M) Suggested Course Evaluation Matrix:** The course teacher has to decide and use appropriate assessment strategy and its weightage in theory, laboratory and Term Work for ensuring CO attainment. The response/performance of each student in each of these designed activities is to be used to calculate **CO attainment**.

COs	Course Evaluation Matrix						
	Theory Assessment (TA)**		Term Work Assessment (TWA)			Lab Assessment (LA)#	
	Progressive Theory Assessment (PTA) Class/Mid Sem Test	End Theory Assessment (ETA)	Term Work & Self Learning Assessment			Progressive Lab Assessment (PLA)	End Laboratory Assessment (ELA)
Assignments			Micro Projects	Other Activities*			
CO-1	30%	-	30%	-	-	-	-
CO-2	40%	-	40%	50%	50%	-	-
CO-3	30%	-	30%	50%	50%	-	-
<b>Total Marks</b>	<b>25</b>	<b>-</b>	<b>5</b>	<b>10</b>	<b>10</b>	<b>-</b>	<b>-</b>
			<b>25</b>				

**Legend:**

\*: Other Activities include self- learning, seminar, visits, surveys, product development, software development etc.

\*\* : Mentioned under point- (N)

# : Mentioned under point-(O)

**Note:**

- The percentage given are approximate
- In case of Micro Projects and End Laboratory Assessment (ELA), the achieved marks will be equally divided in all those COs mapped with total experiments.
- For CO attainment calculation indirect assessment tools like course exit survey need to be used which comprises of questions related to achievement of each COs.

**N) Suggested Specification Table for End Semester Theory Assessment: (Not Applicable)**

**O) Suggested Assessment Table for Laboratory (Practical): (Not Applicable)**

**P) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lecture, Tutorial, Case Method, Group Discussion, Industrial visits, Industrial Training, Field Trips, Portfolio Based, Learning, Role Play, Live Demonstrations in Classrooms, Lab, Field Information and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**Q) List of Major Laboratory Equipment, Tools and Software: (Not Applicable)**

**R) Suggested Learning Resources:**

**(a) Books:**

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	The Constitution of India	P.M.Bakshi	Universal Law Publishing, New Delhi 15th edition, 2018, ISBN: 9386515105
2.	Introduction to Indian Constitution	D.D.Basu	Lexis Nexis Publisher, New Delhi, 2015, ISBN:935143446X
3.	Introduction to Constitution of India	B. K. Sharma	PHI, New Delhi, 6th edition, 2011, ISBN:8120344197
4.	The Constitution of India	B.L. Fadia	Sahitya Bhawan, Agra, 2017, ISBN:8193413768
5.	The Constitutional Law of India	Durga Das Basu	LexisNexis Butterworths Wadhwa, Nagpur 978-81-8038-426-4

**(b) Online Educational Resources:**

1. <https://www.coursera.org/learn/principles-of-management>
2. <http://www.legislative.gov.in/constitution-of-india>
3. [https://en.wikipedia.org/wiki/Constitution\\_of\\_India](https://en.wikipedia.org/wiki/Constitution_of_India)
4. <https://www.india.gov.in/my-government/constitution-india>
5. <https://eci.gov.in/about/about-eci/the-setup-r1/>
6. <https://www.toppr.com/guides/civics/the-indian-constitution/the-constitution-of-india/>
7. <https://main.sci.gov.in/constitution>
8. <https://nios.ac.in/media/documents/srsec317newE/317EL8.pdf>
9. <https://legallaffairs.gov.in/sites/default/files/chapter%203.pdf>
10. [https://www.concourt.am/armenian/legal\\_resources/world\\_constitutions/constit/india/india-e.htm](https://www.concourt.am/armenian/legal_resources/world_constitutions/constit/india/india-e.htm)
11. <https://constitutionnet.org/vl/item/basic-structure-indian-constitution>

**Note:** Teachers are requested to check the creative commons license status/ financial implications of the suggested, online educational resources before use by the students.

**(c) Others:**

\*\*\*\*\*

- A) **Course Code** : 2400009(T2400009)
- B) **Course Title** : Open Educational Resources (OER) (Non-Exam Course)  
(FTS, CHE, CSE, EE, ME, ME (Auto), MIE, ELX, AIML, CRE, CACDDM, FPP, GT)
- C) **Pre- requisite Course(s)** :
- D) **Rationale** :

Open educational resources (OER) are openly-licensed, freely available educational materials that can be modified and redistributed by users. Learning about Open Educational Resources (OER), copyright, and Creative Commons licenses is a valuable endeavor for content creators, users, and anyone interested in sharing knowledge and creative works. Creative Commons licenses, offer a standardized way to grant permissions for the use and sharing of creative works. Learning about OER, copyright, and Creative Commons licenses is an ongoing process. As these fields evolve, it's important to stay informed and continue exploring new resources and practices.

After going through this course, students will at first place have reasonable idea to explore and use various OERs useful for their course of study and secondly, be motivated for fair use of resources available to them on various platform by understanding the restrictions and legal issues related to copyright and other licensing policies.

- E) **Course Outcomes (COs):** After the completion of the course, teachers are expected to ensure the accomplishment of following course outcomes by the learners. For this, the learners are expected to perform various activities related to three learning domains (Cognitive, Psychomotor and Affective) in classroom/ laboratory/ workshop/ field/ industry.

**After completion of the course, the students will be able to-**

- CO-1** Use Open Educational Resources (OER) after their evaluation
- CO-2** Use copyright material appropriately.
- CO-3** Implement suitable Creative Common License.

- F) **Suggested Course Articulation Matrix (CAM):**

Course Outcomes (COs)	Programme Outcomes(POs)							Programme Specific Outcomes* (PSOs)	
	PO-1 Basic and Discipline Specific Knowledge	PO-2 Problem Analysis	PO-3 Design/ Development of Solutions	PO-4 Engineering Tools	PO-5 Engineering Practices for Society, Sustainability and Environment	PO-6 Project Management	PO-7 Life Long Learning	PSO-1	PSO-2
CO-1	-	2	-	-	3	-	3		
CO-2	-	2	-	-	3	-	3		
CO-3	-	3	-	-	3	-	3		

**Legend:** High (3), Medium (2), Low (1) and No mapping (-)

\* PSOs will be developed by respective programme coordinator at institute level. As per latest NBA guidelines, formulating PSOs is optional

## G) Teaching &amp; Learning Scheme:

Course Title	Scheme of Study (Hours/Week)				
	Classroom Instruction (CI)		Notional Hours (TW/ Activities+ SL)	Total Hours (CI+TW/ Activities)	Total Credits (C)
	L	T			
Open Educational Resources	01	-	-	01	01

## Legend:

CI: Classroom Instruction (Includes different instructional/implementation strategies i.e. Lecture (L), Tutorial (T), Case method, Demonstrations, Video demonstration, Problem based learning etc. to deliver theoretical concepts)

LI: Laboratory Instruction (Includes experiments/practical performances /problem-based experiences in laboratory, workshop, field or other locations using different instructional/Implementation strategies)

Notional Hours: Hours of engagement by learners, other than the contact hours for ensuring learning.

TW: Term Work (includes assignments, seminars, micro projects, industrial visits, any other student activities etc.)

SL: Self Learning, MOOCs, spoken tutorials, online educational resources etc.

C: Credits = (1 x CI hours) + (0.5 x LI hours) + (0.5 x Notional hours)

**Note:** TW and SL have to be planned by the teacher and performed by the learner under the continuous guidance and feedback of teacher to ensure outcome of learning.

H) **Course Curriculum Detailing:** This course curriculum detailing depicts learning outcomes at course level and session level and their attainment by the students through Classroom Instruction (CI), Laboratory Instruction (LI), Term Work (TW) and Self Learning (SL). Students are expected to demonstrate the attainment of Theory Session Outcomes (TSOs) and Lab Session Outcomes (LSOs) leading to attainment of Course Outcomes (COs) upon the completion of the course. While curriculum detailing, NEP 2020 related reforms like Green skills, Sustainability, Multidisciplinary aspects, Society connect, Indian Knowledge System (IKS) and others must be integrated appropriately.

## I) Theory Session Outcomes (TSOs) and Units: T2400009

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>TSO 1a.</i> Explain the difference between OER and other free educational materials.</p> <p><i>TSO 1b.</i> Describe the challenges and benefits of using OER in a class.</p> <p><i>TSO 1c.</i> Apply various aspects of evaluating OER before use</p> <p><i>TSO 1d.</i> Explain necessity to assess an OER's adaptability.</p> <p><i>TSO 1e.</i> Use preliminary search for open educational resource.</p> <p><i>TSO 1f.</i> Find OER using various resources.</p>	<p><b>Unit-1.0 Open Educational Resources</b></p> <p>1.1 OER - definition</p> <p>1.2 What is NOT OER.</p> <p>1.3 Benefits of using OER – Benefits to Students - Access to Quality Education</p> <p>1.4 OER - Benefits to Faculty - Use, Improve and Share, Network and collaborate with peers, Lower Cost, Improve access to information</p> <p>1.5 Challenges of Using OER – Subject Availability, Format and Material type availability, Time and Support availability</p> <p>1.6 Evaluating OER – a) Clarity, Comprehensibility, and Readability, b) Content and Technical Accuracy, c) Adaptability and Modularity, d) Appropriateness and Fit, e) Accessibility</p> <p>1.7 Finding Open Content - OER Search Scenario Filter by Usage Rights in Google, Repositories and Search Tools, Subject-specific Repositories</p>	<p><b>CO1</b></p>

Major Theory Session Outcomes (TSOs)	Units	Relevant COs Number(s)
<p><i>TSO 2a.</i> Explain benefits of copyright protection for creator</p> <p><i>TSO 2b.</i> Explain exceptions and limitations to copyright law</p> <p><i>TSO 2c.</i> List rights granted to copyright holders.</p> <p><i>TSO 2d.</i> Explain Exceptions and limitations to copyright law</p> <p><i>TSO 2e.</i> Explain Fair use/fair dealing apply to copyright</p> <p><i>TSO 2f.</i> Elaborate Public domain and how does it relate to copyright</p> <p><i>TSO 2g.</i> Elaborate penalties for copyright infringement.</p> <p><i>TSO 2h.</i> Explain copyright for digital content and the internet.</p> <p><i>TSO 2i.</i> Explain use of copyrighted works in education</p> <p><i>TSO 2j.</i> Explain the use of free licenses</p>	<p><b>Unit-2.0 Copyright and Open Licensing</b></p> <p>2.1 Copyright and what it does protect, benefits of copyright protection for creators, duration of copyright protection last, rights granted to copyright holders.</p> <p>2.2 Exceptions and limitations to copyright law, fair use/fair dealing apply to copyright</p> <p>2.3 Public domain and its relation to copyright.</p> <p>2.4 Penalties for copyright infringement</p> <p>2.5 Apply copyright to digital content and the internet</p> <p>2.6 Use of copyrighted works in education.</p> <p>2.7 Open Licenses – GNU – Free Documentation license, Free Art License</p> <p>2.8 Why Free Licenses – Retain, Reuse, Revise, Remix, Redistribute</p>	<p><b>CO2</b></p>
<p><i>TSO 3a.</i> Describe the four different Creative Commons License components.</p> <p><i>TSO 3b.</i> Explain the reason some CC-licensed content might not be considered OER.</p> <p><i>TSO 3c.</i> Explain the Strength and weakness of four Open CC Licenses</p> <p><i>TSO 3d.</i> Choose the right Creative Commons license for work.</p> <p><i>TSO 3e.</i> Apply a Creative Commons license to existing work.</p> <p><i>TSO 3f.</i> Use of Creative Commons licenses for commercial purposes.</p> <p><i>TSO 3g.</i> Modify a work licensed under Creative Commons.</p> <p><i>TSO 3h.</i> Revoke a Creative Commons license, combine works with different Creative Commons licenses</p> <p><i>TSO 3i.</i> Differentiate between Attribution and Citation</p>	<p><b>Unit-3.0 Creative Common Licenses</b></p> <p>3.1 Alternatives to copyright as Creative Commons licenses.</p> <p>3.2 Four components of creative common Licenses – Attribution, Share- Alike, Non – commercial, No Derivatives</p> <p>3.3 Choosing a Creative common licenses – Wiley’s 5 Rs and Creative Common Licenses</p> <p>3.4 Four Open CC Licenses and Their Strengths and Weaknesses – (a) CC BY (b) CC BY SA (c) CC BY NC (d) CC BY NC SA</p> <p>3.5 Attribution Vs Citation - Creative Commons licensed work without giving attribution</p> <p>3.6 Apply a CC License - choose the right Creative Commons license for work, apply a Creative Commons license to existing work, Creative Commons licenses be used for commercial purposes, modify a work licensed under Creative Commons, revoke a Creative Commons license, combine works with different Creative Commons licenses</p>	<p><b>CO3</b></p>

**Note:** One major TSO may require more than one Theory session/Period.

**J) Suggested Term Work/ Activities and Self Learning:** Some sample suggested assignments, micro project and other activities are mentioned here for reference.

**a. Assignments:**

**Related to Open Educational Resources – CO1**

- i. OER help to reduce the cost of education for students. Justify?
- ii. Explain why it is necessary to assess an OER’s adaptability?
- iii. Identify four search tools for finding open educational resources?
- iv. Identify at least two search tools for finding openly licensed media?

**Related to Copyright – CO2**

- i. Explain copyright and what does it protect
- ii. Explain the rights granted to copyright holders
- iii. Describe the exceptions and limitations to copyright law
- iv. Elaborate the way fair use/fair dealing apply to copyright?
- v. Describe the public domain and its relationship with copyright
- vi. Elaborate the penalties for copyright infringement?
- vii. Explain copyright apply to digital content and the internet
- viii. Explain the way copyright law address the use of copyrighted works in education

**Related to Creative Common Licenses – CO3**

- i. Explain various Creative Commons licenses
- ii. Describe, how can you apply a Creative Commons license to your existing work?
- iii. Explain the benefits of using Creative Commons licenses?
- iv. Elaborate, how you can modify a work licensed under Creative Commons?
- v. Are Creative Commons licenses valid worldwide?
- vi. Elaborate how Creative Commons license can be revoked, once it has been applied to your work?
- vii. Explain, how anyone use a Creative Commons licensed work without giving attribution?
- viii. Explain the limitations/restrictions while using works with Creative Commons licenses?

**b. Micro Projects:**

1. Collect information on the impact of OER on cost savings and student engagement.
2. Search at least four OER related to topic of your Engineering Discipline over Internet. Evaluate the material based on the relevance, accuracy and usability.
3. Explore the different types of resources under creative Commons licenses (e.g., CC BY, CC BY-SA, CC BY-NC, etc.) and their specific permissions and restrictions.
4. Create a comparative analysis chart or infographic that visually represents the key characteristics of each license.
5. Select minimum 5 real-world examples from different domains (such as music, art, literature, or education) where creators have used Creative Commons licenses.

**c. Other Activities:**

1. Seminar Topics:
  - OER Quality Assurance
  - OER Repositories and Platforms
  - Creative Commons and Digital Media
  - Creative Commons in the Visual Arts
  - Examine the legal implications of using Creative Commons licenses, including the obligations and responsibilities of both creators and users and present it.
2. Self-learning topics:
  - Open Licensing and Copyright: Understanding the Legal Framework for OER
  - Creative Commons and the future of Copyright
  - Copyright and Open Access Publishing
  - Copyright and Software

**K) Suggested Instructional/Implementation Strategies:** Different Instructional/ Implementation Strategies may be appropriately selected, as per the requirement of the content/outcome. Some of them are Improved Lecture, Tutorial, Case Method, Group Discussion, Portfolio Based, Learning, Role Play, Live Demonstrations in Classrooms, Field Information and Communications Technology (ICT)Based Teaching Learning, Blended or flipped mode, Brainstorming, Expert Session, Video Clippings, Use of Open Educational Resources (OER), MOOCs etc.

**L) List of Major Laboratory Equipment, Tools and Software: (If Any)**

S. No.	Name of Equipment, Tools and Software	Broad Specifications
1.	Computers	Desktop computer with word processing and presentation facility
2.	Internet	Internet Connectivity

**M) Suggested Learning Resources:**

**(a) Books:**

S. No.	Titles	Author(s)	Publisher and Edition with ISBN
1.	The OER Starter Kit.	Abbey Elder - 2019	IA: Iowa State University Digital Press, available under a Creative Commons Attribution 4.0 International License. Retrieved from <a href="http://iastate.pressbooks.pub/oerstarterkit">iastate.pressbooks.pub/oerstarterkit</a>
2.	A Brief History of Open Educational Resources	Bliss, T J and Smith, M. - 2017	In: Jhangiani, R S and Biswas-Diener, R. (Eds.) Open: The Philosophy and Practices that are Revolutionizing Education and Science (pp. 9–27). London: Ubiquity Press. DOI: <a href="https://doi.org/10.5334/bbc.b">https://doi.org/10.5334/bbc.b</a> .

**Note:** Above listed books are available in soft form and can be downloaded as given respective link

**(b) Online Educational Resources:**

- OER for Empowering Teachers Instructional Material by P. Malliga is licensed under a Creative Commons Attribution 4.0 International License.
- William & Flore Hewlett Foundation. (n.d.). OER defined. Retrieved from <https://hewlett.org/strategy/open-educational-resources/>
- Free Software Foundation. (2008). GNU Free Documentation License. Retrieved from <https://www.gnu.org/licenses/fdl.html>
- Copyleft Attitude. (2007). Free Art License 1.3. Retrieved from <http://artlibre.org/licence/lal/en/>
- Free Software Foundation. (n.d.). What is copyleft? Retrieved from <https://www.gnu.org/copyleft/copyleft.html>

**Note:** Teachers are requested to check the creative commons license status/ financial implications of the suggested, online educational recourses before use by the students.

\*\*\*\*\*