

**GUJARAT TECHNOLOGICAL UNIVERSITY, AHMEDABAD, GUJARAT****COURSE CURRICULUM****COURSE TITLE: CAD-II****(COURSE CODE: -3355103)**

<b>Diploma Programmes in which this course is offered</b>	<b>Semester in which offered</b>
Computer Aided costume Design and Dress Making	5 <sup>th</sup> Semester

**1. RATIONALE**

This course focuses on development of skills in students related to pattern grading and marker planning on computer using CAD software. On completion of the course student would appreciate the need and importance of marker planning in cutting department. Also they can carry out the comparative analysis of the manual pattern grading & marker planning over CAD system.

**2. LIST OF COMPETENCY ( Programme Outcome according to NBA terminology)**

The course content should be taught with the aim to develop required skills so that students are able to acquire following competency:

- **Carry out pattern grading and marker planning using CAD software.**

**3. COURSE OUTCOMES**

The theory should be taught and practical should be carried out in such a manner that students are able to acquire different learning outcomes in cognitive, psychomotor and affective domain to demonstrate following course outcomes.

- Grade the blocks for different type of Garments
- Analyse the measurement of patterns of different garments
- Create the marker for different types of garments

#### 4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P)	Examination Scheme				
				Theory Marks		Practical Marks		Total Marks
L	T	P	C	ESE	PA	ESE	PA	100
0	0	4	4	0	0	40	60	

**Legends:** L-Lecture; T – Tutorial/Teacher Guided Theory Practice; P -Practical; C – Credit  
ESE -End Semester Examination; PA - Progressive Assessment.

#### 5. DETAILED COURSE CONTENT

Unit	Major Learning Outcomes ( in cognitive domain)	Topics and Sub-topics
<b>Unit-I Introduction of Grading</b>	1a. Apply grading using computer	1.1 Grading tools (Creating grading size table & apply grading value based on grading rules.)  Assignment : application of grading tools in Garment like skirt, trouser , basic bodice and shirt
<b>Unit-II Measuring tools</b>	2a. Take measurement using appropriate measuring tools	2.1 Presentation of Garment and Measurement analysis.
<b>Unit-III Introduction of marker planning</b>	3a. Apply advanced tools related to marker planning	3.1 Marker Making style & Fabric for Marker planning 3.2 Preparation for Lay planning 3.2.1 Blocking and buffering of pieces 3.2.2 Rotation and tilting 3.2.3 Alteration 3.2.4 Matching of pieces in stripes and checks etc. 3.3 Cut order planning Sizes, lay length and ratio as per the table length. 3.4 Automatic marker planning 3.5 Exploration of the commands with assignment (Marker Planning for formal Trouser, shirt etc.)

## 6. SUGGESTED SPECIFICATION TABLE WITH HOURS & MARKS (THEORY)

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## 7. SUGGESTED LIST OF EXERCISES/PRACTICAL

The practical/exercises should be properly designed and implemented with an attempt to develop different types of skills (*outcomes in psychomotor and affective domain*) so that students are able to acquire the competencies/course outcomes. Following is the list of practical exercises for guidance.

*Note: outcomes in psychomotor domain are listed here as practical/exercises. However, if these practical/exercises are completed appropriately, they would also lead to development of certain outcomes in affective domain which would in turn lead to development of **Course Outcomes** related to affective domain. Thus over all development of **Programme Outcomes** (as given in a common list at the beginning of curriculum document for this programme) would be assured.*

*Faculty members should refer to that common list and should ensure that students also acquire outcomes in affective domain which are required for overall achievement of Programme Outcomes/Course Outcomes.*

S. No.	Unit No.	Practical/Exercises (outcomes in Psychomotor Domain)	Approx. Hours
1	I	Grade the basic bodice block for female one size up and one size down as per given size chart and measurement. (Size 32", 34", 36" on fabric width 45")	4
2	I	Grade the Skirt block of all pattern one size up and one size down as per given size chart and measurement. (Size 32", 34", 36" on fabric width 45")	4
3	I	Grade the Shirt block of all pattern one size up and one size down as per given size chart and measurement. (Shirt size:40", 42", 44" on fabric width 36")	8
4	I	Grade the trouser block of all pattern one size up and one size down as per given size chart and measurement. (Trouser size:32", 34", 36" on fabric width 56")	8
5	II	Analyze the measurement of all pattern of shirt and trouser	6
6	III	Create a marker on 56" fabric width and layout by taking above mentioned sizes of trouser.	6
7	III	Create a marker on 36" fabric width and layout by taking above mentioned sizes of shirt	6
8	III	Create a marker on 36" check fabric width and layout & compare with previous shirt marker by taking above	6

S. No.	Unit No.	Practical/Exercises ( outcomes in Psychomotor Domain)	Approx. Hours
		mentioned sizes of shirt.	
9	III	Create a marker with suitable parameter of fabric and layout by taking industry based pattern dress	8
<b>Total hours</b>			<b>56</b>

## 8. SUGGESTED LIST OF STUDENT ACTIVITIES

- i. Students will prepare manual pattern and digitize the same using CAD software.
- ii. Students will visit the industry and understand the importance of pattern making.

## 9. SPECIAL INSTRUCTIONAL STRATEGIES (If Any):

- i. Give students mini projects based on CAD including report writing and ask them to present it.
- ii. Give students as many exercises as possible for them to do, since this course requires practice to develop desired competency, which is very important from job point of view

## 10. SUGGESTED LEARNING ACTIVITIES

### A. List of Books

Sr. No.	Title of Book	Author	Publication
1.	Metric pattern cutting for Menswear	Winfred Aldrich	Blackwell Science
2.	How to draft Basic Pattern	Kopp Rolfo, Zelin & Gross	Fairchild Books
3.	CAD for Apparel Industry	Gerru Cookin	-
4.	Lectra & Tuka tech Manual /PDF files	-	-

### B. List of Major Equipment/ Instrument:

Digitiser, Plotter, High speed computer system and Apparel cad software

### C. List of Software/Learning Websites

- i. [www.lectra.com](http://www.lectra.com)
- ii. [www.tukatech.com](http://www.tukatech.com)
- iii. AutoCAD software

**11. COURSE CURRICULUM DEVELOPMENT COMMITTEE****Faculty Members from Polytechnics**

- **Prof. Ms. K. P. Shah**, I/c HOD, Department of CACDDM, G.G.P.Ahmedabad.
- **Dr. F. V. Kugashiya**, Lecturer, Department of CACDDM, G.G.P.Ahmedabad.
- **Dr. N. A. Nagori**, Lecturer, Department of CACDDM, Tolani foundation, Adipur.
- **Prof. Ms. M.B. Panchaliya**, Lecturer, Department of CACDDM, Sir. BPTI, Bhavnagar.

**Co-ordinator and Faculty Members from NIFT-Gandhinagar**

- **Prof. Pavan Godiwala**, Project Coordinator
- **Dr. Amar Tiwari**, Associate Professor

**Co-ordinator and Faculty Members from NITTTR**

- **Prof. Shashi Kant Gupta**, Professor and Coordinator for State of Gujarat.
- **Prof. (Mrs.) Chanchal Mehra**, Associate Professor, Department of Vocational Education and Entrepreneurship Development.