

GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)**Competency-focused Outcome-based Green Curriculum-2021 (COGC-2021)**

Semester - I

Course Title: **Drawing, Sketching & Painting**

(Course Code:4315902)

Diploma programme in which this course is offered	Semester in which offered
Textile Design	First

1. RATIONALE

The purpose of drawing is to provide each student with specific drawing media experiences and to build basic perceptual skills in terms of drawing for textile design. The student will also gain basic knowledge of the elements of design: line, value, shape/volume, texture and colour to lead to their deliberate manipulation for different types of spatial illusion, compositions, and expressive meaning.

This course introduces students to classical and contemporary drawing techniques and concepts, with emphasis on the understanding of their formal language and the fundamentals of artistic expression. It also provides knowledge regarding object drawing (Still life), different techniques of sketching, different mediums used for sketching, nature study, textures etc. Linear perspective, pictorial composition, figure/ground relationships, shading techniques, tonal value, visual perception, spatial concepts, and critical thinking skills are all emphasized extensively. Various dry drawing media, such as graphite and charcoal, are the primary tools for this class.

2. COMPETENCY

The purpose of this course is to help the student to attain the following industry identified competency through various teaching learning experiences:

- **Apply basic principles of drawing, design and color, to create specific aesthetic design**

3. COURSE OUTCOMES (COs)

The practical exercises, the underpinning knowledge and the relevant soft skills associated with the identified competency are to be developed in the student for the achievement of the following COs:

- a) Use relevant media for sketching, texture creation, pattern expression, still life drawings and sketches.
- b) Use the principles and elements of designing to create textile designs.
- c) Create two-dimensional, three dimensional designs or objects by applying relevant shading techniques.
- d) Apply the different types of repetition, radiation and balance for design creation.

4. TEACHING AND EXAMINATION SCHEME

Teaching Scheme (In Hours)			Total Credits (L+T+P/2)	Examination Scheme				Total Marks
L	T	P		Theory Marks		Practical Marks		
			C	CA	ESE	CA	ESE	
2	0	4	4	30*	70	50	50	200

(*): Out of 30 marks under the theory CA, 10 marks are for assessment of the micro-project to facilitate integration of COs and the remaining 20 marks is the average of 2 tests to be taken during the semester for assessing the attainment of the cognitive domain UOs required for the attainment of the COs.

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

5. SUGGESTED PRACTICAL EXERCISES

The following practical outcomes (PrOs) are the sub-components of the COs. These PrOs need to be attained to achieve the COs.

S. No.	Practical Outcomes (PrOs)	Unit No.	Approx. Hrs. required
1.	Draw various patterns using straight lines using pencil without help of any tools	IV	02
2.	Create minimum 4 types of different types of shades by using pencil	IV	02
3.	Draw minimum 4 types of sketches to depict different leaves	V	02
4.	Draw minimum 4 types of sketches to depict different flowers	V	02
5.	Draw minimum 4 types of sketches to depict different vegetables	V	02
6.	Draw minimum 4 types of sketches to depict different fruits	V	02
7.	Draw minimum 4 types of sketches to depict different birds	V	02
8.	Draw minimum 4 types of sketches to depict different animals	V	02
9.	Draw minimum 2 types of sketches to depict different monuments e.g. Taj Mahal, Qutub Minar etc.)	VI	04
10.	Draw minimum 4 types of sketches to depict different Trees	IV	02
11.	Draw minimum 4 types of sketches to depict different dry fruits	IV	02
12.	Draw minimum 4 types of sketches to depict different twigs	IV	02
13.	Sketch minimum 2 types of type of picture showing movement in nature (e.g. Running object , Object in motion)	II	04
14.	Create minimum 4 types of different of facial expression by line work	IV	04
15.	Create minimum 4 types of different textures	IV	02
16.	Make minimum 4 types of impressions of four different materials (wood, leaf, fabric etc.)	II	02
17.	Make minimum 4 types of expression of patterns created in nature by sketching (mud cracks, dried leaves, etc.)	II	02
18.	Sketch minimum 4 types of figures, stone carvings and wooden carvings, Foliage, fountains, boats, scenes and market scenes.	II	04
19.	Draw minimum 4 types of still life objects.	V	04

S. No.	Practical Outcomes (PrOs)	Unit No.	Approx. Hrs. required
20.	Draw minimum 2 types of still life objects with drapery	V	04
21.	Draw minimum 2 types of scene by using memory drawing	I	04
	Total		56

Note

- i. More **Practical Exercises** can be designed and offered by the respective course teacher to develop the industry relevant skills/outcomes to match the COs. The above table is only a suggestive list.
- ii. The following are some **sample** 'Process' and 'Product' related skills (more may be added/deleted depending on the course) that occur in the above listed **Practical Exercises** of this course, which are embedded in the COs and ultimately the competency.

S. No.	Sample Performance Indicators for the PrOs	Weightage in %
1	Students' understanding and mastery in different type of drawing & sketching	20
2	Implementation of various techniques used to create different type of texture, painting.	20
3	Willingness and attitude to complete different assignment	10
4	Initiative regarding innovative way to complete the assignment	20
5	Overall preparedness and progress during the assignment.	30
	Total	100

6. MAJOR EQUIPMENT/ INSTRUMENTS AND SOFTWARE REQUIRED

These major equipment with broad specifications for the PrOs is a guide to procure them by the administrators to usher in uniformity of practical in all institutions across the state.

S. No.	Equipment Name with Broad Specifications	PrO. No.
1	<ul style="list-style-type: none"> • Graphite pencils -2H, H, F, HB, B, 2B etc • Colored and pastel pencils - Chalk pastels and oil pastels Oil pastels are oil based , wax based and water repellent • Charcoal Stick :-Compressed charcoal Powdered charcoal Willow and vine charcoal • Paper :- Bristol paper , smooth paper , vellum paper 	1 to 21
2	Inks, dip brushes, dip pens, and pens, erasers, stumps, and sharpeners.	1 to 21

7. AFFECTIVE DOMAIN OUTCOMES

The following **sample** Affective Domain Outcomes (ADOs) are embedded in many of the above mentioned COs and PrOs. More could be added to fulfil the development of this course competency.

- a) Follow safety practices.

- b) Practice good housekeeping.
- c) Demonstrate working as a leader/a team member.
- d) Maintain tools and equipment
- e) Follow ethical practices.

The ADOs are best developed through the laboratory/field based exercises. Moreover, the level of achievement of the ADOs according to Krathwohl's 'Affective Domain Taxonomy' should gradually increase as planned below:

- i. 'Valuing Level' in 1st year
- ii. 'Organization Level' in 2nd year.
- iii. 'Characterization Level' in 3rd year.

8. UNDERPINNING THEORY

The major underpinning theory is given below based on the higher level UOs of Revised Bloom's taxonomy that are formulated for development of the COs and competency. If required, more such UOs could be included by the course teacher to focus on attainment of COs and competency.

Unit	Unit Outcomes (UOs) (4 to 6 UOs at different levels)	Topics and Sub-topics
Unit – I Principle & elements of Design	1a. Understand principle of design. 1b. Understand elements of design. 1c. Select appropriate principle of design to make a drawing 1d. Select appropriate element of design to create a drawing	1.1 Rhythm 1.2 Harmony 1.3 Emphasis 1.4 Balance 1.5 Repetition 1.6 Gradation 1.7 Radiation 1.8 Space 1.9 Proportion 1.10 Point 1.11 Form 1.12 Line 1.13 Value 1.14 Texture 1.15 Colour
Unit – II Properties of different drawing tools & sketching and painting media	2a. Understand the use of different drawing media 2b. Understand the use of different colour & painting media 2c. Select appropriate drawing media to develop a drawing 2d. Select appropriate painting media to develop various texture	2.1. Experiment & use of different type of pencils 2.2. Experiment & use of different type of pen(Sketch Pen, Crayons, Etc) 2.3. Experiment with different type of colours (Water, Acrylic , Oil , Pastel etc) 2.4. Experiment with different type of brushes (Fan , Flat ,Mop , Bright etc)

Unit	Unit Outcomes (UOs) (4 to 6 UOs at different levels)	Topics and Sub-topics
Unit – III Shades & Texture creation with different tools	3a. Understand different shading technique 3b. Create the illusion of volume, depth, and the natural way light describes form 3c. Apply use of point & line to create various shading effect 3d. Create different texture & tones by using crayon, and Water color wash.	3.1 Different types of hatching Technique (a) Dot hatching (b) Cone hatching (c) Cross hatching 3.2 Uses of continuous tones , cross contour and stippling technique for shading 3.3 Experiment with different tools and techniques to create different values 3.4 Different tones made with different values or texture
Unit – IV Discovering Forms & their function to create design	4a. Understand Different Forms & functions 4b. Create different 2D and 3D design Forms. 4c. Describe different drawing & painting technique using different type of form. 4d. Physical properties of textile fibres 4e. Chemical properties of textile fibres	4.1 Study of Basic forms and functions as found in nature and environment 4.2 Create Still life basic shapes using different form 4.3 Exposure to variety of 2D and 3D design forms through observation and practice by sketching some designs 4.4 Understand accidental methods of discovering forms & their properties 4.5 Study and practice of various Traditional, Creative, abstract forms
Unit– V Perspective and Composition	5a. Understand the use of perspective in drawing 5b. Understand different type of perspective 5c. Understand the use of composition in drawing and painting 5d. Understand different type of composition in drawing & painting	5.1 One point, two Point & three point perspective 5.2 Linear, Aerial & Shifting perspective 5.3 Figurative composition 5.4 Non figurative composition
Unit– VI Study of colour scheme	6a. Understand the need of colour scheme in sketching & painting 6b. Theory of Colour Mixing 6c. Complementary colour scheme	6.1 Primary , Secondary & Tertiary colour 6.2 Study and practice the complementary colour scheme 6.3 Study and practice the Contrasting Colour Scheme

Unit	Unit Outcomes (UOs) (4 to 6 UOs at different levels)	Topics and Sub-topics
	6d. Contrasting Colour scheme	6.4 Warm & Cool Colour

9. SUGGESTED SPECIFICATION TABLE FOR QUESTION PAPER DESIGN

Unit No.	Unit Title	Teaching Hours	Distribution of Theory Marks			
			R Level	U Level	A Level	Total Marks
I	Principle & elements of Design	06	6	6	4	16
II	Properties of different drawing tools and sketching and painting media	04	4	3	4	11
III	Shades & Texture creation with different tools	04	3	4	4	11
IV	Discovering Forms & their function to create design	04	4	4	4	12
V	Perspective and Composition	04	4	2	2	08
VI	Study of colour scheme	06	4	4	4	12
Total		28	25	23	22	70

Legends: R=Remember, U=Understand, A=Apply and above (Revised Bloom's taxonomy)

Note: This specification table provides general guidelines to assist students for their learning and to teachers to teach and question paper designers/setters to formulate test items/questions to assess the attainment of the UOs. The actual distribution of marks at different taxonomy levels (of R, U and A) in the question paper may slightly vary from above table.

10. SUGGESTED STUDENT ACTIVITIES

Other than the classroom and laboratory learning, following are the suggested student-related **co-curricular** activities which can be undertaken to accelerate the attainment of the various outcomes in this course. Students should perform following activities in group and prepare reports of about 5 pages for each activity. They should also collect/record physical evidences for their (student's) portfolio which may be useful for their placement interviews:

- Prepare specification of some drawing & painting media.
- Undertake micro-projects in teams
- Present seminar on importance of Elements of design
- Visit any art exhibition to understand the core concept of DSP
- Prepare portfolio of Drawing, Sketching & Painting

11. SUGGESTED SPECIAL INSTRUCTIONAL STRATEGIES (if any)

These are sample strategies, which the teacher can use to accelerate the attainment of the various outcomes in this course:

- Massive open online courses (**MOOCs**) may be used to teach various topics/sub topics.
- Guide student(s) to take micro-projects.

- c) Blend the basic concepts with more specialized instruction
- d) Visualization, Cooperative Learning, inquiry based instruction, differentiation, effective use of technology, think-pair and share etc pedagogies can be implemented as per the enlisted course outcomes.
- e) Give at least 10 competitive problems for each course outcomes of this course
- f) Practice, practice and practice - expose students to wide range of problems
- g) About **20% of the topics/sub-topics** which are relatively simpler or descriptive in nature is to be given to the students for **self-learning**, but to be assessed using different assessment methods.
- h) With respect to **section No.10**, teachers need to ensure to create opportunities and provisions for **co-curricular activities**.
- i) Guide students on how to address issues on environment and sustainability using the knowledge of this course

12. SUGGESTED MICRO-PROJECTS

Only one micro-project is planned to be undertaken by a student that needs to be assigned to him/her in the beginning of the semester. In the first four semesters, the micro-project are group-based (group of 3 to 5). However, **in the fifth and sixth semesters**, the number of students in the group should **not exceed three**.

The micro-project could be industry application based, internet-based, workshop-based, laboratory-based or field-based. Each micro-project should encompass two or more COs which are in fact, an integration of PrOs, UOs and ADOs. Each student will have to maintain dated work diary consisting of individual contribution in the project work and give a seminar presentation of it before submission. The duration of the microproject should be about **14-16 (fourteen to sixteen) student engagement hours** during the course. The students ought to submit micro-project by the end of the semester to develop the industry-oriented COs.

A suggestive list of micro-projects is given here. This has to match the competency and the COs. Similar micro-projects could be added by the concerned course teacher:

- a) Portrait drawing
- b) Draw Positive & Negative Shapes
- c) Identify the photos having rule of third
- d) Identify the design having symmetrical & Asymmetrical Balance

13. SUGGESTED LEARNING RESOURCES

S. No.	Title of Book	Author	Publication with place, year and ISBN
1	How to Draw & Paint	Walter T. Foster	Quarto Publishing Group USA , ISBN: 1560105003
2	Watercolors-Still Life (Artists' Workshop)	Astrid Hille, Ursula Bagnall, Walter T. Foster	Quarto Publishing Group USA , ISBN: 1560101822
3	Art of Basic Drawing	Walter Foster	Walter Foster Publishing ,2005, ISBN 13 : 9781560109136
4	Drawing Essentials, 2nd Edition	Deborah Rockman	Oxford University Press,2012, ISBN13 978-0-19-975894-4

5	Drawing: A Contemporary Approach	Sale, Teel and Claudia Betti	Thomson Wadsworth , 2008 ISBN: 9780495094913
6	Form, Space, and Vision: An Introduction to Drawing and Design	Graham Collier	Prentice Hall , 1984 ISBN 10: 0133294420

14. SUGGESTED LEARNING WEBSITES

- <https://www.artfactory.com>
- <https://www.art-is-fun.com>
- <http://www.absolutearts.com/>
- <http://www.artcyclopedia.com/>
- www.artstor.org
- <http://www.artnet.com/>

15. PO-COMPETENCY-CO MAPPING

Semester I	Drawing, Sketching & Painting (Course Code:4315902)									
	POs & PSOs									
Competency & Course Outcomes	PO 1 Basic & Discipline specific knowledge	PO 2 Problem Analysis	PO 3 Design/development of solutions	PO 4 Engineering Tools, Experimentation & Testing	PO 5 Engineering practices for society, sustainability & environment	PO 6 Project Management	PO 7 Life-long learning	* PSO 1	# PSO 2	
Competency	Apply basic principles of drawing, design and color, to create specific aesthetic design									
<u>Course Outcomes</u>										
COa) Use relevant media for sketching, texture creation, pattern expression, still life drawings & sketches.	3	3	1	2	1	2	1	2	3	
COb) Use the principles and elements of designing to create textile designs.	3	1	2	1	2	1	2	3	3	
COc) Create two-dimensional, three dimensional designs or objects by applying relevant shading techniques.	3	1	2	1	2	1	2	3	3	
COd) Apply the different types of repetition, radiation and balance for design creation.	3	2	3	1	1	2	2	2	3	

Legend: '3' for high, '2' for medium, '1' for low and '-' for no correlation of each CO with PO/PSO.

- * **PSO 1** Ability to apply knowledge of textile design in identifying and providing appropriate solutions to the problems of Textiles & Fashion designing industry.
- # **PSO 2** Ability to design and develop optimized textile process as per the need of global demand.

16. COURSE CURRICULUM DEVELOPMENT COMMITTEE**GTU Resource Persons**

Sr. No.	Name and Designation	Institute	Contact No.	Email
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NITTTR Resource Persons

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