

School of Architecture and Interior Design (SAID), KTR

School of Architecture Environment and Design (SEAD), RPM

Faculty of Engineering and Technology

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Lesson Plan – Studio Course

Course Code : 16AR 105
Course Title : Architectural Drawing – I
Year & Semester : I year, I semester.
Course time : ODD SEMESTER (JULY – NOV 2018)
Branch : B. ARCH
Location : ARCHITECTURE DEPARTMENT

Faculty Details:

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Mr. Anoop Menon S	Visiting Faculty	SAID	A	anoopmenon.s@ktr.srmuniv.ac.in	9840855752
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Required Text Books:

1. K. Venugopal et al., "Engineering Drawing + AutoCAD", New Age International Publishers, 2010.
2. Francis D.K Ching, "Architectural Graphics- Fifth Edition", John Wiley and Sons, New Jersey, 2009.
3. N.D. Bhatt et al., "Engineering Drawing" (53rd Edition), Charotar Publishing House, Anand, India, 2014.
4. Morris et al., "Geometrical Drawing for Art Students", Universities press, 2012.
5. Leslie Martin C., "Architectural Graphics", The Macmillan Company, New York, 1978.
6. "Engineering Graphics", M.S. Kumar, D.D. Publications. (2007).

Tentative Assessment dates

Midterm test : 11.9.18 to 18.9.18

Model Examination: 12.10.18 to 17.10.18

Assessment Portions:

Midterm : First Two and Half Units

Model Examination : All Five Units

Assessment details:

Mid term : 15 marks

Portfolio : 15 Marks

Model Exam : 20 marks

DETAILED SESSION PLAN

Total no of hours: 75 hrs.

SNO	Class	Topics To be covered	Hours	Reference	Page No
1		UNIT-1: INTRODUCTION TO DRAWING	15		
	1-5	Lettering and Dimensioning: Introduction to architectural lettering, styles, proportion and scale, Methods of dimensioning		" Francis D.K Ching, "Architectural Graphics- Fifth Edition", John Wiley and Sons, New Jersey, 2009	11-15
	6-10	Lines: different types of lines, their thickness and applications in architectural drawing.			15-19
	11-15	Scale: Architectural Metric scale, necessity of scaled drawing, selection of scale while preparing architectural drawing.			"Engineering Graphics", M.S. Kumar, D.D. Publications. (2007).
2		UNIT-2: GEOMETRICAL DRAWING	15		
	16-20	Introduction to plane geometry: Construction and development of planar surface – square, rectangle, polygon etc.		"Engineering Graphics", M.S. Kumar, D.D. Publications. (2007).	25-40
	21-25	Construction of conic			41-74

	26-30	Introduction to orthographic projection: Representation of geometric solids in terms of plan, elevation and side elevation in first angle projection – exercise on simple solids.	5		87-94
3		UNIT-3: ISOMETRIC VIEW / AXONOMETRIC VIEW	15	"Engineering Graphics", M.S. Kumar, D.D. Publications. (2007).	
	31-35	Isometric view: Isometric view of solids.	5		389-395
	36-40	Isometric application in building – buildings with different shape and different types of roofs to include pitched roof, hipped roof, flat roof, vault, cone, dome etc.	5		396-428
	41-45	Conversion of solids to orthographic projection and vice versa.	5		481-502
4		UNIT-4: BUILDING ELEMENTS AND BUILDING COMPONENTS	20		
	46-55	Building Elements: Techniques of representing building elements such as doors, windows, steps, chajja, porch, canopy, balcony, parapet, foundation, walls, roofs, column, staircase, difference of levels, furniture fittings such as hand wash basins, WC pans, traps etc. on drawings in plan, elevation and section.	5	"Engineering Graphics", M.S. Kumar, D.D. Publications. (2007).	503-528
	56-60	Material Indications: Symbolic representation of building materials as specified by Indian Standard Code of practice.	5		503-510
	61-65	Building components: Components of a simple	5		511-520

		residential building through plan, elevation and section.			
5		UNIT-5: ISOMETRIC VIEW / AXONOMETRIC VIEW OF BUILDINGS	10		
	66-70	Isometric view: Exterior view of a simple residential building showing all building components.	5	"Engineering Graphics", M.S. Kumar, D.D. Publications. (2007).	389-420
	71-75	Axonometric view: Axonometric view of a room interior showing all interior components.	5		421-428
		PORTFOLIO SUBMISSION			

FACULTY IN CHARGES

A. Anoop Menon S

HOD-KTR
Late Submission
CT. Lak
4/7/18

VP ACADEMIC

Dr. Devyani Gangopadhyay

Prof. CT. Lakshmanan

Dr. Devyani Gangopadhyay

Mr. Anoop Menon S

Anoop Menon S

Mr. Denish Kumar

Denish Kumar

Mr. Bala Murali K

Bala Murali K

Mr. Narayanan. M

Narayanan. M

Ms. Raiza Gaizer A

Raiza Gaizer A

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16AR 105	ARCHITECTURAL DRAWING - I	0	0	5	3
	Prerequisite - Nil				

OBJECTIVE:

- To Introduce the concepts and fundamentals of Architectural Drawing.
- To familiarize the students with the language of architecture & buildings as two dimensional and three dimensional representations.

UNIT-1 INTRODUCTION TO DRAWING 15

Introduction to drawing instruments and their use

Lettering and Dimensioning: Introduction to architectural lettering, styles, proportion and scale, Methods of dimensioning

Lines: different types of lines, their thickness and applications in architectural drawing.

Scale: Architectural Metric scale, necessity of scaled drawing, selection of scale while preparing architectural drawing.

UNIT-2 GEOMETRICAL DRAWING 15

Introduction to plane geometry: Construction and development of planar surface – square, rectangle, polygon etc.

Construction of conic sections: Ellipse, parabola and hyperbola

Introduction to orthographic projection: Representation of geometric solids in terms of plan, elevation and side elevation in first angle projection – exercise on simple solids.

UNIT-3 ISOMETRIC VIEW / AXONOMETRIC VIEW 15

Isometric view: Isometric view of solids, Isometric application in building – buildings with different shape and different types of roofs to include pitched roof, hipped roof, flat roof, vault, cone, dome etc. Conversion of solids to orthographic projection and vice versa.

UNIT-4 BUILDING ELEMENTS AND BUILDING COMPONENTS 20

Building Elements: Techniques of representing building elements such as doors, windows, steps, chajja, porch, canopy, balcony, parapet, foundation, walls, roofs, column, staircase, difference of levels, furniture fittings such as hand wash basins, WC pans, traps etc. on drawings in plan, elevation and section.

Material Indications: Symbolic representation of building materials as specified by Indian Standard Code of practice.

Building components: Components of a simple residential building through plan, elevation and section.

UNIT-5 ISOMETRIC VIEW / AXONOMETRIC VIEW OF BUILDINGS 10

Isometric view: Exterior view of a simple residential building showing all building components.

Axonometric view: Axonometric view of a room interior showing all interior components.

TOTAL: 75 Hours

OUTCOME: Students will understand the concepts of architectural drawing as well as representation skills; Will develop an understanding on the building representation in 2D and 3D.



REFERENCES:

1. K. Venugopal et al., "Engineering Drawing + AutoCAD", New Age International Publishers, 2010. 32
2. Francis D.K Ching, "Architectural Graphics- Fifth Edition", John Wiley and Sons, New Jersey, 2009.
3. N.D. Bhatt et al., "Engineering Drawing" (53rd Edition), Charotar Publishing House, Anand, India, 2014.
4. Morris et al., "Geometrical Drawing for Art Students", Universities press, 2012.
5. Leslie Martin C., "Architectural Graphics", The Macmillan Company, New York, 1978.

