

# **PARUL** UNIVERSITY

WAGHODIA, VADODARA

**Subject Teaching & Examination Scheme** 

Course : B.ID | Curriculum : ARCHITECTURE - B.ID - IDA - 2015-16

											End Semester Exam Marks		Exam Passing		
Code	Subject	Credit	Lect	S	Field Work	I	J	Sub	Total	Passing	T/D	V/P	Ma T/D	rks V/P	
01101101	Architectural Design -I	8	2	4	2	20	60	20	100	50	-	-	-	-	100
01101102	Building Materials & Construction Technology -I	5	2	2	1	20	-	30	50	25	50	-	25	-	100
01101103	Architectural Graphics Skills -I	6	1	4	1	-	-	50	50	25	-	50	-	25	100
01101104	Evolution of Architecture -I	3	1	1	1	20	-	30	50	25	50	-	25	-	100
01101105	Architecture and Environment -I	3	2	0	1	20	-	30	50	25	50	-	25	-	100
01101106	Elements of Architecture -I	3	1	1	1	20	10	20	50	25	50	-	25	-	100
01101107	Related Study Programme -I	2	0	0	2	-	40	60	100	50	-	-	-	-	100
	Total	30	9	12	9				450	225			100	25	700

Semester - 1

Lect- Lectures, Field Work - Field Work, S - Studio, I - Internal, J - Jury, Sub - Submission, T/D - Theory, V/P - Practical

Theory Passing % :50 Practical Passing % : 50

# **PARULUNIVERSITY - FACULTY OF ARCHITECTURE**

#### **Department of Architecture**

SYLLABUS FOR 1st Sem B.ID PROGRAMME

Architectural Design -I (01101101)

Type of Course : B.ID

Prerequisite:

Rationale:

# **Teaching and Examination Scheme:**

Teac (H	ching Scl Irs./Wee	heme k)		Examination Scheme						
	т	Р	Credit	Credit External			Internal			
L	1	F		Theory	Practical	Theory	*C.E.	Practical		
2	2	4	8	-	-	40	-	60	100	

L-Lectures;T-Tutorial;P-Practical; C.E.-Continuous Evaluation

# Contents:

Sr.	Торіс	Weightage	Teaching Hrs.
1	Principles and elements of visual composition:	25%	32
	Exploring colour scheme and its application on architectural forms and spaces:	10%	12
3	Study of textures:	5%	6
4	Nature study:	15%	19
5	Understanding of ba sic shelter and its type s:	20%	26
6	Study of anthropometry and its co -relevance with spaces:	25%	33

# \*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

- 1. FORM, SPACE AND ORDER Francis D.K Ching,; John Wiley & Sons
- 2. Design Evolution: A Handbook of Basic Design Principles Applied in Contemporary Design Tim Samara; Rockport Publishers
- 3. Design fundamentals:Notes on Visual Elements and Principles of Composition Rose Gonnella, Christopher Navetta and Max Friedman, Peachpit Press
- 4. Geometry of Design:Studies in Proportion and Composition Kimberly Elam; Princeton Architectural Press

# Building Materials & Construction Technology -I (01101102)

Type of Course : B.ID

Prerequisite:

Rationale:

# **Teaching and Examination Scheme:**

	hing Sch Hrs./Wee			Examination Scheme					
1	т	Р	Credit	Exte		Total			
-		•		Theory	y Practical The	Theory	*C.E.	Practical	
2	1	2	5	50	-	50	-	-	100

L-Lectures;T-Tutorial;P-Practical; C.E.-Continuous Evaluation

# Contents:

Sr.	Торіс	Weightage	Teaching Hrs.
1	Mud/earth: Earth construction techniques (Adobe, Cob, Rammed Earth, Pressed Brick, Wattle & Daub).	25%	20
2	Bricks: Composition of good brick earth, manufacturing of bricks, classification of bricks, types of bricks, brick-bonds (English, Flemish, Double Flemish, Rat trap, Herring bone), brick arches (Flat arch, Segmental arch, Roman arch, Gothic arch, 3 Centred arch, 5 Centred arch).	30%	24
3	Bamboo: Properties of Bamboo and various techniques used for bamboo construction.	25%	20
4	Stone: Classification and types of stone, types of stone masonry, structural and non-structural usage of stone.	20%	16

#### \*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

- 1. Construction of Buildings R. Barry, Wiley - Blackwell
- 2. Building construction W.B McKay, Pearson
- 3. Building construction Handbook Roy Chudley and Roger Greeno
- 4. Architecture and Design :Bamboo Construction & Design: Design Guide & 59 Case Study Eduard Broto; Leading International Key Services Barcelon
- Bamboo in construction: Anintroduction
  D.L Jayanetti and P.R Follett; International Network for Bamboo and Rattan (INBAR) Technical Report15
- Designing and building with bamboo J.J.A Janssen; International Network for Bamboo and Rattan (INBAR) Technical Report20
- 7. Earth Architecture Ronald Rael; Princeton Architectural Press
- 8. Building Construction Illustrated Francis D.K Ching, Wiley

# Architectural Graphics Skills -I (01101103)

Type of Course : B.ID

# Prerequisite:

# Rationale:

# **Teaching and Examination Scheme:**

Teac (I	hing Sch Hrs./Wee	neme k)		Examination Scheme					
	і т р		Credit	Exte		Total			
-	•	•		Theory Practic	Practical	Theory	*C.E.	Practical	
1	1	4	6	-	50	50	-	-	100

L-Lectures;T-Tutorial;P-Practical; C.E.-Continuous Evaluation

#### **Contents:**

Sr.	Торіс	Weightage	Teaching Hrs.
1	Sketching (Object drawing, landscape, vehicles, buildings, in relation to human scale and proportion):	5%	4
2	Basic rendering and colouring techniques.:	5%	2
3	Basic drafting, symbols and lettering.:	10%	10
4	Point and Lines (straight and curvilinear lines). :	10%	10
5	Principles of plane geometry, scales.:	10%	10
6	Orthographic projection of points, lines, planes and solids:	10%	10
7	Solid geometry: sections of solids, simple and complex solids.:	10%	10
8	Surface development of solids -paper models and drawings.:	10%	10
9	Auxiliary projections as an extension of orthographic projections.:	10%	10
10	Applications to sections of solids to obtain true shapes of surface s in section.:	10%	10
11	Interpenetration of geometric solids and conditions of Intersections.:	10%	10

#### \*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

- 1. Architectural Graphics Francis D.K Ching, John Wiley
- 2. Engineering Drawing N.D.BHATT & V.M.PANCHAL; CHAROTAR PUBLISHING HOUSE
- 3. Rendering with Pen & Ink Robert Gill, Thames & Hudson Ltd.
- 4. Visualization Techniques Richard B. Leinbach, Prentice Hall
- 5. Perspective for Architecture Georg Schaarwachter, F.A Praeger

# Evolution of Architecture -I (01101104)

Type of Course : B.ID

Prerequisite:

#### Rationale:

# Teaching and Examination Scheme:

	hing Sch Hrs./Wee			Examination Scheme					
	и т р		Credit	Exte		Total			
-	•	F		Theory Practical Theor	Theory	*C.E.	Practical		
1	1	1	3	50	-	50	-	-	100

L-Lectures;T-Tutorial;P-Practical; C.E.-Continuous Evaluation

#### Contents:

Sr.	Торіс	Weightage	Teaching Hrs.
	<b>Pre-historic age</b> : Stone Age (Palaeolithic, Mesolithic and Neolithic Age), Proto historic period and Historic period	10%	4
2	Four Oldest River Valley Civilizations: o Indus Valley Civilization (alongwith Vedic Planning principles) o Mesopotamian Civilization o Egyptian Civilization o Chinese Civilization	60%	30
3	Greek Civilization:	15%	7
4	Roman Civilization:	15%	7

#### \*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

- 1. Ascent of Man Jacob Bronowski, RHUK
- 2. A World History of Architecture Michael W. Fazio, Marian Moffett and Lawrence Wodehouse, Laurence King Publishing
- 3. Early civilizations Egypt ,Mesopotamia ,the Aegean (HistoryofArt&Architecture) by Walther Wolff ,Herbert Press Ltd.
- 4. World History Ancient Civilizations by Mc Dougal Little ,McDougal Littel
- 5. Greek Architecture A.W Lawrence, Yale University Press
- 6. Principles of Roman Arc hitecture Mark Wilson Jones,; Yale University Press

# Architecture and Environment -I (01101105)

Type of Course : B.ID

# Prerequisite:

# Rationale:

# Teaching and Examination Scheme:

	hing Sch Hrs./Wee			Examination Scheme					
	і т р		Credit	Exte		Total			
-	•	F		Theory	Practical	Theory	*C.E.	Practical	
2	1	0	3	50	-	50	-	-	100

L-Lectures;T-Tutorial;P-Practical; C.E.-Continuous Evaluation

#### Contents:

Sr.	Торіс	Weightage	Teaching Hrs.
1	Environment: Natural (Ecological) , Built (Man-made/Arc hitectural) and Social (Societal/Communal)	25%	13
2	Architecture: Role of Architecture in governing creation and perception of a space	15%	7
3	Culture as a determinant of Architecture: To be learnt through the study of Rural and Urban areas - Old town/city areas, Religious monuments, etc.	30%	14
4	<b>Community &amp; Climate a determinant of Architecture</b> : Understanding Regional approaches in the application of the principals of climate control in the Design of Buildings through the study of Traditional Hous e Forms & Settlement pattern in various tropical climates. (Basic vernac ular shelters from various regions such as Himalayan, Des erts, Coasts, Forests, etc.)	30%	14

#### \*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

- 1. Traditional Architecture: House form of the Islamic community of Bohras in Gujarat Madhavi Desai
- 2. Hand made Houses & Other Buildings: The world of Vernacular Architecture John May and Anthony Reid, Thames & Hudson
- 3. Traditional Architectural Forms of Malabar Coast Ashalatha Thampuran, Vastuvidyapratishthanam Academic Centre
- 4. Vistara: The Architecture of India Catalogue of the Exhibition edited by Carmen Kagal; The Festival of India; Enter Edition
- Prathaa: Kath-Khuni Architecture of Himachal Prades h Bharat Dave, Jay Thakkar and Mansi Shah; SID Research Cell, School of Interior Design, CEPT University; First

# Elements of Architecture -I (01101106)

Type of Course : B.ID

# Prerequisite:

# Rationale:

# **Teaching and Examination Scheme:**

Teac (I	hing Sch Hrs./Wee	neme k)		Examination Scheme					
1	т	Р	Credit	Exte		Total			
-			•   1	Theory	Practical	Theory	*C.E.	Practical	
1	1	1	3	50	-	20	-	30	100

L-Lectures;T-Tutorial;P-Practical; C.E.-Continuous Evaluation

# Contents:

Sr.	Торіс	Weightage	Teaching Hrs.
1	Introduction to tangible and intangible attribute s of elements in Architecture:	20%	10
2	<b>Design Principles</b> : Understanding design principles like Rhythm, Harmony & Character, Symmetry & Asymmetry, Balance, Hierarchy, Centrality, Radiality, Linearity, etc. through study of various design compositions by Precedents in architecture.	40%	19
3	Elements & Aspects of Architecture: To understand the role of Architecture in creation of a physical enclosure/shelter/builtenvironmentwithrespecttothefollowing: Time,Spa ceandPeople 2. Form, Space and Order	40%	19

#### \*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

- 1. FORM, SPACE AND ORDER Francis D.K Ching,; John Wiley & Sons
- 2. Precedents in Architecture Analytic Diagrams ,Formative Ideas, and Partis by Roger H. Clark and Michael Pause, Wiley
- 3. Conc epts of Space in Indian Traditional Architecture Yatin Pandya; Mapin Publishing

# Related Study Programme -I (01101107)

Type of Course : B.ID

Prerequisite:

Rationale:

# **Teaching and Examination Scheme:**

Teaching Scheme (Hrs./Week)				Examination Scheme						
L	т	T P Cred		Credit	Exte	ernal	Internal			Total
				Theory	Practical	Theory	*C.E.	Practical		
0	2	0	2	-	-	60	-	40	100	

L-Lectures; T-Tutorial; P-Practical; C.E.-Continuous Evaluation

# Contents:

Sr.	Торіс	Weightage	Teaching Hrs.
1	Mud construction, Manufacturing of Bricks in Kilns and its properties, Manufacturing of Cement and its properties, ongoing construction site s, etc.:	50%	16
2	Vernacular and Traditional Structures:	30%	10
3	Heritage Monuments:	20%	6

# \*Continuous Evaluation:

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.