

**AMITY UNIVERSITY MADHYA PRADESH**

**AMITY SCHOOL OF ARCHITECTURE  
AND PLANNING**

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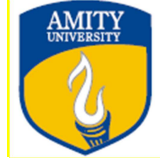


**Bachelor of Architecture**

**YEAR I  
SEMESTER I**

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -I, SEMESTER – I

<b>Course Title</b>	<b>Architectural Design - I</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 101</b>		<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>5</b>
<b>Course Type</b>	<b>CC</b>						

**Course Objective:**

Orientation of students to the profession of Architecture  
 Introduction to the fundamentals of basic design and understanding of forms and spaces in architecture

**Course Contents:**

**Module I: Orientation to the Architecture Profession**

Introduction to Architecture Profession, Roles, Responsibilities and Liabilities of an Architect and other professionals in the building and construction field. Architect's Act – C.O.A, I.I.A, NASA

**Module II: Elements and principal of Design.**

Principles of Design and their application in building design, Principles of organization of forms and spaces. Understanding forms to design a particular environment and space, Understanding Architectural Aesthetics. Use of Materials, Textures, Colors and Light in space design

**Module III: Forms, Space and composition.**

Positive and Negative spaces, Additive and Subtractive spaces, Composition of design, Scale and Proportions in design, Exercises primarily through 3-D models of simple geometric, Anthropometrical study of various spaces. Application of Anthropometrics

**Student Learning Outcomes:**

The student will gain elementary knowledge of architectural principles. These applications will be used in designing buildings, interior spaces and sites

**Pedagogy for Course Delivery:**

Drawing and model making skills will be taught along the subject to improve the abilities to understand space and form

**Prerequisite:**

Min. 2 single day site visits to nearby places to study shelter and human habitat requirements.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NIL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, R : Review, MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

**Text:**

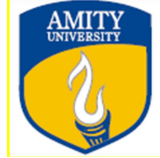
1. Francis D.K. Ching, Architecture: Form, Space and Order,
2. Ernst Neuferts Architects Data, Blackwell 2002
3. Alexander Christopher, A Pattern Language,
4. Heller Robert and Salvadori Mario, Structure in Architecture,
5. Walter Gropius, Design Fundamental in Architecture
6. Peter Streens, Pattern of Nature,
7. MeissPieree Von, Elements of Architecture,

**References:**

8. Joseph D.C. and John Callender, Time Saver standards for building types.
9. Julius Panero, Martin Zelnik, Human Dimension and Interior Space, Whitney Library of
10. Design, 1975
11. Jan Bilwa and Leslie Fair Weather, A.J. Metric Handbook
12. Ramsey et al, Architectural Graphic Standards, Wiley 2000
13. Hideaki Hareguchi, A Comparative analysis of 20th century houses, Academy Editions, 1988
14. Sam F. Miller, Design Process: A Primer for Architectural and Interior Design, Van Nostrand
15. Reinhold, 1995.
16. Terence Conran, The Essential House Book, Conran Octopus, 1994

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -I, SEMESTER – I (REV.)

Course Title	Building material & construction Technology - I	L	T	P	S	Credits
Course Code	BAR 102	1	0	0	4	3
Course Type	CC					

### Course Objectives:

The basic idea of the subject is to make aware of the primary building materials used in construction, their properties, types and common usage. This will enable students to equip themselves with the knowledge of materials and their judicious usage.

To classify the different types of building materials used primarily in building construction work.

To identify the types of materials and their compositions.

To illustrate use of materials and ascertain their application..

To identify the specific use and related technique for a required material.

### Course Contents:

#### Module I: Introduction to Building Components & Basic Building materials

Introduction to elements of building from foundation to roof, Introduction to various methods, technology & materials. Basic Typical section of a single storey building showing details from foundation to parapet wall.

#### Module II: Brick, Clay & Clay products

BRICK: Composition, Sizes, Properties and Classification of bricks, Tests for bricks. Introduction of Brickworks: masonry bonding & ornamental bonding, which will focus on: (types of Brick bonds: English, Flemish & Stretcher bond for both 230 mm & 115 mm brick wall, detail brick layout at corners, junctions and brick columns. Brick Arches, Substitutes for bricks

CLAY & CLAY PRODUCTS: Mud including stabilized Earth, Brick tiles, Tiles, their properties and use - terracotta availability & application.

#### Module III: Stones

Classification of stones. Common building stones used in India. Characteristics and use of stones. Dressing of stone. Artificial stones. Introduction of Stonework: Rubble and Ashlars masonry.

#### Module IV: Lime & Cement

LIME: Classification of lime. Fat and hydraulic lime – properties and use.

CEMENT: Composition of ordinary cement. Function of cement ingredients. Properties of cement – Fineness, Soundness, Setting times, etc. Grades of cement and different types of cements used in construction .storage of cement in site.

#### Module V: Sand, Mortar & Plain Cement Concrete

SAND: Sources of Sand, Classification, Test of Sand. Grades of sand and their uses

MORTAR: Types of mortar – lime mortar, mud mortar, lime-surkhi mortar, cement mortar. Different grades of mortar, their compositions and properties. Preparation of cement mortar. Use and selection of mortar for different construction work.

Student Learning Outcomes:



To comprehend the basic principles and appropriate application and performance of construction materials, products, components, and assemblies, including their environmental impact and reuse.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, group presentation by students, market visit by students. Development of construction yard/court. Conduction of practical exercises in construction yard.

Prerequisite:

Site visit to brick kilns and nearby construction sites to familiarize the students with glossary of vernacular terminology as prevalent in this part of the country

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>50 %</b>	<b>50 %</b>	<b>EE</b>

#### Assessment System :

	<b>Sessional work</b>				<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>				<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>SW</b>	<b>MSE</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>30</b>	<b>20</b>	<b>50</b>

A : Attendance, PR : Presentation, SW : Studio work, C: Case discussion, P: Project, CT: class test, EE: End sem. Exams, VV: Viva Voice.

#### Text & References:

*Text:*

1. Building Construction, Materials by M.V. Naik
2. Structure in Architecture, Salvadori and Heller
3. Building Construction & Materials, S.C. Rangwala
4. A text book of Building Construction, B.C. Punmia
5. Building Materials & Construction, Shushil Kumar.

*References:*

1. Building Construction, Mackay WB Vol. 1-4
2. Construction Technology, Chudley Vol. 1-6

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -I, SEMESTER – I

<b>Course Title</b>	<b>Structural Design System- I</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 103</b>					
<b>Course Type</b>	<b>CC</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

#### Course Objectives:

To introduce the structural system in a building with all the basic components to understand the functions of various elements and building technologies used in various types of buildings.

Course Contents:

#### Module I: Elements of Static

Law of parallelogram of forces, resolution of a forces, law of triangular of forces, polygon of forces, Theorem of resolved parts resultant of number of concurrent coplanar forces, conditions of equilibrium, moment of a forces. Moment and arm of a couple, theorems on couples

#### Module II: Simple Stresses and Strains

Elasticity, Stress, Strain, Types of Stresses, Elastic limit, Hook's Law Modulus of Elasticity, Stresses in Composite Bars. Primary of Linear Strain, Poison's ratio, shear stress, Principal, stresses and strains

#### Module III: Shearing force and Bending, Moment

Beams, Shearing force and bending moment, Moment of resistance. S. F. and B.M diagrams of simple cases.

#### Module IV: Centre of Gravity and Moment of Inertia

Definition, Methods of finding out C.G of Simple figures, Centre of Parallel forces, important theorems, section Modulus, Calculation of M.I by first Principal and its application M.I of Composite sections.

#### Module V: Types of loads

Concept and definitions of dead load, imposed load, seismic load, wind load and snow load as per IS: 875-1987 (Part I- V) and IS: 1893- 2002.

Student Learning Outcomes:

Understanding of principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, group presentation by students , market visit by students. Development of construction yard/court. Conduction of practical exercises in construction yard.

Prerequisite:

NILL

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NIL</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>C</b>	<b>P</b>	<b>S</b>	<b>CT1</b>	<b>CT2</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, C: Case discussion, P: Project, S : Seminar, CT: class test, EE: End sem. Exams.

**Text & References:**

*Text:*

3. Building Construction – Materials, M.V. Naik
4. Strength of Materials, Khurmi R. S.
5. Applied Mechanics and Strength of Materials, Khurmi R. S.
6. Civil Engineering Handbook, P.N. Khanna
7. R.C.C. Design, Khurmi, Punmia, Sushil Kumar
8. Design of Steel Structure, Negi
9. Structure in Architecture, Salvadori and Heller

*References:*

10. Elements of Structure, Morgan
11. Structures in Architecture, Salvadori
12. Building Construction, Mackay WB Vol. 1-4
13. Construction Technology, Chudley Vol. 1-6
14. Elementary Building Construction, Mitchell
15. Structure and Fabric, Everet

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -I, SEMESTER – I

<b>Course Title</b>	<b>Architectural Graphic Skills ( manual ) - I</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 104</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>Course Type</b>	<b>CC</b>							

**Course Objective:**

1. To familiarize the students with various drawing tools and accessories used in drafting and lettering techniques to produce any geometrical composition and form.
2. To provide a clear understanding about the scale measurement; plane geometry, solid geometry and projections used as drawing technique.

To analyze and solve basic problems involving graphics and spatial manipulations for architectural applications to represent the future forms of her/his projects.

Course Contents:

**Module I: Basic technical Drawing and Lettering :**

Introduction to basics- introduction to subject, drawing equipments and its setting, Drafting and quality of lines with pencil, Basic Geometry- Construction of planes, curves, circles tangent and regular polygons, Free hand and mechanical lettering- Free hand drawing and lettering for titles, line work with the use of Drawing Instruments

**Module II: Scale and dimensioning**

Types and uses of scales: Plain, diagonal, comparative, and scale of chords, Scales used in architecture, Reducing and enlarging scales, Representative fraction, Dimensioning of lines and plane figures, Measuring and drawing to scale the following: furniture pieces, rooms, doors and windows, etc.

**Module III: Orthographic Projections:**

Introduction to orthographic projections - isometric and axonometric projections, Planes of Projections, First angle projections, Drawing of lines, basic geometrical shapes in different positions, Projection of regular rectilinear and circular solids (prisms, pyramids, cones, cylinders, spheres etc.) in different positions, construction of plan, elevation and section of 3D objects and projections in various positions.

**Module IV: Surface Development:**

Surface development of solids and sectional solids- Study of development of surfaces, drawing of unfolded surfaces of right solids like Cubes, Prisms, Cylinders; drawing the development of the lateral surface of a pyramid & Cone

Student Learning Outcomes:

Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

Knowledge of basic drawing and colors.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

*Text:*

1. Boaz Joseph , Architectural Graphic standards editor
2. Bhatt, N.D., "Engineering Drawing: Plane and Solid Geometry", Charotar Publishing House, 2006
3. Ching, Francis D. K., "Architectural Graphics", Van Nostrand Reinhold, 2003.

*References:*

4. Leslie, Martin C., "Architectural Graphics", Macmillan Pub Co, 1970.
5. Parkinson, A.C., "A First Year Engg. Drawing", Sir Issac Pitman and Sons.
6. Black, Earl D., "Engineering and Technical Drawing", Van Nostrand Reinhold Co., 1972.

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -I, SEMESTER – I

<b>Course Title</b>	<b>Basic Design and Visual Art - I</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 105</b>							
<b>Course Type</b>	<b>AC</b>			<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>3</b>

### Course Objective:

Introduction to Art and appreciation of art and its philosophies  
Familiarize with principles and theories of arts and architectural composition  
Development of art and graphic skills

Course Contents:

Module I: Theory of Design:

Introduction to Graphic Composition, Principles of design and Elements of Design

### Module II: Art and Graphic Skills

Free hand sketching and drawing, Drawing curves and other shapes, Comprehension of scale, still life drawing- from observation & memory, Nature.

Student Learning Outcomes:

Student will learn to appreciate art and its philosophies and develop the skills of art and graphics.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

Knowledge of basic drawing and colors.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

**Text:**

- Perspective for the Architect: Themes and Hudson
- Perspective and Sciography, Shankar Mulik
- Mastering AutoCad: George Omura
- Interior Design: Ahmed Kasu
- Architectural Graphics, Ching Frank
- Engineering Drawing, N.D. Bhatt

**References:**

- Architectural Graphic standards editor, Boaz Joseph
- Planning – the Architect’s handbook, E and E.O.
- Time Saver standards for building types, Editor Joseph D.C. and John Callender.
- Rendering with pen and ink
- Practical Plane and Solid Geometry, H. Joseph and Morris

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -I, SEMESTER – I

<b>Course Title</b>	<b>History of Architecture, Art and Culture - I</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 106</b>							
<b>Course Type</b>	<b>AC</b>			<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

**Course Objective:**

Introduction to Architectural elements, forms, development trends, characteristics of construction techniques and technologies, buildings, civilization transformation over the time period  
 Familiarize with the socio–economic, historical, political influences of time period in Architectural development.  
 Identify the buildings and the major works of the period.

Course Contents:

**Module I: History of Civilizations**

**Pre-Historic Period till 3000B.C.** - The type of Architectural development during the period taking few building examples of the different periods – Neolithic, Mesolithic and Iron Age.

**Egyptian Civilizations (3000B.C. – 100 A.D)** – Introduction to Egyptian Architecture and civilization, Architectural characteristics and developments over the period in respect of Buildings, Tomb Architecture-MASTABAS, PYRAMIDS and ART FORM built in the period – explain with examples of the buildings, construction technology, building materials used, evolution of form and development with significant changes over the time period.

**Module II: History of Western Architecture**

Mesopotamian Civilization, Babylonian, Assyrian, Architectural characteristics and developments over the period in respect of Buildings, ART FORM built in the period – explain with examples of the buildings, construction technology, building materials used, evolution of form and development with significant changes over the time period.

**Module III: History Indian Architecture (2,500B.C. – 100 A.D.)**

Indus valley civilization, The Aryan civilization, Hindu Architecture – Indo Aryan and Dravidian Jain/Buddhist Architecture – Development by Asoka - explain with examples of the buildings, construction technology, building materials used, evolution of form and development with significant changes over the time period.

**Module IV: Indian Architecture (100 A.D. – 1800 A.D)**

Andhras of South, Gupta Period, Chalukyas. Pallavs, Feudalism in North, Rajputs, Kaliga period – Asoka the grate, Chandelas, Cave and Rock Architecture of Medieval India – Ajanta and Ellora, Lakshmana Temple at Khajurao, Kailash temple, Cholas and Pandyas, Sun Temple at Modhera and Konark, Orissa- Lingraja and Raja Rani Temple ant Bhuvneshwar (1000 A. D.), Meenakshi Temple at Madurai (15–18 Cent).

Student Learning Outcomes:

Students will understand and relate Architecture elements and Familiarize with the socio–economic, historical, political influences of time period in Architectural development. Identify the buildings and the major works of the period.



Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

NILL

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

**Text:**

- “Landscape of Man” of Geoffrey and Susan Jellicoe
- “Understanding Architecture, Its elements, history and meaning” by Leland & M. Roth
- “Concepts of space in Traditional Indian Architecture” by Yatin Pandya
- “The History of Architecture” by Sir Bannister Fletcher
- “Buddist and Hindu Architecture” in India by Satish Grover

**References:**

- History of Architecture – J E Swain
- History of Architecture by Dora Couch
- A study of History – Almond Toynbee
- Traditions in Architecture – Dora Couch

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -I, SEMESTER – I

<b>Course Title</b>	<b>Visual Art and Appreciation</b>				<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 107 (CANCEL MINOTR TRACK)</b>				<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>								

**Course Objective:**

The course will enable the students to develop an understanding of the elements of art, a basic vocabulary for describing visual art, a general understanding of the role art has played throughout Western history, and contemporary trends

Course Contents:

**Module I: The Language of Visual Experience**

Visual elements, Principles of design, evaluating art.

**Module II: The Media of Art**

Drawing, Painting, Printmaking, Camera arts and digital imaging, Graphic design and illustration, Sculpture, Clay, glass, metal, wood, fiber.

Architecture and environmental design.

**Module III: Art as Cultural Heritage**

From the earliest art to the Bronze Age, The Classical and Medieval West, Renaissance and Baroque Europe, Traditional arts of Asia, The Islamic world.

**Module IV: The Modern World**

Late Eighteenth and Nineteenth Centuries, Early Twentieth Century, Modern art Movements.

**Module V: The Postmodern World**

Postmodernist and Global Art.

Student Learning Outcomes:

Student will learn to appreciate art and its philosophies and develop the skills of art and graphics.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

Knowledge of basic Art and Culture.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

**Text & References:**

- Lazzari, Margaret and Donna Schlesier. *Exploring Art*. 2nd Edition. Clark Baxter, Belmont, CA, 2005.
- Responding to Art: Form, Content, & Context by Robert Berson.
- Space, Time and Architecture: The Growth of a New Tradition, Fifth Revised and Enlarged Edition (The Charles Eliot Norton Lectures) by Sigfried Giedion.
- A Pattern Language, by Christopher Alexander.
- Atlas of Western Art History: Artists, Sites and Movements from Ancient Greece to the Modern Age by John Steer and Antony White
- Postmodernism (Movements in Modern Art) by Eleanor Heartney
- Elements of Architecture, Meiss Pieree Von

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -I, SEMESTER – I

<b>Course Title</b>	<b>Environmental Studies - I</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 108</b>							
<b>Course Type</b>	<b>AC</b>			<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

**Course Objective:**

The term environment is used to describe, in the aggregate, all the external forces, influences and conditions, which affect the life, nature, behavior and the growth, development and maturity of living organisms. At present a great number of environment issues, have grown in size and complexity day by day, threatening the survival of mankind on earth. A study of environmental studies is quite essential in all types of environmental sciences, environmental engineering and industrial management. The objective of environmental studies is to enlighten the masses about the importance of the protection and conservation of our environment and control of human activities which has an adverse effect on the environment.

Course Contents:

**Module I: The multidisciplinary nature of environmental studies**

Definition, scope and importance  
Need for public awareness

**Module II: Natural Resources**

**Renewable and non-renewable resources:**

Natural resources and associated problems

Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.

Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

Role of an individual in conservation of natural resources.

Equitable use of resources for sustainable lifestyles.

### Module III: Ecosystems

Concept of an ecosystem

Structure and function of an ecosystem

Producers, consumers and decomposers

Energy flow in the ecosystem

Ecological succession

Food chains, food webs and ecological pyramids

Introduction, types, characteristic features, structure and function of the following ecosystem:

- a. Forest ecosystem
- b. Grassland ecosystem
- c. Desert ecosystem
- d. Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

### Module IV: Biodiversity and its conservation

Introduction – Definition: genetic, species and ecosystem diversity

Biogeographically classification of India

Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values

Biodiversity at global, national and local levels

India as a mega-diversity nation

Hot-spots of biodiversity

Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts

Endangered and endemic species of India

Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

Student Learning Outcomes:

The Students will enlighten the masses about the importance of the protection and conservation of our environment and control of human activities which has an adverse effect on the environment.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

NILL

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

#### Lab / Practical / Studio Assessment :

	<b>Sessional work</b>					<b>End Term</b>
<b>Weightage %</b>	<b>30%</b>					<b>70%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>70</b>

A : Attendance, S : Seminar, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

## Text & References:

- Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad 380 013, India, Email:mapin@icenet.net (R)
- Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
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- Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
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- Down to Earth, Centre for Science and Environment (R)
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- Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
- Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
- Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
- Mckinney, M.L. & School, R.M. 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.
- Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
- Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
- Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
- Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
- Survey of the Environment, The Hindu (M)
- Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science
- Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)
- Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)
- Wanger K.D., 1998 Environnemental Management. W.B. Saunders Co. Philadelphia, USA 499p

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -I, SEMESTER – II

<b>Course Title</b>	<b>Architectural Design – II</b>		<b>L</b>	<b>T</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 201</b>		<b>0</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Course Type</b>	<b>CC</b>					

#### Course Objective:

Relating Anthropometrics to human activities and analyzing the space requirements for activities.  
To understand the concept of Form follows function and to appreciate the elements in Architecture.

#### Course Contents:

##### **Module I: Anthropometrics, scale and function.**

Understanding Human scale, activities, and proportion. Functions and space requirements for different.  
Learning the fundamentals of design, forms and scale

#### Suggestive design exercises:

Short exercises in design and layout of personal space, rooms etc. Study and design of small structures like ceremonial gates, temporary exhibition stalls, drinking water fountains, milk booths, Florist kiosk, gift or souvenir shop, pavilions, bus shelter, cycle stand, entrance gate, traffic police kiosk, ATM etc.

#### Student Learning Outcomes:

The student will gain elementary knowledge of architectural principles. These applications will be used in designing buildings, interior spaces and sites

#### Pedagogy for Course Delivery:

Drawing and model making skills will be taught along the subject to improve the abilities to understand space and form.

#### Prerequisite:

Min. 2 single day site visits to nearby places to study shelter and human habitat requirements.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, R : Review, MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams,.

**Text & References:****Text:**

1. Francis D.K. Ching, Architecture: Form, Space and Order,
2. Ernst Neuferts Architects Data, Blackwell 2002
3. Alexander Christopher, A Pattern Language,
4. Heller Robert and Salvadori Mario, Structure in Architecture,
5. Walter Gropius, Design Fundamental in Architecture
6. Peter Streens, Pattern of Nature,
7. MeissPieree Von, Elements of Architecture,

**References:**

1. Joseph D.C. and John Callender, Time Saver standards for building types.
2. Julius Panero, Martin Zelnik, Human Dimension and Interior Space, Whitney Library of
3. Design, 1975
4. Jan Bilwa and Leslie Fair Weather, A.J. Metric Handbook
5. Ramsey et al, Architectural Graphic Standards, Wiley 2000
6. Hideaki Hareguchi, A Comparative analysis of 20th century houses, Academy Editions,1988
7. Sam F. Miller, Design Process: A Primer for Architectural and Interior Design, Van Nostrand
8. Reinhold, 1995.
9. Terence Conran, The Essential House Book, Conran Octopus, 1994



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YEAR -I, SEMESTER – II

Course Title	Building Material And Construction Technology - II	L	T	S	Credits
Course Code	BAR 202	1	0	4	3
Course Type	CC				

## Course Objectives:

- To know and understand the basic characteristics and classification of timber as a construction material.
- To understand openings and the use and construction details of doors and windows with timber shutters and frames. Carpentry details in timber develop understanding in fixing of doors and windows.
- Make students aware of various types of carpentry joints and their applications.

## Course Contents:

### Module I: Timber & Bamboo- As building material Timber:

Structure and timber trees, varieties of timber, defects in timber, decay of timber, Qualities of timber for construction, seasoning, storage and preservation of timber, properties and strength of manufactured products, veneers, plywood, block boards, fiberboard, etc.. **Bamboo:** Basic concepts to use it as a building material.

### Module II: Carpentry & Joinery in Timber

Different types of joints in timber and their applications to understand the function of joints with respect to load condition. (Lengthening and widening joints, Lap joints, tongue and grooved joints, mortise and tenoned joints, Haunched tenon and mortise joints, dove tail joints, oblique tenon joints, etc.) and the application of various tools & machinery used in the process.

### Module III: Timber Doors & Windows

**Doors:** Details of doors which will include Basic Doors ( A. Ledged and battened doors, B. Ledged, braced and battened doors, C. Framed, ledged, braced, and battened doors), Flush Doors (both solid & hollow core flush doors) & Panelled Door (both single & double shutter panel doors – in timber, wire mesh & glazed paneledoor.)

**Windows:** Details of window which will include Casement window, fully glazed window, Ventilator Simple & pivoted, Fixed Glass window, louvered window, corner and Baywindow

**Module IV: Roofing & Flooring Systems in Timber**

Concept of spanning and its extension in formation of timber roofs (Lean to roof, closed couple roof, collar roof) and floors.

**Module V: Timber Partition, Cupboard and Wardrobes**

Timber and its associated products – Ply, Block board, Veneers, Laminates, etc.

Details of Timber Panelled and Soft board Partitions. Wooden Cupboards/Wardrobes / Cabinets (Living & Kitchen both) details with emphasis on the new fixing hardware.

**Student Learning Outcomes:**

S.no.	Domain	Category	Outcome
1.	Cognitive	Understanding	To develop understanding about complex foundations and the constructions techniques involved.
2.	Cognitive	Remembering	To recognize openings used as different situations made up of timber from day to day life.
3.	Cognitive	Understanding	To understand the importance of wooden carpentry joinery details usopenings. To comprehend the details/ arrangements of joinery in openings.
4.	Cognitive	Evaluation	To evaluate the best suitable Joinery in openings
5.	Cognitive	Understanding	To learn properties of various construction materials like waterproofing materials, clay used as flooring materials and timber used in the building industry.

**Pedagogy for Course Delivery:**

The course will be delivered by means of lectures, group presentation by students , market visit by students.

Development of construction yard/court. Conduction of practical exercises in construction yard.

**Prerequisite:**

Site visit to Timber market, Stone market, and nearby construction sites to familiarize the students with glossary of vernacular terminology , latest materials and rates, as prevalent in this part of the country

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>50 %</b>	<b>50 %</b>	<b>EE</b>

**Assessment System:**

	<b>Sessional work</b>					<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>					<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>P</b>	<b>SW</b>	<b>MSE</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>05</b>	<b>15</b>	<b>20</b>	<b>50</b>

A : Attendance, PR : Presentation, SW : Studio work, P: Project, CT: class test,EE: End sem. Exams, MSE: Mid Semester Examination.

**Text & References:****Text:**

- Building Construction – Materials, M.V.Naik
- Strength of Materials, KhurmiR.S.
- Applied Mechanics and Strength of Materials, KhurmiR.S.
- Civil Engineering Handbook, P.N.Khanna
- R.C.C. Design, Khurmi, Punmia, SushilKumar
- Design of Steel Structure, Negi
- Structure in Architecture, Salvadori andHeller

**References:**

- Elements of Structure, Morgan
- Structures in Architecture, Salvadori
- Building Construction, Mackay WB Vol.1-4
- Construction Technology, Chudley Vol.1-6
- Elementary Building Construction, Mitchell
- Structure and Fabric, Everet

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



YEAR -I, SEMESTER – II

<b>Course Title</b>	<b>Structural Design System- II</b>	<b>L</b>	<b>T</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 203</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>
<b>Course Type</b>	<b>CC</b>				

## Course Objectives:

To understand the basic principles of structural system so that it forms the basis for study of structural design. To help students to understand the basic principles of structural behavior and requirements of buildings with emphasis laid on the principles of various load distribution in beams and columns.

## Course Contents:

### **Module I: Stresses in Beams and Trusses**

Theory of simple bending- neutral layer, bending stresses in beams, Bending equation, Definitions, forces in members, analytical method, Method of sections, graphical method, link polygon in trusses, Distribution of shear stress in section of a beam – rectangular, semi- circular, T and I sections.

### **Module II: Direct and Bending stresses**

Combined bending and direct stresses, axial and eccentric loads, effects of eccentricity etc.

### **Module III: Deflection of Beams**

Deflection in simply supported beams and cantilevers with distributed and point loads. Fixed beams simple support and fixed support, advantages and disadvantages of fixed beams. Determination of positive and negative bending moments in fixed beams for various loadings and symmetrical Portal frames.

### **Module IV: Columns**

Definition, end conditions, Euler's Theory of long columns, effective length of columns, Empirical formulae for columns, buckling and critical loads, slenderness ratio

### **Module V: Soil Mechanics and Foundation Design**

Importance of the subject, Types of Soils, Classification of soil, engineering properties of soil, Bearing capacity of soil, Various types of foundations, Effect of water level, Failure of foundation systems, Design procedures for simple load bearing foundations.

## Student Learning Outcomes:

Understanding of principles of structural behavior in withstanding stress and deflection and the soil mechanics for the foundations in structural systems

## Pedagogy for Course Delivery:

The course will be delivered by means of lectures, group presentation by students , market visit by students. Development of construction yard/court. Conduction of practical exercises in construction yard.

**Prerequisite:**

NILL

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NIL</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>					<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>					<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>C</b>	<b>P</b>	<b>S</b>	<b>MSE</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>50</b>

A : Attendance, C: Case discussion, P: Project, S : Seminar, CT: class test, EE: End sem. Exams.

**Text & References:**

*Text:*

1. Building Construction – Materials, M.V. Naik
2. Strength of Materials, Khurmi R. S.
3. Applied Mechanics and Strength of Materials, Khurmi R. S.
4. Civil Engineering Handbook, P.N. Khanna
5. R.C.C. Design, Khurmi, Punmia, Sushil Kumar
6. Design of Steel Structure, Negi
7. Structure in Architecture, Salvadori and Heller

*References:*

8. Elements of Structure, Morgan
9. Structures in Architecture, Salvadori
10. Building Construction, Mackay WB Vol. 1-4
11. Construction Technology, Chudley Vol. 1-6
12. Elementary Building Construction, Mitchell
13. Structure and Fabric, Everet

# AMITY UNIVERSITY

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## YEAR -I, SEMESTER – II

Course Title	Architectural Graphics Skill (Manual)-II	L	T	S	Credits
Course Code	BAR 204	0	2	2	3
Course Type	CC				

### AIM:

To develop the skill of representation in advanced drawing techniques and building documentation.

### OBJECTIVES:

- To involve students in a number of exercises that will help them develop the skill of representation in advance drawing techniques involving perspective and sciography.
- To involve students in a number of exercises that will help to understand the measured drawing method to document buildings of architectural interest using simple and advance techniques of representation.

### CONTENT:

#### UNIT I SCIOGRAPHY 10

Principles of shade and shadow – construction of shadow of simple geometrical shapes – construction of sciography on building, shadows of architectural elements.

#### UNIT II PERSPECTIVE: SCIENTIFIC METHOD 25

Characteristic of perspective drawing. Concepts and methods of perspective drawing. One point and two point perspective of simple geometrical shapes like cube, prism, combination of shapes, simple one, two and three-point perspective of building interiors and exteriors. Adding of figures, trees furniture etc., shade and shadows and applying rendering techniques.

#### UNIT III PERSPECTIVE: SHORT CUT METHOD 15

Introduction to short cut perspective method. Adding of figures, trees furniture etc., shade and shadows and applying rendering techniques.

#### UNIT IV MEASURED DRAWING: HISTORIC DOCUMENT STUDY 10

Combined study of historic document along with small building by using simple measuring tools like tapes, photograph etc.

**UNIT V MEASURED DRAWING:**

Documentation of a complete building of a special interest in terms of history, building construction, architectural excellence or technology.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

**REQUIRED READINGS**

1. IH. Morris, Geometrical Drawing for Art Students - Orient Longman, Madras, 2004.
2. Francis Ching, Architectural Graphics, Van Nostrand Rein Hold Company, New York, 1964.

**REFERENCES**

1. George K.Stegman, Harry J.Stegman, Architectural Drafting Printed in USA by American Technical Society, 1966.
2. C.Leslie Martin, Architectural Graphics, The Macmillan Company, New York, 1964

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -I, SEMESTER – II

<b>Course Title</b>	<b>History of Architecture-II</b>			<b>L</b>	<b>T</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 206</b>			<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Course Type</b>	<b>AC</b>						

### Course Objective:

Understanding of the period in term of its location, climate as well as the socio-cultural historical, economical and political influences of the time.

Study of the building types and development of architectural form with examples that identify the works of the period.

### Course Contents:

#### Module I: Introduction to Islamic Period

Introduction and understanding of “Islam’s” philosophy and its interpretation in building types – Mosque, Tomb, Fort and their elements like dome, arches, minarets etc.

#### Module II: The Sultanate Style

With reference to the Slave, Khalji, Tughlaq, Lodi and Shershah Suri (who ruled from Delhi), architecture at Punjab, Gujarat, Bijapur and deccan.

#### Module III: Islamic cities & Monuments

Concepts of city Planning of various Islamic towns example- Shahajahanabad, Fhatehpur Sikri etc. Monuments – Qutab Complex, Tuglakabad, Taj Mahal, Gol Gumbaj, Golconda Fort, Jami Masjid etc.

#### Module IV: Mughal Architecture

The Architecture related to Babur, Humanyu, Akbar, Shahajan Period and later Mughal period its implication on Architectural field.

#### Module V: Colonial Architecture

The British architecture of the colonial days in India and development of the Indo-Saracenic style. Examples of the capital at Delhi and the residency at Lucknow emphasizing on their planning criteria and architectural feature.



**Student Learning Outcomes:**

Students will understand and relate Architecture elements and Familiarize with the socio-economic, historical, political influences of time period in Architectural development. Identify the buildings and the major works of the period.

**Pedagogy for Course Delivery:**

The course will be delivered by means of lectures, Assignments and group presentation by students.

**Prerequisite:**

NILL

**Assessment/ Examination Scheme:**

Theory %	Lab/ practical/studio %	End Term Examination
100 %	NILL	Theory

**Lab / Practical / Studio Assessment :**

	Sessional work					End Term
Weightage %	50%					50%
Component drop down	A	S	AS1	AS2	MSE	Theory
Weightage %	05	05	10	10	20	50

A : Attendance, S : Seminar, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References****Text:**

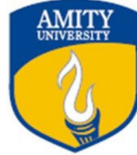
- "Landscape of Man" of Goeffrey and Susan Jellicoe
- "Understanding Architecture, Its elements, history and meaning" by Leland & M. Roth
- "Concepts of space in Traditional Indian Architecture" by Yatin Pandya
- "The History of Architecture" by Sir Bannister Fletcher
- "Buddist and Hindu Architecture" in India by Satish Grover

**References:**

- History of Architecture – J E Swain
- History of Architecture by Dora Couch
- A study of History – Almond Toynbee
- Traditions in Architecture – Dora Couch

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



YEAR –I, SEMESTER – II

<b>Course Title</b>	<b>Architectural workshop-I (Model making)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 207</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>					

## Course Objective:

To develop the skill in making models using different materials by understanding the scale and proportion of objects.

## Course Contents:

### Module I: Workshop

Understanding the use of different materials in model making – paper, box board, foam board, sun board, thermocol, balsa wood, etc. and use of colors. Use of different types of joints and model making techniques like surface development, etc Understanding the difference between block and presentation models

### Module II: : 3-D forms

Use of surface development for creation of different 3-D forms. Working with the clay, thermocol, soap, paper and other innovative materials to create forms and compositions, Prepare a scale model for a single activity, single space structure.

## Student Learning Outcomes:

Student will learn To enhance the ability to understand the scale and proportions of the design objectives and to work with different materials.

## Pedagogy for Course Delivery:

The course will be delivered by means of practical working at Model making workshops and tutorials and assignments.

## Prerequisite:

NILL

## Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment:**

	Sessional work						End Term
Weightage %	50%						50%
Component drop down	A	PR	AS1	AS2	AS3	MSE	VV
Weightage %	05	05	10	10	10	10	50

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice,

C: Case discussion, P: Project, CT: class test, SW : StudioWork, EE: End sem. Exams.

**Text & References:****Text:**

1. Architectural Model Building: Tools, Techniques, & Materials, Roark T. Congdon
2. Model Making: A Basic Guide, Martha Sutherland
3. Engineering Drawing, N.D. Bhatt

**References:**

4. Model Making, Megan Werner
5. Wooden World, John Smith
6. Model-Making: Materials and Methods illustrated edition, David Neat
7. Designing With Models: A Studio Guide To Making And Using Architectural Design Models, Criss B. Mills
8. Model Building for Architects and Engineers, John Taylor
9. Architectural Models, Rolf Janke
10. "Architecture", Andreas Papadakis
11. New rural housing design theory [Paperback] by NINGYULUOZHONGZHAOZHANGHUIFANG
12. Housing Design: A Manual by Bernard Leupen and Harald Mooij
13. The Housing Design Handbook: A Guide to Good Practice by Levitt, David

**COMMUNICATION SKILLS – II**

**Course Code: BCU241**

**Credit Units: 01**

**Course Objectives:**

To understand the different aspects of communication using the four macro skills – LSRW (Listening, Speaking, Reading, Writing)

**Prerequisites:** NIL

<b>Course Contents / Syllabus:</b>		
<b>1.</b>	<b>Module I Communication</b>	<b>35% Weightage</b>
	<ul style="list-style-type: none"> <li>• Process and Importance</li> <li>• Models of Communication (Linear &amp; Shannon Weaver)</li> <li>• Role and Purpose</li> <li>• Types &amp; Channels</li> <li>• Communication Networks</li> <li>• Principles &amp; Barriers</li> </ul>	
<b>2.</b>	<b>Module II Verbal Communication</b>	<b>25% Weightage</b>
	Oral Communication: Forms, Advantages & Disadvantages Written Communication: Forms, Advantages & Disadvantages Introduction of Communication Skills (Listening, Speaking, Reading, Writing)	
<b>3.</b>	<b>Module III Non-Verbal Communication</b>	<b>30% Weightage</b>
	<ul style="list-style-type: none"> <li>• Principles &amp; Significance of Nonverbal Communication</li> <li>• KOPPACT (Kinesics, Oculesics, Proxemics, Para-Language, Artifacts, Chronemics, Tactilics)</li> <li>• Visible Code</li> </ul>	
<b>4.</b>	<b>Module IV : Prose</b>	<b>10% Weightage</b>
	TEXT: APJ Abdul Kalam and Arun Tiwari. <i>Wings of Fire: An Autobiography</i> , Universities Press, 2011  Comprehension Questions will be set in the End-Semester Exam	
<b>5.</b>	<b>Student Learning Outcomes:</b>	
	The students should be able to : <ul style="list-style-type: none"> <li>• Apply Verbal and Non-Verbal Communication Techniques in the Professional Environment</li> </ul>	
<b>6.</b>	<b>Pedagogy for Course Delivery:</b>	
	<ul style="list-style-type: none"> <li>• Workshop</li> <li>• Extempore</li> <li>• Presentations</li> <li>• Lectures</li> </ul>	

7.	<b>Assessment/ Examination Scheme:</b>				
	<b>Theory L/T (%)</b>	<b>Lab/Practical/Studio (%)</b>			<b>End Term Examination</b>
	100%	NA			70%
	<b>Theory Assessment (L&amp;T):</b>				
<b>Continuous Assessment/Internal Assessment</b>				<b>End Term Examination</b>	
<b>Components (Drop down)</b>	Class Test	Assignment	Viva	Attendance	
<b>Weightage (%)</b>	15%	10%	0%	5%	70%

**Text:** Rosenblum, M. *How to Build Better Vocabulary*, London: Bloomsbury Publication.  
 Verma, Shalini. *Word Power made Handy*, S. Chand Publications.  
*High School English Grammar & Composition* by Wren & Martin

**Reference:** K.K.Sinha, *Business Communication*, Galgotia Publishing Company.  
 Alan Pease : *Body Language*

**Additional Reading:** Newspapers and Journals

**AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP**  
**BEHAVIOURAL SCIENCE - II**

**Course Code: BSU243**

**Credit Units:01**

**Course Objective:**

This course aims at enabling students towards:

- Understand the importance of individual differences
- Better understanding of self in relation to society and nation
- Facilitation for a meaningful existence and adjustment in society
- Inculcating patriotism and national pride

**Course Contents:**

**Module I: Individual differences & Personality (2 Hours)**

- Personality: Definition & Relevance
- Importance of nature & nurture in Personality Development
- Importance and Recognition of Individual differences in Personality
- Accepting and Managing Individual differences
- Intuition, Judgment, Perception & Sensation (MBTI)
- BIG5 Factors

**Module II: Managing Diversity (2 Hours)**

- Defining Diversity
- Affirmation Action and Managing Diversity
- Increasing Diversity in Work Force
- Barriers and Challenges in Managing Diversity

**Module III: Socialization (2 Hours)**

- Nature of Socialization
- Social Interaction
- Interaction of Socialization Process
- Contributions to Society and Nation

**Module IV: Patriotism and National Pride (2 Hours)**

- Sense of pride and patriotism
- Importance of discipline and hard work
- Integrity and accountability

**Module V: Human Rights, Values and Ethics (2 Hours)**

- Meaning and Importance of human rights
- Human rights awareness
- Values and Ethics- Learning based on project work on Scriptures like- Ramayana, Mahabharata, Gita etc.

**Module VI: End-of-Semester Appraisal (2 Hours)**

- Viva - Voce based on personal journal
- Assessment of Behavioral change as a result of training
- Exit Level Rating by Self and Observer

**Examination Scheme:**

Components	SAP	A	Mid Term Test (CT)	VIVA	Journal for Success (JOS)
<b>Weightage (%)</b>	20	05	20	30	25

**Suggested Readings:**

- Davis, K. Organizational Behaviour,
- Bates, A. P. and Julian, J.: Sociology - Understanding Social Behaviour
- Dressler, David and Cans, Donald: The Study of Human Interaction
- Lapiere, Richard. T – Social Change
- Lindzey, G. and Borgatta, E: Sociometric Measurement in the Handbook of Social Psychology, Addison – Welsley, US.
- Rose, G.: Oxford Textbook of Public Health, Vol.4, 1985.
- Robbins O.B. Stephen;. Organizational Behaviour

**AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP**  
**ENVIRONMENTAL STUDIES - II**

**Course Code: EVS242**

**Credit Units: 02**

**Course Objective:**

The term environment is used to describe, in the aggregate, all the external forces, influences and conditions, which affect the life, nature, behaviour and the growth, development and maturity of living organisms. At present a great number of environment issues, have grown in size and complexity day by day, threatening the survival of mankind on earth. A study of environmental studies is quite essential in all types of environmental sciences, environmental engineering and industrial management. The objective of environmental studies is to enlighten the masses about the importance of the protection and conservation of our environment and control of human activities which has an adverse effect on the environment.

**Course Contents:**

**Module I: Environmental Pollution**

Definition

Causes, effects and control measures of:

- a. Air pollution
- b. Water pollution
- c. Soil pollution
- d. Marine pollution
- e. Noise pollution
- f. Thermal pollution
- g. Nuclear pollution

Solid waste management: Causes, effects and control measures of urban and industrial wastes.

Role of an individual in prevention of pollution.

Pollution case studies.

Disaster management: floods, earthquake, cyclone and landslides.

**Module II: Social Issues and the Environment**

From unsustainable to sustainable development

Urban problems and related to energy

Water conservation, rain water harvesting, watershed management

Resettlement and rehabilitation of people; its problems and concerns. Case studies.

Environmental ethics: Issues and possible solutions

Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies.

Wasteland reclamation

Consumerism and waste products

Environmental Protection Act

Air (Prevention and Control of Pollution) Act

Water (Prevention and control of Pollution) Act

Wildlife Protection Act

Forest Conservation Act

Issues involved in enforcement of environmental legislation

Public awareness

**Module III: Human Population and the Environment**

Population growth, variation among nations

Population explosion – Family Welfare Programmes

Environment and human health

Human Rights

Value Education

HIV / AIDS

Women and Child Welfare

Role of Information Technology in Environment and Human Health

Case Studies

**Module IV: Field Work**

Visit to a local area to document environmental assets-river / forest/ grassland/ hill/ mountain.

Visit to a local polluted site – Urban / Rural / Industrial / Agricultural

Study of common plants, insects, birds

Study of simple ecosystems-pond, river, hill slopes, etc (Field work equal to 5 lecture hours)

**Examination Scheme:**

Components	CT	HA	S/V/Q	A	EE
Weightage (%)	15	5	5	5	70

**Text &References:**

- Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad 380 013, India, Email:mapin@icenet.net (R)
- Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
- Clark R.S., Marine Pollution, Clarendon Press Oxford (TB)
- Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p
- De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- Down to Earth, Centre for Science and Environment (R)
- Gleick, H.P. 1993. Water in Crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. InstituteOxfordUniv. Press. 473p
- Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
- Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. CambridgeUniv. Press 1140p.
- Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
- Mckinney, M.L. & School, R.M. 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.
- Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
- Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
- Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
- Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
- Survey of the Environment, The Hindu (M)
- Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science
- Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)
- Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)
- Wanger K.D., 1998 Environnemental Management. W.B. Saunders Co. Philadelphia, USA 499p



AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP

FRENCH

Course Code: FLU244

Credit Units: 02

**Course Objective:**

To furnish the linguistic tools

- ☐ to talk about daily activities and sports, to express necessities
- ☐ to talk about activities in recent future,
- ☐ to have conversations and perform day-to-day life tasks like enquiring about time, take an appointment
- ☐ to enquire about products and place orders in a shop/ restaurant

**Course Contents:**

**Dossiers 3,4 – pg 25-44**

**Dossier 3: Quelle journée!**

**Actes de Communication:**

**on:**

Parler de ses activités quotidiennes, se situer dans le temps, demander l'heure et la date, parler des sports et des loisirs, exprimer la fréquence

**Dossier 4: Vous désirez ?**

**?**

**Actes de Communication:**

**on:**

Exprimer la quantité, demander et donner le prix, exprimer la nécessité, la volonté et la capacité, comparer et exprimer ses préférences, s'exprimer au futur proche, prendre rendez-vous, s'exprimer au restaurant/dans les magasins

**Grammaire :**

1. l'expression du temps
2. les articles contractés, les quantités indéterminées et déterminées
3. les adverbes de fréquences
4. verbes-faire, prendre, venir, pouvoir, vouloir, les verbes pronominaux
5. la comparaison de l'adjectif
6. la négation (suite)
7. le futur proche

**Examination Scheme:**

Components	CT	V	Att.	CP	H
Weightage (%)	40	40	5	5	10

**Text & References:**

**Text:**

**Le livre à suivre:**

- Andant, Christine et al. A propos A1 Livre de l'élève. Grenoble: Presses universitaires de Grenoble, 2010.
- Andant, Christine et al. A propos A1 Cahier d'exercices. Grenoble: Presses universitaires de Grenoble, 2010.

**Références:**

- Girardeau, Bruno et Nelly Mous. Réussir le DELF A1. Paris: Didier, 2010

**AMITY UNIVERSITY MADHYA PRADESH**

**AMITY SCHOOL OF ARCHITECTURE AND  
PLANNING**

**GWALIOR**



**Bachelor of Architecture**

**YEAR II  
SEMESTER III**

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -II, SEMESTER – III

<b>Course Title</b>	<b>Architectural Design - III</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 301</b>		<b>0</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>5</b>
<b>Course Type</b>	<b>CC</b>						

#### Course Objective:

The course aims to develop student's understanding about association of space, form and functions in spatial planning. It also strives to enable students to translate conceptual strategies into architectural design propositions through design of structures/building/spaces involving simple spatial organizations

#### Course Contents:

##### Module I: Analysis of activities and spaces in a given predominant function

Integration of nature inspired geometric/abstract form into design of mono cellular structures. Emphasis is to develop students design skills through development of concept, appreciation of aesthetics and response to physical context of the site.

##### Suggestive design exercises :

- Florist kiosk, gift or souvenir shop, pavilions, bus shelter, milk booth, cycle stand, entrance gate, traffic police kiosk, ATM etc.
- Architect's studio/artist studio/play school, primary health centers, conventional shopping etc.

##### Module II: Measure drawings .

Preparation of detailed drawings of the buildings measured during the measure drawing camp. Preparation of detailed scaled drawings including - Plans, sections, elevations, and details in an appropriate scale to be presented and documented in the departmental library.

#### Student Learning Outcomes:

Students will be able to translate conceptual thoughts into design through a systematic design process in response to use, need and context of the physical environment

#### Pedagogy for Course Delivery:

Lectures and field visit supporting design exercise. Model on each stage enhancing design development for comprehension of working in studio

Prerequisite:

Min. 2 single day site visits to the reference places to study needs and requirements.  
One week Tour to place of Architectural Importance , to study and document building through measure drawing.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NIL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, R : Review, MSE: Mid semester Exam, VV: Viva-Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams,.

**Text & References:**

*Text:*

1. Francis D.K. Ching, Architecture: Form, Space and Order,
2. Ernst Neuferts Architects Data, Blackwell 2002
3. Alexander Christopher, A Pattern Language,
4. Heller Robert and Salvadori Mario, Structure in Architecture,
5. Walter Gropius, Design Fundamental in Architecture
6. Peter Streens, Pattern of Nature,
7. MeissPieree Von, Elements of Architecture,

*References:*

1. Joseph D.C. and John Callender, Time Saver standards for building types.
2. Julius Panero, Martin Zelnik, Human Dimension and Interior Space, Whitney Library of
3. Design, 1975
4. Jan Bilwa and Leslie Fair Weather, A.J. Metric Handbook
5. Ramsey et al, Architectural Graphic Standards, Wiley 2000
6. Hideaki Hareguchi, A Comparative analysis of 20th century houses, Academy Editions,1988
7. Sam F. Miller, Design Process: A Primer for Architectural and Interior Design, Van Nostrand
8. Reinhold, 1995.
9. Terence Conran, The Essential House Book, Conran Octopus, 1994

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -II, SEMESTER – III

Course Title	Building material & construction Technology - III	L	T	P	S	Credits
Course Code	BAR 302	1	1	0	4	4
Course Type	CC					

#### Course Objectives:

The basic Objective of this course is to provide knowledge about the process of Construction in Timber and its associated and related products.

#### Course Contents:

#### Module I: Temporary Timbering

Temporary Structures and temporary supports – Timbering to trenches, formwork, centering, shoring and underpinning.

#### Module II: Roofing & Flooring Systems in Timber

Concept of spanning and its extension in formation of timber roofs (Lean to roof, closed couple roof, collar roof) and floors.

#### Module III: Vertical Transportation- Stairs in Timber

Concept of vertical connector – Study of staircases – Types on the basis of geometry (Dog Legged Stairs, Circular, open well etc.), Design and Detail of construction of staircase in timber.  
Brief introduction to lifts, escalators & conveyor belts.

#### Module IV: Materials Used for Surface Finishes

Wall finishes:

Basic knowledge of cement, paints, various types of plasters, varnishes and finishes.

Cladding with natural & artificial stones, their composition, sizes, colors, properties, defects and their fixing details.

Roof & Floor finishes:

Contemporary Roofing Material, Clay tiles, Concrete tiles, Ceramic, Vitrified Tiles, Terrazzo, Wooden, Asbestos Cement Sheets, Aluminium Sheets, Galvanized iron Sheets, Stones, Slates, Shingles, Thatch

Adhesives & Sealants:

Introduction, Natural Adhesives, Modifiers & Plasticizers, Sealants

#### Module V: Glass & Fiber Glass

Classification of glass, types of glass, physical properties and uses of glass

**Student Learning Outcomes:**

The student will distinguish and summarize application and construction of timber structures and different surface finishes. The student will illustrate the purpose and construction of different vertical circulation systems.

**Pedagogy for Course Delivery:**

The course will be delivered by means of lectures, Field Trips, and Studio Work and presentation by students ,

**Prerequisite:**

Site visit to Construction Sites of timber. Min. 2 visits in a semester and the physical documentation of the studied work.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>50 %</b>	<b>50 %</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>				<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>				<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>SW</b>	<b>MSE</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>20</b>	<b>20</b>	<b>50</b>

A : Attendance, PR : Presentation, SW : Studio work, C: Case discussion, P: Project, CT: class test, EE: End sem. Exams, VV: Viva Voice.

**Text & References:**

**Text:**

- Building Construction – Materials, M.V. Naik
- Strength of Materials, Khurmi R.S.
- Applied Mechanics and Strength of Materials, Khurmi R.S.
- Civil Engineering Handbook, P.N. Khanna
- R.C.C. Design, Khurmi, Punmia, Sushil Kumar
- Design of Steel Structure, Negi
- Structure in Architecture, Salvadori and Heller

**References:**

- Elements of Structure, Morgan
- Structures in Architecture, Salvadori
- Building Construction, Mackay WB Vol. 1-4
- Construction Technology, Chudley Vol. 1-6
- Elementary Building Construction, Mitchell
- Structure and Fabric, Everet

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -II, SEMESTER – III

Course Title	Structural Design System- III		L	T	P	S	Credits
Course Code	BAR 303						
Course Type	CC		2	0	2	0	3

**Course Objectives:**

This course aims to provide basic knowledge of plain cement concrete & reinforced cement concrete and designing of the structural elements like slab, beam.

Course Contents:

**Module I: Plain cement concrete**

Introduction to cement, types of cement, aggregates, ingredients of plain cement concrete, grades of concrete, water cement ratio, properties of P.C.C, concrete mix

**Module II: Reinforced Cement Concrete**

Introduction & properties of concrete and test, reinforcing steels. requirements of governing & detailing, IS code 456-2000

**Module III: Design Method**

Working and Limit State Design of reinforced concrete sections for bending and shear; Bond strength and development length; Serviceability; Limit states of deflection and cracking

**Module IV: Design Of Beams**

Theory & Design Of Single & Doubly Reinforced Beams, L& T Beams (Simple Supported, cantilever & Continuous), Concept Of Over Reinforced & Under Reinforced Sections and balance section

**Module V: Design Of Slabs**

Classification, Load Estimation, Design Of One Way slab, Two Way slab, Flat slab, Continuous Slab and cantilever slab

Student Learning Outcomes:

The student will review and summarize designing and construction of the structural elements. The student will identify and predict the design implication of these structural elements during the construction process.

Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students.

Prerequisite:

Knowledge of building components and elements.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NIL</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>C</b>	<b>P</b>	<b>S</b>	<b>CT1</b>	<b>CT2</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, C: Case discussion, P: Project, S : Seminar, CT: class test, EE: End sem. Exams.

**Text & References:**

*Text:*

1. Building Construction – Materials, M.V. Naik
2. Strength of Materials, Khurmi R. S.
3. Applied Mechanics and Strength of Materials, Khurmi R. S.
4. Civil Engineering Handbook, P.N. Khanna
5. R.C.C. Design, Khurmi, Punmia, Sushil Kumar
6. Design of Steel Structure, Negi
7. Structure in Architecture, Salvadori and Heller

*References:*

8. Elements of Structure, Morgan
9. Structures in Architecture, Salvadori
10. Building Construction, Mackay WB Vol. 1-4
11. Construction Technology, Chudley Vol. 1-6
12. Elementary Building Construction, Mitchell
13. Structure and Fabric, Everet



# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -II, SEMESTER – III

Course Title	Architectural Graphic Skills ( manual ) - III			L	T	P	S	Credits
Course Code	BAR 304			0	0	0	4	2
Course Type	CC							

**Course Objective:**

To familiarize the students with theoretical, practical and pictorial aspects of architectural drawing.  
 To introduce the graphic treatment of two and three-dimensional drawing. Perception development and presentation of simple architectural forms of buildings.

Course Contents:

**Module I: Perspective Drawing**

One and Two point perspectives of combination of geometrical forms, Building exterior and interior perspectives. Introduction to three-point perspective and basic exercises based on the same

**Module II: Rendering**

Rendering perspectives in different media (Dry and water based color and ink etc.). Presentation techniques in different types of rendering and materials. Variation in color/ ink, as per light position. Use of basic plantation, vehicles etc to introduce scale to building perspectives

**Module III: Sciagraphy**

Values in shades and shadows, Constructing plan shadows (point, line and plane), Constructing shadows in elevations (Point, line and Plane). Short- cut methods for constructing shadows. Introduction of sciagraphy in perspective drawing

Student Learning Outcomes:

Ability to use appropriate representational media, including freehand drawing and computer technology, to convey essential formal elements at each stage of the programming and design process

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

Knowledge of basic drawing and colors.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

C:

**Text & References:**

**Text:**

- Architectural Graphics, C. Leslie Martin
- Perspective for the Architect, Themes and Hudson
- Perspective and Sciography, Shankar Mulik
- Mastering AutoCad, George Omura
- Interior Design, Ahmed Kasu
- Architectural Graphics, Ching Frank
- Engineering Drawing, N.D. Bhatt

**References:**

- A.J. Metric Handbook, editors, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards editor, Boaz Joseph
- Planning – the Architect’s handbook, E and E.O.
- Neufert’s Architect’s data
- Time Saver standards for building types, Editor Joseph D.C. and John Callender.
- Rendering with pen and ink
- Practical Plane and Solid Geometry, H. Joseph and Morris

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -II, SEMESTER – III

Course Title	Basic Design and Visual Art - III			L	T	P	S	Credits
Course Code	BAR 305							
Course Type	AC			1	0	0	4	3

### Course Objective:

Introduction to Art and appreciation of art and its philosophies

Development of sensitivity towards sculpture and mural as an integral part of architecture.

Course Contents:

### Module I: Art and its philosophy

Relevance of art in life, Appreciation of art: Painting, Sculpture and Architecture

### Module II: Collage, Mural, Sculptures (3-D)

Collage with paper and various waste materials with theme and presentation, Mural with different materials on live scale, Sculpture with different materials like P.O.P, Clay etc.

Student Learning Outcomes:

Student will learn to appreciate art and its philosophies and develop the skills of art and graphics.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

Knowledge of basic drawing and colors.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

C:

**Text & References:**

**Text:**

- Perspective for the Architect: Themes and Hudson
- Perspective and Sciography, Shankar Mulik
- Mastering AutoCad: George Omura
- Interior Design: Ahmed Kasu
- Architectural Graphics, Ching Frank
- Engineering Drawing, N.D. Bhatt

**References:**

- Architectural Graphic standards editor, Boaz Joseph
- Planning – the Architect’s handbook, E and E.O.
- Time Saver standards for building types, Editor Joseph D.C. and John Callender.
- Rendering with pen and ink
- Practical Plane and Solid Geometry, H. Joseph and Morris

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -II, SEMESTER – III

<b>Course Title</b>	<b>History of Architecture, Art and Culture - III</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 306</b>			<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>							

**Course Objective:**

Understanding the world architecture during the Greek, Roman and Romanesque Period, Study of specific Architectural characteristics and their origin in above mentioned period

Course Contents:

**Module I: Greek Architecture**

Classical orders and constituent elements of architecture- Column orders and the articulation of temples. Classification of temples, Geometry and symmetry of individual buildings and their relationship with others based on different organizing principles and conditions of site. Study of importance- Acropolis, Agora, Temples, Theatres, Tombs and House forms

**Module II: Roman Architecture**

Multiple building types to correspond the complex social functions and structure. Complex axial organization of forms. Concrete and construction of vaults and domes. Uses of classical orders in surface articulation. Study of important forums, Temples, Basilicas, Theaters, Amphitheatres, Circuses, Tombs, Triumphal arches, palaces, houses and villas.

**Module III: Early Christian Architecture**

Development of early church and Roman basilica. Design of early churches based on Christian religious beliefs. Interiors of churches and the articulation of interiors to create spiritualized space. Study of Italian basilicas and churches

**Module IV: Byzantine Architecture**

Centralization in churches, Centrality and interiors of both cross domed and cross in square plan churches. Interior and exterior of churches with heavenly interiors. Construction of domes over polygonal compartments through the use of pendentives. Study of important churches

**Module V: Romanesque Architecture**

Massiveness and verticality of medieval churches. Combination of five towered structures and longitudinal basilica. Gradual integration of tower from early to later examples. Integration of centralized and longitudinal plans. Articulation of external wall like arcaded interiors resulting in dematerialization of exterior. Study of important cathedrals and churches from Italy and France.

Student Learning Outcomes:

Students will understand and relate Architecture elements and Familiarize with the socio-economic, historical, political influences of time period in Architectural development. Identify the buildings and the major works of the period.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

NILL

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

**Text:**

- “Landscape of Man” of Geoffrey and Susan Jellicoe
- “Understanding Architecture, Its elements, history and meaning” by Leland & M. Roth
- “Concepts of space in Traditional Indian Architecture” by Yatin Pandya
- “The History of Architecture” by Sir Bannister Fletcher
- “Buddist and Hindu Architecture” in India by Satish Grover

**References:**

- History of Architecture – J E Swain
- History of Architecture by Dora Couch
- A study of History – Almond Toynbee
- Traditions in Architecture – Dora Couch

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AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -II, SEMESTER – III

<b>Course Title</b>	<b>Architecture Climatology</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 307</b>		<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>						

### Course Objective:

To acquaint students to various concepts of climate analysis and its use in Architecture.  
To familiarize students with human thermal comfort as an essential function of building

### Course Contents:

#### Module I: Introduction to Climate :

Introduction to climate as a factor of human shelter, comfort and environment. Its classification as global, macro and micro climate. Preparation of sketches showing earth sun relationship and atmospheric depletion. Understanding maps showing ocean currents, wind pattern and wind shifts with respect to seasonal changes. Study of climatic zones along with traditional dwelling units.

#### Module II: Climatic Zones

Study of analysis of climatic zones (Hot –dry, Hot-Humid, Composite, Cold-dry, Cold-humid) in India along with data analysis. Study measurement and analysis of micro climatic elements and its use for a Designer.

#### Module III: Human thermal comfort & Ventilation and air movement

Study of heat exchange process between human body and its surroundings with respect to criteria of comfort. Study of heat exchange processes between building along with periodic change and the calculations required for heat exchange. Study of bio-climate charts its analysis and extension of comfort zone with respect to given data and relating this with (b) of unit 2. Requirement, size and position of openings, air flow pattern inside and outside buildings. Solar passive strategies

#### Module IV: Shading devices

Method of recording the position of sun in relation to earth, solar chart, shadow angle protractor and its application in design of shading devices. Methods of calculating and designing of shading devices.

#### Module V: Day light & Orientation

Natural light, glare, day light factor and day lighting in tropics. Design strategies for Indian climate zones with respect to various climate zones, Orientation of buildings in relation to sun and wind.

### Student Learning Outcomes:

To acquaint students to various concepts of climate that governs the design of the building model.

### Pedagogy for Course Delivery:

The course will be delivered through lectures and practical examples.

Prerequisite:

NILL

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, S : Seminar, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

*Text:*

1. Climatology Fundamentals and application – John R Mather
2. Introduction to Climatology – Anthony Sealey.
3. Climatic Design – Watson Donald.
4. Sun, Wind and Light by G. Z. Brown.
5. Climatically Responsible Energy Efficient Architecture by Arvindkrishnan.
6. Housing Climate and Comfort by Martin Evans.
7. Manual of tropical housing and building, Koenisberger

*References:*

8. Energy Efficient Housing by MiliMajumadar, Published by TERI.
9. Climatologically & Solar data for India – T. N. Seshadry.
10. Manual of tropical housing and building – Koenigsberger&Ingersol.
11. Tropical Architecture – Maxwell Fry & Jane Drew
12. Design Primer for Hot Climate – Allan Konya



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## YEAR -II, SEMESTER – III

Course Title	Architectural workshop – II (Model making)	L	T	P	S	Credits
Course Code	BAR 320	0	1	2	0	2
Course Type	AC					

### Course Objective:

To develop the skill in making models using different materials by understanding the scale and proportion of objects.

### Course Contents:

#### Module I: : Workshop

Understanding the use of different materials in model making – paper, box board, foam board, sun board, thermocol, balsa wood, etc. and use of colors

Use of different types of joints and model making techniques like surface development, etc

Understanding the difference between block and presentation models

#### Module II: : 3-D forms

Use of surface development for creation of different 3-D forms. Working with the clay, thermocole, soap, paper and other innovative materials to create forms and compositions,.

Prepare a scale model for a single activity, single space structure.

### Student Learning Outcomes:

Student will learn To enhance the ability to understand the scale and proportions of the design objectives and to work with different materials.

### Pedagogy for Course Delivery:

The course will be delivered by means of practical working at Model making workshops and tutorials and assignments.

Prerequisite:

NILL

Assessment/ Examination Scheme:

Theory %	Lab/ practical/studio %	End Term Examination
NILL	100 %	VV

**Lab / Practical / Studio Assessment :**

Weightage %	Sessional work						End Term
	50%						50%
Component drop down	A	PR	AS1	AS2	AS3	MSE	VV
Weightage %	05	05	10	10	10	10	50

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

*Text:*

1. Architectural Model Building: Tools, Techniques, & Materials, Roark T. Congdon
2. Model Making: A Basic Guide, Martha Sutherland
3. Engineering Drawing, N.D. Bhatt

*References:*

4. Model Making, Megan Werner
5. Wooden World, John Smith
6. Model-Making: Materials and Methods illustrated edition, David Neat
7. Designing With Models: A Studio Guide To Making And Using Architectural Design Models, Criss B. Mills
8. Model Building for Architects and Engineers, John Taylor
9. Architectural Models, Rolf Janke
10. itecture", Andreas Papadakis
11. New rural housing design theory [Paperback] by NING YU LUO ZHONG ZHAO ZHANG HUI FANG
12. Housing Design: A Manualby Bernard Leupen and HaraldMooij
13. The Housing Design Handbook: A Guide to Good Practiceby Levitt, David

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR – II SEMESTER – III

<b>Course Title</b>	<b>Measure Drawing Tour</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 360</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Course Type</b>	<b>OAC</b>							

**Course Objective:**

To expose the students to the buildings of historical Importance and to document it through physical measurements and transforming these measurements into Architectural drawings.

Course Contents:

**Module I : Selection of the study area :**

Student have to select one field/ area/ building for the detail study.

**Module II Physical measurements :**

Measurement of the Building/ area/ portion in detail.

**Module III: Detailing & Presentation:**

Detailed drawings including plans, sections, elevations, details, working technology, materials and planning aspects of the selected area of study.

Student Learning Outcomes:

Student will learn the methodology of measuring the existing buildings and creating the Architectural drawings of the building and to undergo a deep research in the field of architecture.

Pedagogy for Course Delivery:

Students have to visit one/ two cities/ sites of Architectural importance for a period one week ( 5 to 7 days ) , and identify the historical building/s of Architectural Importance, to measure the Building in parts by the groups of students. After coming back from the tour, students have to produce proper Architectural Drawings through drafting for the documentation of these buildings. These drawings will be retained and preserved by the Institution. This tour may be scheduled in the month of September. The class going for the study tour must be accompanied by the subject teacher/s min. 2 with one female faculty compulsory. The student teacher ration should not be less than 20 :1.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>NA</b>

**Lab / Practical / Studio Assessment :**

Not Applicable.

**Text & References:**

Nil

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



YEAR -II, SEMESTER – IV

Course Title	Architectural Design - IV	L	T	P/S	Credits
Course Code	BAR 401	0	3	4	5
Course Type	CC				

## Course Objective:

The aim of the studio is to introduce students to design of repetitive units focusing on horizontal spatial planning with focus on interrelationship between spaces and their respective hierarchy. Further, the objective is to focus on design evolution with respect to passive design strategies and site context.

## Course Contents:

### Module I: Introduction to basic design Methodologies

Introduction to design methodologies including emphasis on case studies, site and its context, time activity studies as a prelude to design solutions.

## Suggestive design exercises :

- Buildings with multiple uses such as Motels, Youth hostels, Old Age homes, nursery or primary schools, schools for children with specific disabilities, primary health center, banks, neighborhood market, library.

## Student Learning Outcomes:

Students are prepared to apply the process of site planning and are enabled to illustrate their design in response to micro-climate. Students will also modify the building design as a process of varied functions and activities.

## Pedagogy for Course Delivery:

Lectures and field visits supporting design exercise. Model on each stage enhancing design development for comprehension of working in studio.

**Prerequisite:**

Min. 2 single day site visits to the reference place to study needs and requirements for the existing structures with same functions of their project.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A: Attendance, PR: Presentation, R: Review, MSE: Midsemester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: classtest, SW: Studio Work, EE: Endsem. Exams.,

**Text & References:****Text:**

1. Bousmaha Baiche & Nicholas Walliman, Newfert Architect's Data
2. De Chiara & Callender, Time Saver Standards for Building Type
3. O.H. Koenigsberger, Manual of Tropical Housing & Building
4. M. Evans, Housing, Climate & Comfort
5. Donald Watson & Kenneth Labs, Climatic Design
6. Building for a Changing Climate by Peter S. SMI
7. Francis D.K. Ching, A Visual Dictionary of Architecture

**References:**

1. Joseph De Chiara, Michael J Crosbie, Time Saver Standards for Building Types, McGraw Hill Professional 2001.
2. Architectural Graphic Standards editor – Boaz Joseph
3. Ernst Neufert's Architects Data, Blackwell 2002
4. Kevin Lynch, Site planning, MIT Press, Cambridge, 1967

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



YEAR -II, SEMESTER – IV

Course Title	Building Material And Construction Technology – IV	L	T	P/S	Credits
Course Code	BAR 402	1	2	2	4
Course Type	CC				

## Course Objectives:

Course aims to provide knowledge about Cement, its admixtures and RCC. The construction in RCC and how various structural elements of a building like foundation, staircase etc. are detailed out and constructed.

## Course Contents:

### Module I: Cement and RCC Construction

Introduction: Cement, Types of Cement, Properties, Ingredients, suitability requirement for aggregates, grading of aggregates, properties of concrete, role of water in concrete, reinforcement, admixtures, mixing, batching, compaction, curing

### Module II: Foundation and Footing

RCC footing, Composite foundation and Concrete in foundation.

### Module III: Super structure - Frame, Slabs, and Stairs

RCC framed structures, load bearing construction, study of column grid, detailing of RCC slab, reinforcement, beams, columns, and RCC Staircase

**Module IV : Special structure advance concreting** Coffered Slab, Flat Slab. Their applicability as large span structures. Expansion Joint, Retaining walls, Fiber reinforced and Polymer concrete

**Student Learning Outcomes:**

The student will comprehend application and construction of RCC structures. The student will distinguish between various structures used for the construction purpose and will identify the usage as per different locations.

**Pedagogy for Course Delivery:**

The course will be delivered by means of lectures, Field Trips, and Studio Work and presentation by students,

**Prerequisite:**

Site visit to Construction Sites of RCC . Min. 2 visits in a semester and the physical documentation of the studied work.

**Assessment/ Examination Scheme:**

Theory %	Lab/ practical/studio %	End Term Examination
50 %	50 %	EE

**Assessment System :**

Weightage %	Sessional work				End Term
Component drop down	A	PR	SW	MSE	EE
50%	50%				50%
Weightage %	05	05	20	20	50

A: Attendance, PR: Presentation, SW: Studio work, C: Case discussion, P: Project, CT: class test, EE: Endsem. Exams, VV: Viva Voice.

**Text & References:****Text:**

- Building Construction – Materials, M.V. Naik
- Strength of Materials, Khurmi R.S.
- Applied Mechanics and Strength of Materials, Khurmi R.S.
- Civil Engineering Handbook, P.N. Khanna
- R.C.C. Design, Khurmi, Punmia, Sushil Kumar
- Design of Steel Structure, Negi
- Structure in Architecture, Salvadori and Heller

**References:**

- Elements of Structure, Morgan
- Structures in Architecture, Salvadori
- Building Construction, Mackay WB Vol. 1-4
- Construction Technology, Chudley Vol. 1-6
- Elementary Building Construction, Mitchell
- Structure and Fabric, Everet

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## YEAR -II, SEMESTER – IV

<b>Course Title</b>	<b>Structural Design &amp; System- IV</b>	<b>L</b>	<b>T</b>	<b>P/S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 403</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>3</b>
<b>Course Type</b>	<b>CC</b>				

### **Course Objectives:**

This course aims to provide knowledge of soil mechanics including bearing capacity & test of soil and designing of footing & foundations.

### **Course Contents:**

#### **Module I: BASICS OF SOIL MECHANICS:**

Soil formation and resulting soil deposits, nomenclature of different soil types, basic physical properties and their inter-relationships, Indian Standard System of Classification

#### **Module II: BEARING CAPACITY AND TEST OF SOIL**

Safe bearing capacity, bearing capacity failure. Soil exploration methods, standard penetration test, dynamic cone penetration test, concept of bore log for soil description, groundwater table

#### **Module III: FOOTING**

Introduction and guidelines for depth for footing, dimensioning of footings on basis of given values of bearing capacity, allowable pressure and soil bore log, code provisions, use of plate load test data, effect of variation of groundwater table

#### **Module IV: DESIGN OF FOOTING:**

Design of Isolated Footing, Design of Combined Footing, Design of Raft Foundation



**Student Learning Outcomes:**

The student will demonstrate the knowledge gained earlier about the designing of structural elements by computing the same for various types of soil and further enhance their skills by designing various footing/ foundations for variety of soils.

**Pedagogy for Course Delivery:**

The course is delivered through lectures, field trips and presentation by the students.

**Prerequisite:**

Knowledge of building components and elements.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NIL</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>					<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>					<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>C</b>	<b>P</b>	<b>S</b>	<b>CT1</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>50</b>

A : Attendance, C: Case discussion, P: Project, S : Seminar, CT: class test, EE: End sem. Exams.

**Text & References:***Text:*

1. Building Construction – Materials, M.V. Naik
2. Strength of Materials, Khurmi R.S.
3. Applied Mechanics and Strength of Materials, Khurmi R.S.
4. Civil Engineering Handbook, P.N. Khanna
5. R.C.C. Design, Khurmi, Punmia, Sushil Kumar
6. Design of Steel Structure, Negi
7. Structure in Architecture, Salvadori and Heller

*References:*

8. Elements of Structure, Morgan
9. Structures in Architecture, Salvadori
10. Building Construction, Mackay WB Vol. 1-4
11. Construction Technology, Chudley Vol. 1-6
12. Elementary Building Construction, Mitchell
13. Structure and Fabric, Everet

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YEAR -II, SEMESTER – III

Course Title	Architectural Computer Graphics Skills- II	L	T	P/S	Credits
Course Code	BAR 404	0	1	2	2
Course Type	CC				

CONTENT:

## UNIT I INTRODUCTION TO 3D MODELLING

**Project:** Create 3D sculpture using 3D primitives (cubes, spheres etc.)

**Tools:** Slide facilities script attributes, V-port, editing session. Introduction to 3D-modelling technique and construction planes, drawing objects, 3D surfaces setting up elevation thickness and use of dynamic projections in ACAD/3DMAX. Solid modeling with primitive command and Boolean operation.

## UNIT II 3D RENDERING AND SETTING

**Project:** Visualize a building. Explore the potential of lights and camera in 3DMAX and use the same in the model created for the final submission.

**Tools:** Rendering and scene setting to create a photorealistic picture, understanding material mapping, environment setting and image filling in ACAD/3DMAX. Exercise to identify and visualize a building using the above said utilities.

### Student Learning Outcomes:

Students will illustrate conceptual drawings through AutoCAD drawings & explain the design scheme with the help of 2D & 3D AutoCAD drawings.

### Pedagogy for Course Delivery:

The course will be delivered through Practical Tutorials and Lab exercises based on a particular project.

**Prerequisite:**

Basic Knowledge of Computers.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>Practical</b>

**Lab / Practical / Studio Assessment:**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A:Attendance,PR:Presentation,AS:Assignment,MSE:MidsemesterExam,VV:VivaVoice,C:Casediscussion,  
P:Project,CT:classtest,SW:StudioWork,EE:Endsem.Exams.

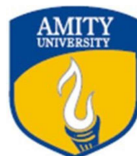
**Text & References:****Text Reading:**

- AutoCADarchitecturaluserguide–AutodeskInc., 1998.
- Shyamtikoo, 'AutoCAD2008'
- DHSanders,'ComputersToday'McGrawHill
- Mitchell,'ComputerAidedArchitecturalDesign',VanNostrand

**References:**

- Broad bent, 'Design in Architecture', Wiley International A. Watt, Fundamentals ofThree-Dimensional ComputerGraphics,AddisWesley,Massachusetts,1989.
- TheIllustratedAutoCAD2002QuickReference,RalphGrabowski,
- Autocad 2000: A Problem-Solving Approach, Shamtikoo. Pub: Thomson Learning,1999Computergraphics and design,Radhakrishnan

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**YEAR -II, SEMESTER – IV**

<b>Course Title</b>	<b>Building Services – I</b>	<b>L</b>	<b>T</b>	<b>P/S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 405</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>				

**Course Objective:**

This course aims to provide knowledge about the building services part covering water supply, sanitation, drainage and waste disposal systems. To assist them in designing Plumbing and drainage system at individual and community level.

**Course Contents:**

**Module I: Water supply**

Introduction to water supply-Need to protect water and requirements of water supply for different building types-storage, distribution. Sources and methods of water supply and distribution of water at macro and micro level (For varying building typologies)

**Module II: Drainage systems**

Concept, design and detailing of drainage systems at micro and macro level-Introduction to municipal drainage systems at town level, Building/Site planning for drainage systems, Rainfall, Stormwater drains, gullies, open drains (construction, gradients, ventilation and maintenance etc.). Concept, design and detailing of rainwater harvesting systems

**Module III: Sanitation- Sewerage**

Purpose and principles, collection and conveyance of waste matter. Sewage treatment plants and by products, gas plants. Sewage system design at building and town level. Sanitary appliances, traps, pipes and joints, drainage in non-municipal areas. Plumbing by laws.

Design of a toilet and kitchen

**Module IV: Sanitation- Solid waste management**

Garbage disposal- Purpose and methods (Incinerator, Dry disposal etc.). Garbage disposal in multistory buildings, Treatment of industrial refuse, Refuse and pollution problems.

**Student Learning Outcomes:**

The student will relate with the building services as laid down within their own houses, residential buildings, campus etc. and will produce a fresh layout according to the knowledge gained.

**Pedagogy for Course Delivery:**

The course will be delivered by means of lectures, Field trips and presentation by students. Site visit in two at a construction site is essential, to make the students understand the systems practically.

**Prerequisite:**

Knowledge of basics of building services.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>					<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>					<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>MSE</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>50</b>

A: Attendance, S: Seminar, PR: Presentation, AS: Assignment, MSE: Midsemester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: classtest, SW: Studio Work, EE: Endsem. Exams.

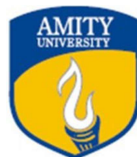
**Text & References:***Text:*

- Watersupply, waste disposal and environmental engineering, Chatterjee
- Watersupply and sanitary engineering, Singh
- Watersupply and sanitation, Shah

*References:*

- Design and practical handbook of plumbing, Mohan & Anand
- Plumbing-Design and practice, Deolalikar
- Civil handbook, Khanna
- Building construction details, Banz
- Maintenance of buildings, Panchdhari
- Kitchen and baths, HBI

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**YEAR -II, SEMESTER – IV**

<b>Course Title</b>	<b>History of Architecture- IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 406</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>				

**Course Objective:**

Understanding the world architecture during the Gothic, Renaissance and Baroque Period; Study of specific Architectural characteristics and their origin in above-mentioned period.

**Course Contents:**

**Module I: Gothic Architecture**

Integration of centralized and longitudinal plans. Spatial and formal integration of Romanesque churches. Integration of wall and vaults. Ribbed vault and the dissolution of external wall to allow light. Sensitivity to light and use of stained glass for mysterious interiors. Need and development of different external buttressing. Study of important cathedrals and churches in France

**Module II: Renaissance Architecture**

Break with medieval churches for sources from Roman antiquity. Spatial centralization through simple addition of independent spatial elements. Use of elementary geometrical forms unified through symmetry and simple mathematical ratios. Reintroduction of anthropomorphic classical orders. Study of palazzos and development of centralized church form through specific examples from Italy.

Study of philosophy and works of various architects – Filippo Brunelleschi, Bartolomeo, Battista Alberti, Donato Bramante.

**Module III: Mannerism**

Conflict and tension in mannerism in place of harmony and order of Renaissance. Dynamic interplay of contrasting elements as against static addition of independent units of Renaissance church. Interplay between man-made and nature in villas as dynamics of urban spaces. Centralized longitudinal and the elongated central church plans. Study of important villas, churches and urban spaces from Italy.

Study of philosophy and works of various architects – Michelangelo, Andrea Palladio.

#### Module IV: : Baroque & Rococo Architecture

Dynamism and systemization of Baroque architecture vitality and spatial richness with underlying systematic organization. Space as constituent element of architecture, as a complex totality and indivisible figure, comprising of interacting spatialelements based on inner and outer forces. Sensitivity to effects of texture, color, light and water. Study of important urban spaces and churches in Italy and Germany. Study of philosophy and works of various architects – Bernini, Christopher Wren.

#### Module V: : Neo-Classical Period (1750- 1830 A.D.)

Definition of Neo-classic with taking few examples of the period. Study the buildings and structures relation to form, ratio, symmetry etc. Study of the different areas in France

#### Student Learning Outcomes:

Students will understand and relate Architecture elements and Familiarize with the socio–economic, historical, political influences of time period in Architectural development. Identify the buildings and the major works of the period.

#### Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

#### Prerequisite:

NILL

#### Assessment/ Examination Scheme:

Theory %	Lab/ practical/studio %	End Term Examination
100 %	NILL	Theory

#### Lab / Practical / Studio Assessment :

Weightage %	Sessional work					End Term
	50%					50%
Component drop down	A	S	AS1	AS2	MSE	Theory
Weightage %	05	05	10	10	20	50

A: Attendance, S: Seminar, PR: Presentation, AS: Assignment, MSE: Midsemester Exam, VV: Viva Voice, C: Casediscussion, P: Project, CT: classtest, SW: Studio Work, EE: Endsem. Exams.

#### Text & References:

##### Text:

- “The History of Architecture” by Sir Bannister Fletcher
- “Glimpses of World History” by Pt. Jawahar Lal Nehru
- “Urban Pattern” by A. B. Gallion
- “Understanding Architecture, Its elements, history and meaning” by Leland & M. Roth
- Prehistory to postmodernism by Marvin & Isabel

##### References:

- History of Architecture, JESwain
- History of Architecture, Dora Couch
- A study of History, Almond Toynbee
- Traditions in Architecture, Dora Couch

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**YEAR -II, SEMESTER – IV**

Course Title	ARCHITECTURAL CLIMATOLOGY	L	T	P/S	Credits
Course Code	BAR 407	1	0	2	2
Course Type	AC				

**Course Objective:**

To expose the students to climatic design principles, their influence on building design and energy conservation through passive techniques.

**Course Contents:**

**Module I: Introduction to Climate:**

Importance of climate in architecture, factors affecting climate, elements of climate- Solar radiation, temperature, wind, humidity and precipitation and their measurement.

**Module II: Climatic Zones**

Study of analysis of climatic zones in India along with data analysis. Study measurement and analysis of micro climatic elements and its use in Architectural design.

**Module III: Human thermal comfort, Ventilation and air movement**

Study of heat exchange process between human body and its surroundings with respect to criteria of comfort.

**Air Temperature**- Factors that influence air temperature – latitude, altitude, seasons, water, trees, areas etc.; inversion of temperature, thermal diffusivity, thermal conductivity and heat transmission through building elements

**Module IV: Shading devices**

Method of recording the position of sun in relation to earth, solar chart, shadow angle protractor and its application in design of shading devices. Methods of calculating and designing of shading devices.

**Module V: Day light & Orientation**

Natural light, glare, daylight factor and daylighting in tropics. Design strategies for Indian climate zones with respect to various climate zones, Orientation of buildings in relation to sun and wind.

**Module VI: Climate and Design Of Buildings**

Design strategies for different climatic zones in India – A Climate responsive design exercises

**Student Learning Outcomes:**

To acquaint students to various concepts of climate that governs the design of the building model.



**Pedagogy for Course Delivery:**

The course will be delivered through lectures and practical examples.

**Prerequisite:**

NILL

**Assessment/ Examination Scheme:**

Theory %	Lab/ practical/studio %	End Term Examination
100 %	NILL	EE

**Lab / Practical / Studio Assessment:**

Weightage %	Sessional work					End Term
	50%					50%
Component drop down	A	S	AS1	AS2	MSE	EE
Weightage %	05	05	10	10	20	50

A:Attendance,S:Seminar,PR:Presentation,AS:Assignment,MSE:MidsemesterExam,VV:VivaVoice,C: Casediscussion,P:Project,CT:classtest,SW:StudioWork,EE:Endsem.Exams.

**Text & References:***Text:*

1. ClimatologyFundamentalsandapplication–JohnRMather
2. IntroductiontoClimatology–AnthonySealey.
3. ClimaticDesign–WatsonDonald.
4. Sun,WindandLightbyG.Z.Brown.
5. ClimaticallyResponsibleEnergyEfficientArchitecturebyArvindkrishnan.
6. HousingClimateandComfortbyMartinEvans.\
7. Manualoftropicalhousingandbuilding,Koenisberger

*References:*

8. EnergyEfficientHousingbyMiliMajumadar,PublishedbyTERI.
9. Climatologically&SolardataforIndia–T.N.Seshadry.
10. Manualoftropicalhousingandbuilding–Koenigsberger&Ingersol.
11. TropicalArchitecture–MaxwellFry&JaneDrew
12. DesignPrimerforHotClimate–AllanKonya

**Course Objective:**

This course is designed to develop the skills of the students in preparing job search artifacts and negotiating their use in GDs and interviews.

**Prerequisites:** NIL

<b>Course Contents / Syllabus:</b>					
<b>1</b>	<b>Module I Employment-Related Correspondence</b>				<b>35% Weightage</b>
	<ul style="list-style-type: none"> <li>• Resume Writing</li> <li>• Covering Letters</li> <li>• Follow Up Letters</li> </ul>				
<b>2</b>	<b>Module II Dynamics of Group Discussion</b>				<b>35% Weightage</b>
	<ul style="list-style-type: none"> <li>• Significance of GD</li> <li>• Methodology &amp; Guidelines</li> </ul>				
<b>3</b>	<b>Module III Interviews</b>				<b>20% Weightage</b>
	<ul style="list-style-type: none"> <li>• Types &amp; Styles of Interview</li> <li>• Fundamentals of Facing Interviews</li> <li>• Interview Frequently Asked Questions</li> </ul>				
<b>4</b>	<b>Module IV Short Stories</b>				<b>10% Weightage</b>
	<ul style="list-style-type: none"> <li>• Proof of the Pudding - O. Henry</li> <li>• “The Lottery” 1948 – Shirley Jackson</li> <li>• The Eyes Have it- Ruskin Bond</li> <li>• Kallu- Ismat Chughtai</li> </ul> <p>All the four stories will be discussed in one class. One Long Question will be set in the Exam from the Text.</p>				
<b>5</b>	<b>Student Learning Outcomes:</b>				
	<ul style="list-style-type: none"> <li>• Develop a resume for oneself</li> <li>• Ability to handle the interview process confidently</li> <li>• Learn the subtle nuances of an effective group discussion</li> </ul>				
<b>6</b>	<b>Pedagogy for Course Delivery:</b>				
	<ul style="list-style-type: none"> <li>• Workshop</li> <li>• Group Discussions</li> <li>• Presentations</li> <li>• Lectures</li> </ul>				
<b>7</b>	<b>Assessment/ Examination Scheme:</b>				
	<b>Theory L/T (%)</b>		<b>Lab/Practical/Studio (%)</b>		<b>End Term Examination</b>
	100%		NA		60%
	<b>Theory Assessment (L&amp;T):</b>				
<b>Continuous Assessment/Internal Assessment</b>				<b>End Term Examination</b>	
<b>Component (Drop down)</b>	<b>Class Test</b>	<b>Group Presentation</b>	<b>Group Discussion</b>		<b>Attendance</b>

	<b>Weightage (%)</b>	10%	15%	10%	5%	60%	
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**Text:** *Sharma, R.C. & Krishna Mohan. Business Correspondence and Report Writing: A Practical approach to Business & Technical Communication, New Delhi: Tata McGraw Hill & Co. Ltd., 2002.*

*Rai, Urmila & S.M. Rai. Business Communication, Mumbai: Himalaya Publishing House, 2002.*

*Rizvi, M.Ashraf. Effective Technical Communication, New Delhi: Tata McGraw Hill, 2007.*

**Reference:** *Brusaw, Charles T., Gerald J. Alred & Walter E. Oliu. The Business Writer's Companion, Bedford: St. Martin's Press, 2010.*

*Lewis, Norman. How to Read Better and Faster. New Delhi: Binny Publishing House.*

**Additional Reading:** Newspapers and Journals

## BEHAVIOURAL SCIENCE - IV

### VALUE & ETHICS FOR PERSONAL & PROFESSIONAL DEVELOPMENT

Course Code:BSU 443

Credit

Units: 01

#### Course Objective:

This course aims at imparting an understanding of Values, Ethics & Morality among students for making a balanced choice between personal & professional development.

#### Course Contents:

#### Module I: Introduction to Values & Ethics

(2 Hours)

Meaning & its type

Relationship between Values and Ethics

Its implication in one's life

#### Module II: Values Clarification & Acceptance

(2Hours)

Core Values-Respect, Responsibility, Integrity, Resilience, Care, & Harmony

Its process-Self Exploration

Nurturing Good values

#### Module III: Morality

(2 Hours)

Difference between morality, ethics & values

Significance of moral values

#### Module IV: Ethical Practice

(2 Hours)

Ethical Decision making

Challenges in its implementation

Prevention of Corruption & Crime

#### Module V: Personal & Professional Values

(2 Hours)

Personal values-Empathy, honesty, courage, commitment

Professional Values-Work ethics, respect for others

Its role in personality development

Character building-"New Self awareness"

#### Module VI: End-of-Semester Appraisal

(2 Hours)

Viva Voce based on personal journal

Assessment of Behavioural change as a result of training

Exit Level Rating by Self and Observer

#### Examination Scheme:

Components	SAP	A	Mid Term Test (CT)	VIVA	Journal for Success (JOS)
Weightage (%)	20	05	20	30	25

#### Text & References:

Cassuto Rothman, J. (1998). From the Front Lines, Student Cases in Social Work Ethics. Needham Heights, MA: Allyn and Bacon.

Gambrill, E. & Pruger, R. (Eds). (1996). Controversial Issues in Social Work Ethics, Values, & Obligations. Needham Heights, MA: Allyn and Bacon, Inc.

## FRENCH – IV

Course Code: FLU 444

Credit Units: 02

### Course Objective:

To strengthen the language of the students in both oral and written

To revise the grammar in application and the communication tasks related to topics covered already

To get acquainted with the current social communication skills, oral (dialogue, telephone conversations, etc.) and written and perform simple communication tasks such as

- talking about personal habits
- narrating events in the past, marking the stages, using appropriate connectors
- holding conversations on telephone
- asking for /giving advices

### Course Contents:

**Dossier 7 – pg 65-74, Dossiers 1, 2**

**and 3 (révision) Dossier 7 : au boulot**

#### Actes de Communication :

Parler des habitudes et décrire une situation à l'imparfait, comparer (nom et verbe), qualifier (qui, que) s'exprimer au téléphone, demander et donner un avis.

#### Dossiers 1, 2, 3 – Révision

Exercices d'écoute, production orale et écrite.

#### Grammaire :

1. l'imparfait,
2. la comparaison du verbe/du nom ; mieux/meilleur
3. les pronoms relatifs

### Examination Scheme:

Components	CT	V	Att.	CP	H
Weightage (%)	40	40	5	5	10

### Text & References:

#### Text:

#### Le livre à suivre:

- Andant, Christine et al. A propos A1 Livre de l'élève. Grenoble: Presses universitaires de Grenoble, 2010.
- Andant, Christine et al. A propos A1 Cahier d'exercices. Grenoble: Presses universitaires de Grenoble, 2010.

#### Références :

- Girardeau, Bruno et Nelly Mous. Réussir le DELF A1. Paris: Didier, 2010

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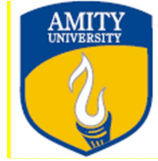


**Bachelor of Architecture**

**YEAR III  
SEMESTER V**

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## YEAR -III, SEMESTER – V

<b>Course Title</b>	<b>Architectural Design - V</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 501</b>		<b>0</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>5</b>
<b>Course Type</b>	<b>CC</b>						

### Course Objective:

To understand the multiuse institutional, and public buildings at community level.

### Course Contents:

#### Module I: Understanding the culture fabric and its reflection on built form.

Design of an Institutional or public building at the community scale and understanding essential character of an Institution. Influence of culture, land, climate, technology, and finance on the building design.

### Suggestive design exercises :

- Community hall, Secondary schools, Bank Buildings, religious Institutions, shopping plaza.

### Student Learning Outcomes:

Students will learn to understand cross functioning influences of community and its impact on built form.

### Pedagogy for Course Delivery:

Lectures and field visit supporting design exercise. Model on each stage enhancing design development for comprehension of working in studio

Case study tours to the buildings relevant to the design exercise, to understand the design aspects, function requirements, space requirements and practical issues of the buildings of specific uses.

### Prerequisite:

Min. 2 single day site visits to the reference places to study needs and requirements for the existing structures with same functions of their project.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NIL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, R : Review, MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams,.

**Text & References:**

**Text:**

1. BousmahaBaiche & Nicholas Walliman, Newfert Architect's Data
2. DeChiara&Callender, Time Saver Standards for Building Type
3. O.H. Koenigsberger, Manual of Tropical Housing & Building
4. M. Evans, Housing, Climate & Comfort
5. Donald Watson & Kenneth Labs, Climatic Design
6. Building for a Changing Climate by Peter S. SMI
7. Francis D.K. Ching, A Visual Dictionary of Architecture

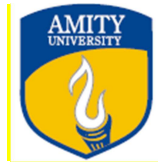
**References:**

1. Joseph De Chiara, Michael J Crosbie, Time Saver Standards for Building Types, McGraw Hill Professional 2001.
2. Architectural Graphic standards editor – Boaz Joseph
3. Ernst Neuferts Architects Data, Blackwell 2002
4. Kevin Lynch, Site planning, MIT Press, Cambridge, 1967



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## YEAR -III, SEMESTER – V

Course Title	Building material & construction Technology - V	L	T	P	S	Credits
Course Code	BAR 502	1	1	0	4	4
Course Type	CC					

### Course Objectives:

Course aims to provide knowledge about Ferrous and non ferrous metals , Manufacturing, properties, quality and its use as a building construction material. Construction in Steel and how various structural elements of a building like foundation, staircase etc. are detailed out and constructed.

### Course Contents:

#### Module I: Ferrous Metals

Brief study on manufacturing, properties and uses (of cast iron, wrought iron, pig iron and steel)  
Market forms of steel, properties, uses and current advancements

#### Module II: Construction using ferrous metals

Types of connections in steel, steel in different structural members (foundation, column, beam)  
Steel Truss Frames (saw tooth roof truss with north light glazing, simple trusses in steel),  
Universal beam, Girders, castellated beams, plate girders, lattice girders.  
Gates (collapsible & entrance gates).  
Steel Components (doors, windows, stairs)

#### Module III: Non – Ferrous Metals

Brief study of Aluminium & Aluminium alloys, properties and uses  
Uses of metals such as copper & copper based alloys, tin, cadmium etc. in construction

#### Module IV : Construction using non-ferrous metals

Aluminium sections, Doors and windows in Aluminium, Aluminium products used in construction.

### Student Learning Outcomes:

The student will comprehend application and construction of Steel structures. The student will demonstrate the use of knowledge as gained regarding construction materials and structural elements in steel and aluminum and differentiate the materials as per different locations. The student will interpret and practice to use the details during the designing of their buildings.

### Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Field Trips, and Studio Work and presentation by students ,

Prerequisite:

Site visit to Construction Sites of Steel. Min. 2 visits in a semester and the physical documentation of the studied work.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>50 %</b>	<b>50 %</b>	<b>EE</b>

### Assessment System :

	<b>Sessional work</b>				<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>				<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>SW</b>	<b>MSE</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>20</b>	<b>20</b>	<b>50</b>

A : Attendance, PR : Presentation, SW : Studio work, C: Case discussion, P: Project, CT: class test, EE: End sem. Exams, VV: Viva Voice.

### Text & References:

#### Text:

- Building Construction – Materials, M.V. Naik
- Strength of Materials, Khurmi R.S.
- Applied Mechanics and Strength of Materials, Khurmi R.S.
- Civil Engineering Handbook, P.N. Khanna
- R.C.C. Design, Khurmi, Punmia, Sushil Kumar
- Design of Steel Structure, Negi
- Structure in Architecture, Salvadori and Heller

#### References:

- Elements of Structure, Morgan
- Structures in Architecture, Salvadori
- Building Construction, Mackay WB Vol. 1-4
- Construction Technology, Chudley Vol. 1-6
- Elementary Building Construction, Mitchell
- Structure and Fabric, Everet

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## YEAR -III, SEMESTER – V

Course Title	Structural Design System- V	L	T	P	S	Credits
Course Code	BAR 503					
Course Type	CC	2	1		0	3

### Course Objectives:

This course aims to provide knowledge of steel structures (beams, footing) used for construction purposes and their fixing details along with connections & joints (riveted, welded).

Course Contents:

#### Module I: STEEL AS STRUCTURAL MATERIAL

Steel, masonry and B.I.S. specifications, design loads as per B.I.S. codes

#### Module II: STEEL CONNECTIONS

Riveted and welded Simple connections and connections subjected to moments (simple cases only)

#### Module III: MEMBERS SUBJECTED TO AXIAL COMPRESSION

Steel struts and columns including built-up columns

#### Module IV: STEEL BEAMS

Steel beams and built-up sections.

#### Module V: BASES AND FOOTINGS

Types, design of slabs and gusseted bases.

Student Learning Outcomes:

The student will analyze and apply the knowledge acquired about structural elements, techniques and materials to their design problems, and select the best possible solution whenever designing for the projects to show the understanding of the course of structures.

Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students.

Prerequisite:

Knowledge of building components and elements.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NIL</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>C</b>	<b>P</b>	<b>S</b>	<b>CT1</b>	<b>CT2</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, C: Case discussion, P: Project, S : Seminar, CT: class test,  
EE: End sem. Exams.

**Text & References:**

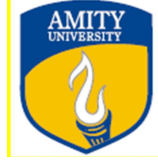
*Text:*

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6. Design of Steel Structure, Negi
7. Structure in Architecture, Salvadori and Heller

*References:*

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10. Building Construction, Mackay WB Vol. 1-4
11. Construction Technology, Chudley Vol. 1-6
12. Elementary Building Construction, Mitchell
13. Structure and Fabric, Everet

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**YEAR -III, SEMESTER – V**

<b>Course Title</b>	<b>Architectural Graphic Skills ( Computer aided ) - V</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 504</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>Course Type</b>	<b>CC</b>						

**Course Objective:**

To Equip students with the technical knowledge of various Architectural software and its application for better presentation skills.

**Course Contents:**

**Module I: Learning SKETCHUP**

Introduction to sketch up software.  
 Modeling with sketch up  
 Walkthrough  
 Printing techniques

**Module II : Learning Revit**

Introduction to Revit  
 Introduction to modeling.  
 Made one design problem in Revit,  
 Printing techniques

**Module III: Learning Auto Cad**

Advance commands in Auto Cad.  
 Working on layouts.  
 Made one design problem in Auto cad,  
 Printing techniques

**Student Learning Outcomes:**

Students will illustrate and express their work, design and ideas on different types of Design software using computers, will enhance presentation and precision in work.

**Pedagogy for Course Delivery:**

The class will be supplemented by class presentations and preparation of drawings with the help of different software's on computer.

Prerequisite:

Basic Knowledge of Computers.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>Practical</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

**Text Reading:**

1. AutoCAD architectural user guide – Autodesk Inc., 1998.
2. Shyamtikoo, 'AutoCAD 2008'
3. DH Sanders, 'Computers Today' McGraw Hill
4. Mitchell, 'Computer Aided Architectural Design', Van Nostrand

**References:**

1. Broad bent, 'Design in Architecture', Wiley International A. Watt, Fundamentals of Three-Dimensional Computer Graphics, Addis Wesley, Massachusetts, 1989.
2. The Illustrated AutoCAD 2002 Quick Reference, Ralph Grabowski,
3. Autocad 2000: A Problem-Solving Approach, Shamtikoo. Pub: Thomson Learning, 1999 Computer graphics and design, Radhakrishnan

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -III, SEMESTER – V

<b>Course Title</b>	<b>Building Services – II ( Electrical, HVAC )</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 505</b>			<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>							

**Course Objective:**

Integration of electrical system with building design & application of indoor and out door lighting in appropriate way in building planning and designing.

To expose the students to the areas of air-conditioning, heating and ventilation

Course Contents:

**Module I: ELECTRICAL SYSTEMS**

Basic of electricity, single/Three phase supply, protective devices in electrical installation. Earthing for safety, types of earthing, ISI Specifications. Electrical installations in buildings, types of wires, wiring systems and their choice, planning electrical wiring for building. Main and distribution boards, Transformers and Switch gears, Layout of Substations.

**Module II : LIGHTING DESIGN**

Classification of lighting, artificial light sources, Spectral energy distribution, Luminous efficiency, Color temperature, Color rendering. Design of modern lighting, Lighting for stores, offices, schools, hospitals and house lighting. Factors affecting visual tasks. Elementary idea of special features required and minimum level of illumination required for physically handicapped and elderly in building types.

**Module III: : HEAT VENTILATION AND AIR  
CONDITIONING (HVAC)**

Behavior of heat propagation, thermal insulating materials and their co-efficient of thermal conductivity. General methods of thermal insulation: Thermal insulation of roofs, exposed walls. Ventilation: Definition and necessity, system of ventilation. Principles of air conditioning, Essentials of air-conditioning system. Air distribution system-fans, filters, ductwork, outlets, dampers.

Student Learning Outcomes:

The student will relate with the building services as laid down within their own houses, residential buildings, campus etc. and will produce a fresh layout according to the knowledge gained.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Field trips and presentation by students.

Site visit min. two at a construction site is essential, to make the students understand the systems practically.

Prerequisite:

Knowledge of basics of building services.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, S : Seminar, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

- Building Construction - B.C. Punmia
- Building Construction - Rangawalla
- Building Construction and Materials – Gurcharan Singh
- Architectural Graphics – Ching Frank
- Modern Air-Conditioning, Heating and Ventilation: Carrer and G. Pitman.
- Air Conditioning and Ventilation, Servems and Fellows, John Wiley
- Architectural Acoustics: E. David
- An Introduction to Building Physics: Narsmhan



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## YEAR -III, SEMESTER – V

Course Title	Working Drawing Studio.		L	T	P	S	Credits
Course Code	BAR 506		0	1	0	2	2
Course Type	AC						

### Course Objective:

Learn to make and understand Architectural Construction and execution drawings along with the their detailing.

Course Contents:

#### Module I: Working Drawings and construction drawings :

Preparing construction drawings with dimensions, details, and levels – Plans, sections, elevations, details, electrical and plumbing drawings, finishes and flooring details, Drawings for the municipal approval.

Student Learning Outcomes:

Students will learn to make and understand the construction drawings issued through the Architects office for the actual construction on site.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and through projects by students.

Prerequisite:

NILL

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

C:

**Text & References:**

**Text & References:**

- Residential const. prof. Solver, Brat John
- Working drawing hand book, Keith Styles- Architectural Press Oxford – 1998
- Buildings with large clay blocks, Theodor Hugues, Klaus Greilich, Christine Peter
- Arch. Drawing and light construction, Edward J. Muller, James G. Gausett Philip A.

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## YEAR -III, SEMESTER – V

<b>Course Title</b>	<b>Interior &amp; landscape Design Studio</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 507</b>			<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>Course Type</b>	<b>AC</b>							

**Course Objective:**

Understanding the theoretical and practical aspects of designing the interiors of a building. To acquaint the student with the various natural elements used to design transitional and outside spaces and establish a linkage between nature and the built environment

Course Contents:

**Module I: Introduction and basic principles of Interior design**

Elements and principles of design in context of interior design- Space, Light, Color, Texture, Form, Shape Size, Volume, Plane, Balance, Symmetry, Rhythm, Proportion, Scale, Emphasis etc.

**Module II: Elements of Interior Design :**

Understanding furniture layout, furniture design, false ceiling, wall paneling, and other elements of Interior design, with the construction technique, types of furniture and their usage, construction materials and fabrics used in furniture designing, cost estimation, understanding works of great masters

**Module III: Introduction and basic principles of Landscape design**

Definition, scope, landscape architecture in relation to architecture. Landscape design elements and principles, historical review of gardens in India, Persia, Japan, Italy, France and England , contemporary landscape design

**Module IV: Elements of Landscape Design :**

Understanding Landscape layout, with all its elements like Plants- its type, suitability, paving, roads, pathways, exterior lighting, water bodies etc. with the construction technique, types, construction materials, cost estimation, understanding works of great masters.

Student Learning Outcomes:

Student will learn the basic principal of Landscape and Interior Architecture and its practical use in construction Industry.

Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Assignments and group presentation by students.

Prerequisite:

Knowledge of basic Art and materials.

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

<b>Weightage %</b>	<b>Sessional work</b>						<b>End Term</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>50%</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

C:

**Text & References:**

**Text & References:**

**Text:**

- An Introduction to Landscape architecture by M. Laurie.
- An Introduction to Landscape Design by H. V. Hubbard
- Fundamentals of Landscaping and Site Planning by James B. Root.
- History of Garden Design by D. Clifford
- Tropical Garden Plants in Color by Bose and Chowdhury
- Architectural Graphics: C. Leslie Martin
- Perspective for the Architect: Themes and Hudson
- Perspective and Sciography, Shankar Mulik
- Interior Design: Ahmed Kasu
- Architectural Graphics – Ching Frank

**References:**

- Color and Design for Every Garden by Ortloff and Raymore
- Design with Nature by I. Mcharg
- The Way We Live by Alfresco
- New Landscape Design by Robert Holden
- Fundamentals of Ecology by M. C. Dash.
- Landscape Detailing by Michael Ittlewood.
- A.J. Metric Handbook, editors, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards editor – Boaz Joseph
- Planning – the Architect’s handbook, E and E.O.

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## YEAR – III SEMESTER – V

Course Title	Study Tour	L	T	P	S	Credits
Course Code	BAR 560	0	0	0	0	3
Course Type	OAC					

### Course Objective:

To provide exposure to the students to the real architectural world and to make them aware of the construction techniques of the real time of different places of Architectural importance

Course Contents:

#### Module I : Selection of the study area :

Student have to select one field/ area/ building for the detail study.

#### Module II: Case study :

Detailed work out through case studies and requirements of the field of study area to formulate the working guidelines.

#### Module III: Detailing & Presentation:

Detailed drawings including plans, sections, elevations, details, working technology, materials and planning aspects of the selected area of study.

Student Learning Outcomes:

Student will learn the methodology to undergo a deep research in the field of architecture.

Pedagogy for Course Delivery:

Students have to visit one/ two cities/ sites of Architectural importance for a period one week ( 5 to 7 days ) which should not be within the city of the institution. This Study tour may be scheduled in the month of September. The class going for the study tour must be accompanied by the subject teacher/s min. 2 with one female faculty compulsory. The student teacher ration should not be less than 20 :1.

Assessment/ Examination Scheme:

Theory %	Lab/ practical/studio %	End Term Examination
NILL	100 %	NA

### Lab / Practical / Studio Assessment :

Not Applicable.

### Text & References:

Nil

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**YEAR -III, SEMESTER – VI**

<b>Course Title</b>	<b>Architectural Design - VI</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 601</b>		<b>0</b>	<b>2</b>	<b>0</b>	<b>6</b>	<b>5</b>
<b>Course Type</b>	<b>CC</b>						

**Course Objective:**

The studio aims at imparting knowledge to students on design of high-rise building, understanding the correlation between function, structure, material, construction and services with respect to energy efficiency, complexity in planning, latest technologies, relevant building byelaws, and landscape.

**Course Contents:**

**Module I: High Rise building- planning and construction technologies.**

Designing building to understand the relation between function and structure. The structural system as a design element in relation with understanding of materials and construction technologies and various services needed for the function of the building.

**Suggestive design exercises :**

- High rise building like multistoried apartments, commercial buildings, and multiplexes.

**Student Learning Outcomes:**

Students will discover the complexity of high rise commercial buildings and appraises the design with Mechanical and physical services.

**Pedagogy for Course Delivery:**

Lectures and field visit supporting design exercise. Model on each stage enhancing design development for comprehension of working in studio

Case study tours to the buildings relevant to the design exercise, to understand the design aspects, function requirements, space requirements and practical issues of the buildings of specific uses.

**Prerequisite:**

Min. 2 single day site visits to the reference places to study needs and requirements for the existing structures with same functions of their project.

**Assessment/ Examination Scheme:**

Theory %	Lab/ practical/studio %	End Term Examination
NIL	100 %	VV

**Lab / Practical / Studio Assessment :**

	Sessional work						End Term
Weightage %	50%						50%
Component drop down	A	PR	R1	R2	R3	MSE	VV
Weightage %	05	05	10	10	10	10	50

A : Attendance, PR : Presentation, R : Review, MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.,

**Text & References:****Text:**

8. BousmahaBaiche & Nicholas Walliman, Newfert Architect's Data
9. DeChiara&Callender, Time Saver Standards for Building Type
10. O.H. Koenigsberger, Manual of Tropical Housing & Building
11. M. Evans, Housing, Climate & Comfort
12. Donald Watson & Kenneth Labs, Climatic Design
13. Building for a Changing Climate by Peter S. SMI
14. Francis D.K. Ching, A Visual Dictionary of Architecture

**References:**

5. Joseph De Chiara, Michael J Crosbie, Time Saver Standards for Building Types, McGraw Hill Professional 2001.
6. Architectural Graphic standards editor – Boaz Joseph
7. Ernst Neuferts Architects Data, Blackwell 2002
8. Kevin Lynch, Site planning, MIT Press, Cambridge, 1967

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**YEAR -III, SEMESTER – VI**

<b>Course Title</b>	<b>Advance Building material &amp; construction Technology - VI</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 602</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>4</b>
<b>Course Type</b>	<b>CC</b>					

**Course Objectives:**

Course aims to provide knowledge about latest and new alternative materials and technologies prevailing in the market. Properties, quality and its use as a building construction material.  
 To get the students acquainted with fire fighting system and its technicalities.

**Course Contents:**

**Module I: Advance Glazing systems**

Structural glazing, Curtain walls, facade skins, glass walls and stone cladding – Design, detailing, materials used and latest technologies.

**Module II: Alternative Building materials**

Eco-friendly and low cost building materials and construction technologies – Mud Bricks, Hollow concrete blocks, aerated concrete blocks, fly ash bricks, Ferro cement construction.

**Module III: Fire fighting system**

Understanding fire fighting systems, technologies and regulations – fire hydrants, Sprinklers, smoke detectors, fire escape stairs, evacuation system, and buildings regulations.

**Student Learning Outcomes:**

The student will analyze and apply the knowledge acquired about the façade treatments, and the alternative building materials in various construction elements and techniques in their building designs.

**Pedagogy for Course Delivery:**

The course will be delivered by means of lectures, Field Trips, market surveys and Studio Work and presentation by students ,

**Prerequisite:**

Site visit to related Construction Sites, and market surveys . Min. 2 visits in a semester and the physical documentation of the studied work.



**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>50%</b>	<b>50 %</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>				<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>				<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>SW</b>	<b>MSE</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>20</b>	<b>20</b>	<b>50</b>

A : Attendance, PR : Presentation, SW : Studio work, C: Case discussion, P: Project, CT: class test, EE: End sem. Exams, VV: Viva Voice.

**Text & References:****Text:**

- Building Construction – Materials, M.V. Naik
- Strength of Materials, Khurmi R.S.
- Applied Mechanics and Strength of Materials, Khurmi R.S.
- Civil Engineering Handbook, P.N. Khanna
- R.C.C. Design, Khurmi, Punmia, Sushil Kumar
- Design of Steel Structure, Negi
- Structure in Architecture, Salvadori and Heller

**References:**

- Elements of Structure, Morgan
- Structures in Architecture, Salvadori
- Building Construction, Mackay WB Vol. 1-4
- Construction Technology, Chudley Vol. 1-6
- Elementary Building Construction, Mitchell
- Structure and Fabric, Everet

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**YEAR -III, SEMESTER – VI**

<b>Course Title</b>	<b>Structural Design System- VI</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 603</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Course Type</b>	<b>CC</b>					

**Course Objectives:**

This course aims to provide knowledge of Complex structural forms .

**Course Contents:**

**Module I: FORMS OF STRUCTURES**

Concept of Bulk active structures and Form active structures, Vector active structures, Surface active structures.

**Module II: VAULTS SHELLS ND DOMES**

Arches , Vault and domes. Shells and Membrane structure.

**Module III: TENSILE AND PNEUMATIC STRUCTURES**

Cable Structures, Folded plate structures, and Pneumatic structures.

**Student Learning Outcomes:**

The student will analyze and apply the knowledge acquired about structural elements, techniques and materials to their design problems, and select the best possible solution whenever designing for the projects to show the understanding of the course of structures.

**Pedagogy for Course Delivery:**

The course is delivered through lectures, field trips and presentation by the students.

**Prerequisite:**

Knowledge of building components and elements.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NIL</b>	<b>EE</b>

**Assessment System :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>C</b>	<b>P</b>	<b>S</b>	<b>CT1</b>	<b>CT2</b>	<b>EE</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, C: Case discussion, P: Project, S : Seminar, CT: class test,  
EE: End sem. Exams.

**Text & References:***Text:*

1. Building Construction – Materials, M.V. Naik
2. Strength of Materials, Khurmi R. S.
3. Applied Mechanics and Strength of Materials, Khurmi R. S.
4. Civil Engineering Handbook, P.N. Khanna
5. R.C.C. Design, Khurmi, Punmia, Sushil Kumar
6. Design of Steel Structure, Negi
7. Structure in Architecture, Salvadori and Heller

*References:*

8. Elements of Structure, Morgan
9. Structures in Architecture, Salvadori
10. Building Construction, Mackay WB Vol. 1-4
11. Construction Technology, Chudley Vol. 1-6
12. Elementary Building Construction, Mitchell
13. Structure and Fabric, Everet

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**YEAR -III, SEMESTER – VI**

<b>Course Title</b>	<b>Architectural Graphic Skills ( Computer aided ) - VI</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 604</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>2</b>
<b>Course Type</b>	<b>CC</b>						

**Course Objective:**

To Equip students with the technical knowledge of various Architectural software and its application for better presentation skills.

**Course Contents:**

**Module I: Learning 3Ds Max**

Introduction to 3-D Max  
 Introduction to modeling.  
 Materials and mapping, assigning materials, Creating Transparencies.  
 Introduction of lighting, Lighting effects, Shadows  
 Setting of views, walkthrough etc.  
 Printing techniques of rendered / final images.

**Module II : Learning 3D Animation (3Ds MAX)**

Advanced usage of 3Ds Viz / Max for development of animations as applicable to Architectural projects. Complete scenic development, material and lighting as well as camera positioning for moving images. Saving and viewing animations.

**Module III: Learning 3D Animation basics**

Basic 3D animation  
 Rendering of moving images using 3Ds Viz / Max.  
 Use of Moving camera as per defined path etc.

**Student Learning Outcomes:**

Students will illustrate and express their work, design and ideas on different types of Design software using computers, will enhance presentation and precision in work.

**Pedagogy for Course Delivery:**

The class will be supplemented by class presentations and preparation of drawings with the help of different software's on computer.

**Prerequisite:**

Basic Knowledge of Computers.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>Practical</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>AS1</b>	<b>AS2</b>	<b>AS3</b>	<b>MSE</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice,  
C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:****Text Reading:**

- AutoCAD architectural user guide – Autodesk Inc., 1998.
- 1. Shyamtikoo, 'AutoCAD 2008'
- 2. DH Sanders, 'Computers Today' McGraw Hill
- 3. Mitchell, 'Computer Aided Architectural Design', Van Nostrand

**References:**

1. Broad bent, 'Design in Architecture', Wiley International A. Watt, Fundamentals of Three-Dimensional Computer Graphics, Addis Wesley, Massachusetts, 1989.
2. The Illustrated AutoCAD 2002 Quick Reference, Ralph Grabowski,
3. Autocad 2000: A Problem-Solving Approach, Shamtikoo. Pub: Thomson Learning, 1999 Computer graphics and design, Radhakrishnan

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**YEAR -III, SEMESTER – VI**

<b>Course Title</b>	<b>Building Services – III ( Fire Safety and mechanical circulation )</b>			<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 605</b>							
<b>Course Type</b>	<b>AC</b>			<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>

**Course Objective:**

To acquaint the student with the fire safety regulation and security systems to be adopted in the buildings.

Study the development codes and bye-laws of fire safety regulations

**Course Contents:**

**Module I: FIRE FIGHTING**

Behavior of fire, Combustible contents, causes of fire, Mechanism of fire spread in building and prevention, concepts in fire protection. High temperature effects and combustibility of building materials and structure, Fire resistance of buildings, firefighting installation and requirements. Passive and active fire precautions, site planning and fire brigade access. Heat sensitive detectors, smoke detectors, Automatic water system

**Module II : FIRE SAFETY**

Fire safety standards, fire & human behavior, means of escape, design and planning of escape halts and corridors to final exit. Classification of buildings based on occupancy. Psychological aspects, concept of panic, domestic, Multiple occupancy and Hospital fires.

**Module III: INTELLIGENT BUILDINGS**

Introduction to Intelligent Buildings, definitions, building elements, descriptions, definitions and components, historical overview, Energy and Intelligent Buildings, Energy consumption in buildings, micro climate, human comfort in buildings, energy conservation in buildings, active and passive systems, advanced building energy management systems.

**Module IV: BUILDING AUTOMATION**

Building Automation, Intelligent control of building components, automating building services system integration and optimization with building envelope, communication systems and safety and security systems, Performance Evaluation and Standards, Building performance evaluation and intelligent building standard.

**Student Learning Outcomes:**

The student will relate with the building services as laid down within their own houses, residential buildings, campus etc. and will produce a fresh layout according to the knowledge gained.

**Pedagogy for Course Delivery:**

The course will be delivered by means of lectures, Field trips and presentation by students. Site visit min. two at a construction site is essential, to make the students understand the systems practically.

**Prerequisite:**

Knowledge of basics of building services.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, S : Seminar, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:****Text:**

- Fire Protection for the Design Professional, D. Jenson
- Industrial Fire Hazard Hand Book
- Industrial Fire Protection

**References:**

- BIS CODES: 2189, 2190, 8096, 928, 957, 3614, 2175, 931, 494, 2171, 6382, 5896, 6070, 3844, 1648, 1646, 1526, 5495

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**YEAR -III, SEMESTER – VI**

Course Title	Estimation, Costing and Specification	L	T	P	S	Credits
Course Code	BAR 606	1	1	0	0	2
Course Type	AC					

**Course Objective:**

To familiarize the students with the theory and practice of estimation.  
 To develop the understanding of writing the specifications as per the prescribed standard.

**Course Contents:**

**Module I: Specification :**

Definition, importance and uses of specification – principles and practice; method of writing specification; Writing general and detailed specification for various common building materials and construction work items. Specification of BIS and other institutions; general Abbreviations used in specifications. Specifications writing for the following items – Bricks; sand; cement; coarse aggregate; water; reinforcement; storing and handling of materials; Earth work in foundation; PCC; RCC; First class brick work in cement mortar; half brick thick partition in cement mortar; reinforced brick work; DPC; glazed tiles in skirting and dadoo; cement plaster; joinery in wood, steel & aluminum; painting to walls – cement paint, oil bound distemper, acrylic emulsion, enamel paint ; painting to joinery ; varnishing etc.

**Module II: Estimation :**

Introduction to estimation and definitions of terms related to estimates, Types of estimates, preparation of abstract and detailed estimates; preparation of B.O.Q. ,use of schedule of rates; break up of material requirements, making estimate of two room structure, various terminology used for in construction work for preparation of estimates.

**Module III: Analysis of Rates**

Principles of analysis of rates, factors affecting the rate analysis, workout the rate analysis of labor and materials of different building works. Rate analysis for: earth work, concrete works, first class brick work, reinforced brick work, cement plastering, DPC with cement mortar/ concrete, finishing (cement paint, distemper, acrylic emulsion, enamel paint) to walls & ceiling etc.

**Student Learning Outcomes:**

Will apply the knowledge of preparing estimates of construction projects along with the skill to develop specifications of materials and construction techniques essential for preparing estimates in the design projects.

**Pedagogy for Course Delivery:**

Lecture based learning along with exercises as tutorials related on the lecture delivery.



**Prerequisite:**

NILL

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, S : Seminar, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:****Text:**

1. Estimating and Costing in Civil Engineering: B. N. Dutta
2. Handbook on Building Economics and Productivity, Central Building Research Institute, Roorkee: S.C. Singh and G.C. Sofat

**References:**

1. Civil Engineering Handbook – P.N. Khanna
2. M. Chakraborty; Estimating, Costing, Specification & Valuation
3. D.D.Kohli&R.C.Kohli ; A Text Book of Estimating and Costing

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**YEAR -III, SEMESTER – VI**

<b>Course Title</b>	<b>Construction and Site Management</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 607</b>						
<b>Course Type</b>	<b>AC</b>		<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>

**Course Objective:**

Introduction of networking techniques and construction planning practices.  
 Use of construction equipment and method along with quality control

**Course Contents:**

**Module I: Introduction to Networking Techniques**

Introduction to networking techniques: Use of computer aided CPM and PERT for planning, scheduling and control of construction works; computerized network scheduling and bar charts; errors in networks; types of nodes and node numbering system.

**Module II: Introduction Construction Planning**

Planning for construction and site facilities using network; preparation of construction schedule for jobs, materials, equipment, labour and budgets using CPM

**Module III: Construction Quality Control**

Construction quality control and inspection; significance of variability in estimation of risk; construction cost control; crashing of network

**Student Learning Outcomes:**

**Students will learn** networking techniques and construction planning practices.  
 Use of construction equipment and method along with quality control

**Pedagogy for Course Delivery:**

Lecture based learning along with exercises as tutorials related on the lecture delivery.

**Prerequisite:**

NILL

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:****Text:**

- Construction, Planning Management – U.K. Srivastav
- Construction Planning, Equipment and Methods – R.L. Peurifoy
- Construction Performance control ny networks – H.N. Ahuja
- Construction Project Management – K.K. Chilkar
- Construction Planning and Management – M.B. Dhir & S.P. Ghilot

**References:**

- Project Management – S. Chaudhary
- Project Management with CPM and PERT – Moder and Philipese
- Construction Method and Techniques – Mullick Mullind

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**YEAR -III, SEMESTER – VI**

Course Title	Theory Of Design	L	T	P	S	Credits
Course Code	BAR 608	1	1	0	0	2
Course Type	AC					

**Course Objective:**

Understanding the architectural development in different periods over centuries in history.  
 Understanding the Need, demand and supply in different periods by various great designers.

**Course Contents:**

**Module I : Theory**

Discuss the evolution and development in design process from past to present. Discuss the principles and Elements of design followed in buildings in past and how the trend changed over the period as per demand.

Compare the buildings of past with the present and study the technological, form, shape, design, planning and construction material etc. from earlier days to present day.

**Module II: Historical study**

Purity of form with structural honesty obtained in different periods – Roman, Romanesque, Baroque etc. leading to modern Architecture. Study of important palaces and public buildings in Britain and France.

**Module III: Modern Architecture**

Belief in creation of “new” and “ideal” world through the fundamentals of true and original. Origin of geometry, nature, simplicity, abstraction, non-objective, construction and technology available at that times. Equating technology and progress with present functionalism and appropriateness.

Works of great masters – Frank Lloyd Wright, Le-Cobusier, Alvar Alto, Mies Vender, Louis Kahn, Louis Sullivan, Edwin Lutyen etc.

**Module IV: Post Independence and Contemporary Architecture (1950 onwards)**

Introduction to post independence development in India, Introduction to contemporary development in India and other parts of world, various architectural theories, thinking, building materials and construction technology adopted in high rise structures, architectural styles and urbanism.

**Module V: Great Masters of the period**

Works of the great masters of the period in India i.e.- Charles Chorrea, B.V. Doshi, Raj Rewal, Achyut Knvinde, Hafeez Contractor etc.

**Student Learning Outcomes:**

Students will understand the challenges of Tradition within Architecture and the process of Critical assessment and reinterpretation.

**Pedagogy for Course Delivery:**

The course is delivered through lectures, field trips and presentation by the students

**Prerequisite:**

Nil

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:****Text:**

- “Glimpses of World History” by Pt. Jwahaar Lal Nehru
- “Urbn Pattern” by A.B. Gallion
- “The History of Architecture” by Sir Bannister Fletcher
- “Buddist and Hindu Architecture” in India by Satish Grover
- Modern Architecture by Curtis W.J.
- The History of Architecture by Tadgel C.

**References:**

- History of Architecture – J E Swain
- History of Architecture by Dora Couch
- A study of History – Almond Toynbee

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**YEAR -III, SEMESTER – VI**

<b>Course Title</b>	<b>Disaster Management (Earthquake Resistant)</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 610</b>						
<b>Course Type</b>	<b>EC</b>		<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>

**Course Objective:**

- To understand the fundamentals of Earthquake and the basic terminology
- To inform the performance of ground and buildings.
- To familiarise the students with design codes and building configuration
- To understand the various types of construction details to be adopted in a seismic prone area.
- To apply the knowledge gained in an architectural design assignment.

**Course Contents:**

**Module I : Fundamentals of earthquakes**

- a) Earths structure, seismic waves, plate tectonics theory, origin of continents, seismic zones in India.
- b) Predictability, intensity and measurement of earthquake
- c) Basic terms- fault line, focus, epicentre, focal depth etc.

**Module II: Site planning, performance of ground and buildings**

- a) Historical experience, site selection and development
- b) Earthquake effects on ground, soil rupture, liquefaction, landslides.
- c) Behaviour of various types of building structures, equipments, lifelines, collapse patterns
- d) Behaviour of non-structural elements like services, fixtures in earthquake-prone zones

**Module III: Seismic design codes and building configuration**

- a) Seismic design code provisions – Introduction to Indian codes
- b) Building configuration- scale of building, size and horizontal and vertical plane, building proportions, symmetry of building- torsion, re-entrant corners, irregularities in buildings like short stories, short columns etc.

**Module IV: Various types of construction details**

- a) Seismic design and detailing of non-engineered construction- masonry structures, wood structures, earthen structures.
- b) Seismic design and detailing of RC and steel buildings
- c) Design of non-structural elements- Architectural elements, water supply, drainage, electrical and mechanical components

**Module V: Urban planning and design**

- a) Vulnerability of existing buildings, facilities planning, fires after earthquake, socioeconomic impact after earthquakes.
- b) Architectural design assignment- Institutional masonry building with horizontal spread and height restriction, multi-storeyed RC framed apartment or commercial building.

**Student Learning Outcomes:**

To provide basic knowledge of earthquake resistant design concepts to students of Architecture, as it has become evident in recent years that some of the seismically active areas of the world are located within Indian and live lost during past earthquakes due to damage of homes and other buildings are enormous.

**Pedagogy for Course Delivery:**

The course is delivered through lectures, field trips and presentation by the students.

**Prerequisite:**

Nil

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>					<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>					<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>PR</b>	<b>MSE</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>20</b>	<b>50</b>

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**Text & References:****Text:**

- “Guidelines for earthquake resistant non-engineered construction, National Information centre of earthquake engineering (NICEE, IIT Kanpur, India)
- 2. C.V.R Murthy, Andrew Charlson. “Earthquake design concepts”, NICEE, IIT Kanpur India.

**References:**

- Ian Davis (1987) Safe shelter within unsafe cities” Disaster vulnerability and rapid urbanisation, Open House International, UK
- 2. Socio-economic developmental record- Vol.12, No.1, Jan-Feb 2005
- 3. Learning from Practice- A review of Architectural design and construction experience after recent earthquakes- Joint USA-Italy workshop, Oct.18-23, 1992, Orvieto, Italy.



**FORMAT FOR COURSE CURRICULUM**

**UG: Semester VI**

**Course Title: Communication Skills VI**

**Credit Units: 1**

**Course Code: BCU 641**

**Course Objective:** The main emphasis of this course is to enable students to learn the dynamics of social communication and to demonstrate the ability to learn the nuances of informal communication.

**Prerequisites:** NIL

L	T	P/ S	SW/F W	TOTAL CREDIT UNITS
	0	0	0	1

<b>Course Contents / Syllabus:</b>		
<b>1.</b>	<b>Module I Social Communication Essentials</b> <ul style="list-style-type: none"> <li>• Small talk</li> <li>• Building rapport</li> <li>• Expand social and Corporate Associations</li> <li>• Informal Communication: Grapevine, Chat</li> </ul>	<b>30% Weightage</b>
<b>2.</b>	<b>Module II Workplace Interpersonal Skills</b> <ul style="list-style-type: none"> <li>• Understanding Social Communication in Workplace environment.</li> <li>• Employee feedback: Assess employee performance and satisfaction.</li> <li>• Simulation</li> <li>➤ <b>Humour in Communication-Use of 'Puns'</b></li> <li>➤ <b>Entertainment and Communication (Infotainment)</b></li> <li>• Infotainment and Social Media</li> <li>• Entertainment in Journalism</li> <li>➤ <b>Social Networking</b></li> </ul>	<b>25% Weightage</b>
<b>3.</b>	<b>Module III Visual Code / Social Etiquette</b> <ul style="list-style-type: none"> <li>• Power Dressing</li> <li>• Fine Dining</li> <li>• Office Party Etiquette</li> <li>• Business Travel Etiquette</li> <li>➤ <b>Work Place and Business Etiquette</b></li> <li>• Proper Greetings</li> <li>• Thank You Notes</li> <li>• Telephonic Manners/ Voice Mail Etiquette</li> </ul>	<b>35% Weightage</b>



	<ul style="list-style-type: none"> <li>• Business Salutation Etiquette</li> <li>• Guest Etiquette</li> <li>• Cubicle Etiquette</li> <li>• Business Card Etiquette</li> <li>➤ <b>Different Cultural Etiquette &amp; Protocol</b></li> </ul>																			
4.	<b>Module IV Prose</b> <ul style="list-style-type: none"> <li>• Secret of Socrates - Dale Carnegie</li> <li>• My Financial Career-Stephen Leacock</li> <li>• The Luncheon - W. Somerset Maugham</li> <li>• The National Flag - Jawahar Lal Nehru</li> </ul> <p>All the four stories will be discussed in one class One Long Question will be set in the Exam from the Text</p>	<b>10% Weightage</b>																		
5.	<b>Student Learning Outcomes:</b> <ul style="list-style-type: none"> <li>• To communicate contextually in specific personal and professional situations with courtesy.</li> <li>• To inject humour in their regular interactions.</li> <li>• To strengthen their creative learning process through individual expression and collaborative peer activities.</li> </ul>																			
6.	<b>Pedagogy for Course Delivery:</b> <ul style="list-style-type: none"> <li>• Workshop</li> <li>• Group Discussions</li> <li>• Presentations</li> <li>• Lectures</li> </ul>																			
7.	<b>Assessment/ Examination Scheme:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Theory L/T (%)</th> <th style="width: 33%;">Lab/Practical/Studio (%)</th> <th style="width: 33%;">End Term Examination</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">100%</td> <td style="text-align: center;">NA</td> <td style="text-align: center;">70%</td> </tr> </tbody> </table> <b>Theory Assessment (L&amp;T):</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">Continuous Assessment/Internal Assessment</th> <th style="text-align: center;">End Term Examination</th> </tr> </thead> <tbody> <tr> <td style="width: 20%;"><b>Components (Drop down)</b></td> <td style="width: 30%; text-align: center;">CIE</td> <td style="width: 30%; text-align: center;">Attn</td> <td style="width: 20%;"></td> </tr> <tr> <td><b>Weightage (%)</b></td> <td style="text-align: center;">25%</td> <td style="text-align: center;">5%</td> <td style="text-align: center;">70%</td> </tr> </tbody> </table>	Theory L/T (%)	Lab/Practical/Studio (%)	End Term Examination	100%	NA	70%	Continuous Assessment/Internal Assessment			End Term Examination	<b>Components (Drop down)</b>	CIE	Attn		<b>Weightage (%)</b>	25%	5%	70%	
Theory L/T (%)	Lab/Practical/Studio (%)	End Term Examination																		
100%	NA	70%																		
Continuous Assessment/Internal Assessment			End Term Examination																	
<b>Components (Drop down)</b>	CIE	Attn																		
<b>Weightage (%)</b>	25%	5%	70%																	

**Text: Krizan, Merrier, Logan & Williams. Effective Business Communication, New Delhi: Cengage, 2011**

- **Communication and Organizational Culture.** Keyton. Joann. Sage Publications

- **Social Communication (Frontiers of Social Psychology).**Fiedler, Klaus. Psychology Press

**Reference: Cypherpunks: Freedom and the Future of the Internet.** [Assange, Julian Assange](#). OR Books.

**Additional Reading: Newspapers and Journals**



**Course Title: Stress & Coping Strategies**

**Subject Name: Behavioural Science - VI**

**Course Level: Undergraduate**

**Course Code: BSU-643**

**Total Hours: 10**

**Semester-VI**

**Course Credit: 01**

**Course Objective:**

- To develop an understanding the concept of stress its causes, symptoms and consequences.
- To develop an understanding the consequences of the stress on one's wellness, health, and work performance.

**Course Contents:**

**Module I: Stress**

**(2 Hours)**

- Meaning & Nature
- Characteristics
- Types of stress

**Module II: Stages and Models of Stress**

**(2 Hours)**

- Stages of stress
- The physiology of stress
- Stimulus-oriented approach.
- Response-oriented approach.
- The transactional and interact ional model.
- Pressure – environment fit model of stress.

**Module III: Causes and symptoms of stress**

**(2Hours)**

- Personal
- Organizational
- Environmental

**Module IV: Consequences of stress**

**(2 Hours)**

- Effect on behavior and personality
- Effect of stress on performance
- Individual and Organizational consequences with special focus on health

**Module V: Strategies for stress management**

**(2 Hours)**

- Importance of stress management
- Healthy and Unhealthy strategies
- Peer group and social support
- Happiness and well-being



## Student learning outcomes

- Student will able demonstrate thorough understanding of stress and its effects
- Student will able to learn various coping strategies to deal stress effectively so to overcome the consequences and impact of stress on their health and wellbeing, ultimately it will enhance their performance.

## Examination Scheme:

Evaluation Components	Attendance	Journal of Success (JOS)	Social Awareness Program (SAP) SAP Report/SAP Presentation	End Semester Exam	Total
Weightage (%)	5	10	15	70	100

## Suggested Readings:

- Blonna, Richard; Coping with Stress in a Changing World: Second edition
- Pestonjee, D.M, Pareek, Udai, Agarwal Rita; Studies in Stress And its Management
- Pestonjee, D.M.; Stress and Coping: The Indian Experience

**French syllabus - Programme d'études pour le français**  
**All U.G. Programmes – Foreign**

**LanguageFrançais - VI**

**Course Code: FLU 644**

**Credit units: 02**

**Course Objective:**

To provide the students with the linguistic tools to enhance social communication skills and be able

- To approve or disapprove a behavior
- To congratulate somebody
- To express possession

**Course Contents:**

**Dossier 1 – pg 7-16,**

**Dossier 1 : Au fil du temps Actes de Communication :**

Approuver ou désapprouver l'attitude de quelqu'un (désapprouver le comportement des parents)  
Féliciter quelqu'un (féliciter un participant dans le courrier des lecteurs)  
Parler de sa santé (exprimer les problèmes de santé chez le médecin)  
Accueillir/Interpeller (conversation entre l'invité et l'hôte)

**Thèmes abordés :**

Les trentenaires (dire si l'on partage les valeurs et les attentes des trentenaires)  
Le sport (sport et famille, du sport pour tous les goûts)  
La profession : Les psychologues (débat - pour ou contre le besoin d'un psy, la télé-confession)

**Grammaire :**

1. Le présent (révision)
2. Les prépositions et les verbes
3. Les pronoms possessifs
4. Les verbes réciproques

**Examination Scheme:**

Components	INTERNAL			TOTAL	EXTERNAL	GRAND TOTAL
	MID-SEM	VIVA-VOCE	ATTENDANCE		END SEMESTER	
Weightage (%)	15	10	5	30	70	100

**Text & References:**

**Text:**

**Le livre à suivre:**

- Carezzi-Vialaneix, Christelle et al. A propos A2 Livre de l'élève. Grenoble: Presses universitaires de Grenoble, 2010.
- Carezzi-Vialaneix, Christelle et al. A propos A2 Cahier d'exercices. Grenoble: Presses universitaires de Grenoble, 2010.

**Références :**

- Girardeau, Bruno et Mous, Nelly. Réussir le DELF A1. Paris: Les Éditions Didier, 2010.

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**SCHOOL OF ARCHITECTURE AND PLANNING**

**GWALIOR**



**Bachelor of Architecture**

**YEAR IV**

**SEMESTER VII**

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -IV, SEMESTER – VII

<b>Course Title</b>	<b>Architectural Design – VII ( Housing )</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 701</b>		<b>0</b>	<b>4</b>	<b>0</b>	<b>10</b>	<b>9</b>
<b>Course Type</b>	<b>CC</b>						

### Course Objective:

The studio aims to explore design fundamentals and bye-laws for designing Housing projects in urban areas integrating allied disciplines of architectural field like landscape, environment, cost effective technologies and energy conservation etc. to provide a holistic approach indeed.

### Course Contents:

#### Module I: Housing and neighborhood design.

Design development through different progressive stages include – Site zoning and layout, design area brief, dwelling unit types, building plans, housing cluster planning, neighborhood concept, physical and social infrastructure facilities, housing utilities in relation with the urban development regulations, building by-laws, and Architectural controls. Inferences from case studies of public/government/private/cooperative housing schemes, its need, advantages and disadvantages and execution process.

### Suggestive design exercises :

- Housing projects, Redevelopment schemes, Rehabilitation schemes, within 10 -15 Acre land areas,

**Student Learning Outcomes:**

The student will demonstrate knowledge of architectural design for housing projects/schemes and application of building bye-laws for group housing. The students will analyze the housing schemes in urban area, along with necessary infrastructure, services and amenities.

**Pedagogy for Course Delivery:**

Tutorial and studio based learning with live and literature case studies

**Prerequisite:**

Understanding developed from previous Architectural Design exercises and theoretical base provided by theory courses.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NIL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, R : Review, MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams,.

**Text & References:**

**Text Reading:**

1. Ching, F.D.K., "A Visual Dictionary of Architecture", John Wiley & Sons
2. Norberg-Schulz, C., "Principles of Modern Architecture", Andreas Papadakis
3. New rural housing design theory [Paperback] by NING YU LUO ZHONG ZHAO ZHANG HUI FANG

**References:**

1. Babur Mumtaz and Patweikly, Urban Housing Strategies, Pitman Publishing, London, 1976.
2. Martin Evans, Housing, Climate and Comfort, Architectural Press, London, 1980.

# AMITY UNIVERSITY

## SCHOOL OF PLANNING AND ARCHITECTURE, AUMP



### YEAR -IV, SEMESTER – VII

Course Title	Advance construction Technology - VII	L	T	P	S	Credits
Course Code	BAR 702	1	1	0	4	4
Course Type	CC					

#### Course Objectives:

Course aims to provide knowledge about latest technologies adopted for high rise and on reclaimed lands. Most modern techniques for fast pace construction and for large span structures.

#### Course Contents:

##### Module I: Advance Foundation

Design, detailing, and technical detailing of Advance deep and shallow foundations for high rise and sky scrapers. Pile foundations, Raft foundations.

##### Module II: Fast pace construction

Methods and types of construction system adopted for fast pace construction – lift slab construction technology, slip foam construction technology, prefabricated construction system, pre stressed and post tensioning system.

##### Module III: large Span Structures

Details and design of large span steel structures – Geodesic dome, and Space frame structures.

#### Student Learning Outcomes:

The student will analyze and apply the knowledge acquired about the most modern construction system and technologies.

#### Pedagogy for Course Delivery:

The course will be delivered by means of lectures, Field Trips, market surveys and Studio Work and presentation by students.

#### Prerequisite:

Site visit to related Construction Sites, and market surveys . Min. 2 visits in a semester and the physical documentation of the studied work.

#### Assessment/ Examination Scheme:



<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Assessment System :**

	<b>Sessional work</b>				<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>				<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>SW</b>	<b>VV</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>30</b>	<b>10</b>	<b>50</b>

A : Attendance, PR : Presentation, SW : Studio work, C: Case discussion, P: Project, CT: class test, EE: End sem. Exams, VV: Viva Voice.

**Text & References:**

**Text:**

- Building Construction – Materials, M.V. Naik
- Strength of Materials, Khurmi R.S.
- Applied Mechanics and Strength of Materials, Khurmi R.S.
- Civil Engineering Handbook, P.N. Khanna
- R.C.C. Design, Khurmi, Punmia, Sushil Kumar
- Design of Steel Structure, Negi
- Structure in Architecture, Salvadori and Heller

**References:**

- Elements of Structure, Morgan
- Structures in Architecture, Salvadori
- Building Construction, Mackay WB Vol. 1-4
- Construction Technology, Chudley Vol. 1-6
- Elementary Building Construction, Mitchell
- Structure and Fabric, Everet

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## YEAR -IV, SEMESTER – VII

Course Title	Professional Practice & Management	L	T	P	S	Credits
Course Code	BAR 703	2	1	0	2	3
Course Type	AC					

### Course Objective:

To acquaint the students with the responsibility, scale of charges and Architect's conduct in Architectural practice.  
To understand the office and administration of an Architect's office, Tenders and contracts

### Course Contents:

#### Module I: Role of professional bodies

Role of different bodies i.e. COA, IIA, Uttar Pradesh Architect Association, their working constitution and bye-laws, categories of membership and election procedures.

#### Module II: Architect's Act 1972 & Office and administration

Detail study of the Act and procedures of membership. Office set up and administration, Filing and recording, nature of partnership, registration of firm and dissolution, copy rights of drawings, practice procedures and conduct etc.

#### Module III: Scale of charges and code of professional conduct

Conditions of engagement of Architect – Duties, Responsibilities, Liabilities of the profession, scale of charges, mode of payment etc. Clauses governing conduct of professional practice.

#### Module IV: Tendering and Contract

Tendering - Types of tenders and tender documents, tender drafts notices, Inviting Tenders, Procedure of opening and selection Analysis and report of owner.

Contract – Types, conditions of contract – Earnest money, Security deposit, Retention money, Mobilization fund, Bank Guarantee, Architect's Instructions, Defects, Certificates and payments, Penalties, Insurance, Liquidated damages, Termination of contract, breach of contract.

#### Module V: Valuation

Introduction, Techniques, elements and factors affecting valuation, Methods, Types – renewal or lease/ extension of lease, standard rent, easement right, dilapidation, valuation of landed property, comparable cost of scale, purchase and mortgage, Capital gain tax, wealth tax, property tax and other taxes.

### Student Learning Outcomes:

Student will be acquainted with the roles and responsibilities of an Architect and functioning of the Office.

**Pedagogy for Course Delivery:**

Lecture based learning along with exercises as tutorials related on the lecture delivery. Preparing a report of study of an Architects office.

**Prerequisite:**

NILL

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

**Text:**

- COA document of Architect's Act 1972
- Architectural Practice in India – Prof. Madhav Deobhakta
- Construction Project Management – K.K. Chilkar
- Construction Planning and Management – M.B. Dhir & S.P. Ghilot

**References:**

- Professional Practice in India – S.K. Sahu
- Code of Architectural Practice – B.M. Basu
- Project Management with CPM and PERT – Moder and Philipese
- Construction Method and Techniques – Mullick Mullind

# AMITY UNIVERSITY

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## YEAR -IV, SEMESTER – VII

<b>Course Title</b>	<b>Green Buildings</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 704</b>						
<b>Course Type</b>	<b>EC</b>		<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>

### Course Objective:

To familiarize students with principles, techniques and guidelines for planning and design of energy conserving architecture

Course Contents:

#### Module I: Introduction

Classification and characteristics of resources, Use and exploitation of resources, Resource use in architecture / exploitation of resources for development, Resource shortage and constraint, Concepts and need for conservation, Renewable and non-renewable resources.

#### Module II: Energy conserving architecture

Principles of energy conservation, Pattern of energy use in buildings, Technologies and methods of conservation, Economic, technological and environmental implications.

#### Module III: Design of energy conserving architecture

Fundamentals of planning and design, Elements and principles of design, Study of design problems, Application of relevant principles for design solutions, Innovative and appropriate construction technologies.

Student Learning Outcomes:

To familiarize with the technologies used for energy conserving Architecture .

Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students

Prerequisite:

**Nil**

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

- Alternative Natural Energy Sources in Building Design: Davies and Schubert.
- Design with nature: I. McHarg
- The Ecological Context: H. McHale.

**References:**

- Human Ecosystems: W. B. Jr. Clapham.
- Review our dying planet: S. Devi.
- Energy Conservation Standards: for building design, construction and operation, S. Fred Dubin.

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -IV, SEMESTER – VII

Course Title	Disaster resistant Structures.			L	T	P	S	Credits
Course Code	BAR 705							
Course Type	EC			1	0	0	2	2

### Course Objective:

To expose the students to the various theoretical and practical aspects of disaster resistant structures.

Course Contents:

#### Module I: Introduction

Overview of disaster; major natural disaster – flood, tropical cyclone, droughts, landslide, heat waves, earthquakes, fire hazards etc. Basic understanding on fragile eco-system, physiographic and geo-chemical data mapping, soil and topography, hydrological factors, climatic conditions

#### Module II: Designing and Planning

Designing the disaster resistant building using modern construction techniques and materials

#### Module II: Renovation and re-strengthening

Retrofitting and methods of strengthening the damaged buildings due to natural disasters.

Student Learning Outcomes:

Students will learn and understand the effects of natural disasters on built environment and its precautions and rectifications.

Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students

Prerequisite:

**Nil**

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

**Text:**

- Dynamics of Structures by A. K. Chopra
- Building Configuration and Seismic Design, C. Arnold and R. Reitherman
- EARTHQUAKES An Architect's Guide to Non-Structural Seismic Hazard, H. J. Lagorio

**References:**

- The Seismic Design Handbook, F. Naeim
- Design for Earthquakes, J. Ambrose and D. Vergun

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR – IV SEMESTER – VII

Course Title	Study Tour		L	T	P	S	Credits
Course Code	BAR 760		0	0	0	0	3
Course Type	OAC						

### Course Objective:

To provide exposure to the students to the real architectural world and to make them aware of the construction techniques of the real time of different places of Architectural importance

Course Contents:

#### Module I : Selection of the study area :

Student have to select one field/ area/ building for the detail study.

#### Module II: Case study :

Detailed work out through case studies and requirements of the field of study area to formulate the working guidelines.

#### Module III: Detailing & Presentation:

Detailed drawings including plans, sections, elevations, details, working technology, materials and planning aspects of the selected area of study.

Student Learning Outcomes:

Student will learn the methodology to undergo a deep research in the field of architecture.

Pedagogy for Course Delivery:

Students have to visit one/ two cities/ sites of Architectural importance for a period one week ( 5 to 7 days ) which should not be within the city of the institution. This Study tour may be scheduled in the month of September. The class going for the study tour must be accompanied by the subject teacher/s min. 2 with one female faculty compulsory. The student teacher ration should not be less than 20 :1.

Assessment/ Examination Scheme:

Theory %	Lab/ practical/studio %	End Term Examination
NILL	100 %	NA

Lab / Practical / Studio Assessment :

Not

Text & References:

Applicable.



# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP  
, AUMP



YEAR -IV, SEMESTER – VIII

Course Title	Practical Training	L	T	P	S	Credits
Course Code	BAR 050	0	0	0	0	25
Course Type	NTCC					

### Course Objective:

To understand the various aspects architecture practice and will learn about the office management other professional dealings through the practical exposure of the Architectural practice, construction and execution.

### Course Contents:

Student shall work for a period of 140 days in an Office of an Architect approved by the Council of Architecture and by the institution. Student shall submit monthly report, critical appraisal of the built project.

Students are required to submit all the drawings on which they have worked and supervised by the Architect under whom they completed the training. The report can be compiled under the following heads:

- Planning and Design
- Presentation drawings
- Working drawings
- Municipal Drawings
- Services design details
- Interiors
- Models
- Site supervision/ Visit
- Estimation & Costing
- Specification

The students shall prepare exhaustive formal Log Book issued by the College, week by week, which will cover detailed record of the work done in the office, site visit reports, interviews with clients and any other agency, interaction with principal architect etc. The professional with the seal of the organization, under whose guidance the student worked, will sign the report and also his reflection about the student's work and his overall approach and attitude towards the office work.

### Student Learning Outcomes:

The student will learn to interpret the link between architectural study and practice and the professional aspects of office management.

**Pedagogy for Course Delivery:**

Students has to go for a 140 working days of practical Office training with the practicing Architect approved by the institute, in a city not to be student's home town. After successful completion of the training students shall prepare a three set of report in a prescribed format containing the details of the work done during the training period which shall include the work report, critical appraisal of the built project, field documentation, architectural details and drawings on which students have worked. All the details and drawings must be duly signed by the principal Architect and must bear the seal of the organization. Students shall also submit the Certificate issued by the Principal Architect of the firm stating the successful completion of his/ her training.

**Prerequisite:**

Knowledge gained till all previous semesters.

**Assessment/ Examination Scheme:**

Theory %	Lab/practical/studio %	End Term Examination
NILL	100%	VV

**Lab / Practical / Studio Assessment :**

	Sessional work			End Term
Weightage %	50%			50%
Component drop down	Report	Log Book	Viva	VV
Weightage %	10	10	30	50

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C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams,.

**Text & References:**

NILL ( Not Applicable )

**AMITY UNIVERSITY MADHYA PRADESH**

**AMITY SCHOOL OF ARCHITECTURE AND  
PLANNING**

**GWALIOR**



**Bachelor of Architecture**

**YEAR V  
SEMESTER IX**

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -V, SEMESTER – IX

Course Title	Architectural Design – VIII ( Urban Design )	L	T	P	S	Credits
Course Code	BAR 901	0	4	0	10	9
Course Type	CC					

### Course Objective:

To understand the city/ part of the city, read the issues and after a methodical analysis design the spaces at the urban scale- linking people and their activities with the built fabric in an urban context

### Course Contents:

#### Module I: Understanding Buildings in Urban Context.

Introduction to Urban Design. Need for urban design. Visualization of image of the city and its elements. Perception of urban environment: Kevin Lynch's Principles. Understanding the organization and articulation of urban spaces. Urban spaces and urban activities and their response pertaining to Human Sensitivities. Elements of townscape – Gordon Cullen.

A brief background of the Intervention area shall be given to the students. The various subheads in this module shall be; study of historical evolution of the area, studying similar contexts and case examples, Documentation of the Study area (all layers), and also Secondary data Assimilation. The project would be a medium sized urban design intervention.

Analyzing the Documented data, be it the primary data like land-use, movement networks, open space analysis, historicity, condition of the buildings, heights of the buildings as well as secondary data like demographic data, socio economic surveys, services etc. and drawing inferences on the same.

Generation of Concept, Design development, Area program Statement, User Space Analysis, Building Envelopes, Urban Design Guidelines for the area etc. Part of scheme must be done in groups to develop teamwork and multi-faceted approach to design. Models should be made compulsory at every stage for the students to be able to visualize the Design Context.

Analysis leads to generation of issues which when addressed impact the area on a macro scale. Also a vision for integrating the study area into a larger context of the city. Large scale models to be used for assessing site conditions and restrictions.

### Suggestive design exercises :

- Redevelopment of area in Urban context.
- River front developments
- ISBT's, Metro stations etc.

**Student Learning Outcomes:**

Students will interpret and assess urban envelopes and spaces in context of city design. Further, students will relate human activities with built fabric

**Pedagogy for Course Delivery:**

Documentation through field and Site Observation, and presentation.

Case study and site study tours in a group to the city, area, or buildings relevant to the design exercise, to understand the design aspects, function requirements, space requirements and practical issues of the buildings of specific uses.

**Prerequisite:**

Understanding developed from previous Architectural Design exercises.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>	<b>VV</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:****Text:**

1. Time Savers Standard for Urban Design
2. Jonathan Barnett, An Introduction to Urban Design
3. Ching, F.D.K., "A Visual Dictionary of Architecture", John Wiley & Sons
4. Norberg-Schulz, C., "Principles of Modern Architecture", Andreas Papadakis
5. University Planning and Architecture: The Search for Perfection by Coulson , Jonathan, Roberts, Paul and Taylor, Isabelle

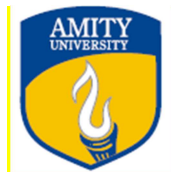
**References:**

1. Edmund Bacon , Design of Cities , Penguin, 1976
2. Gordon Cullen, The Concise Townscape, The Architectural Press, 1978
3. Lawrence Halprin, Cities, Reinhold Publishing Corporation, New York, 1964
4. Gosling and Maitland, Urban Design, St. Martin's Press, 1984
5. Kevin Lynch, Site Planning, MIT Press, Cambridge 1967



# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -V, SEMESTER – IX

Course Title	Dissertation	L	T	P	S	Credits
Course Code	BAR 902	0	2	0	6	5
Course Type	AC					

#### Course Objective:

Dissertation is intended to enlighten on a research topic or thrust area in Architecture and to understand the methodology of the research.

#### Course Contents:

#### Module I: Introduction to the topic

To Understand the methodology to undergo a research topic in the field of architecture.

#### Module II: Selection of the topic

The finalized research topic should be detailed and framework of the research methodology adopted should be outlined in detail in the following sequence.

- A) Topic
- B) Hypothesis
- C) Aim,
- D) Objective
- E) Methodology

#### Module III: Compilation and assimilation of the data, research collected and methodology.

The Dissertation will include presentation of the topic furnishing the above mentioned information along with selection of case studies of the buildings, structures that are directly associated with the research topic [minimum 2], format / questionnaire for case studies, literature review / study [also minimum 1 case study from secondary sources], requirements, current design trends/ philosophies etc and to be reflected in a report form and in the form of presentation.

- F) Chapterization – systematic research on the topic
- G) Case studies- Literature and live
- H) Live research – questionnaires and interviews
- I) Analysis
- J) Conclusion
- K) Suggestions
- L) Bibliography

#### Student Learning Outcomes:

Student will learn the methodology to undergo a deep research in the field of architecture.

#### Pedagogy for Course Delivery:

Lectures, Case studies and Seminars  
2022

**Prerequisite:**

Basic understanding of Architectural research and the methodology adopted in research topics of seminars.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>NILL</b>	<b>100 %</b>	<b>VV</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>					<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>					<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>Report</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>VV</b>
<b>Weightage %</b>	<b>5</b>	<b>15</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:****Text Reading:**

- Design research in architecture: An overview, Murray Fraser, 2011
- Demystifying Architectural Research: Adding value to your practice: Anne Dye and Flora Samuel, 2013

**References:**

- Architectural Research Methods: second addition, Linda Groat, David Wang: willey, 2009





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AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -V, SEMESTER – IX

Course Title	Barrier Free Architecture		L	T	P	S	Credits
Course Code	BAR 903						
Course Type	EC		1	1	0	0	2

### Course Objective:

- The subject looks at barrier free design principles and concepts of universal design
- Barrier free design principles in urban design
- Provides an idea about barrier free construction principles in buildings

### Course Contents:

#### Module I: Introduction to Barrier Free Architecture

Defining the basic concepts of barrier free design, need for barrier free concepts in architecture, concepts of universal design and types of disabilities. Design principles for barrier free architecture and accessibility for all.

#### Module II: Barrier free elements in Interiors and Urban Design

Design elements outside the building like curb ramps, pedestrian crossing, public toilets, and parking, signage, flooring and street furniture. Case examples of Barrier free architecture in India and across the globe. To study the anthropometrics and dimensions of mobility devices, special fixtures for barrier free design. Barrier free construction materials and dimensions for flooring, walls, doors, windows, staircases, elevators, toilets, entrances and corridors.

#### Module III: Case Study, Presentation & Design elements

Barrier free architecture in Public Buildings – dimensions and standards. Case Study of Barrier free elements in Public buildings, Photographic documentation and Presentation. Incorporation of barrier free elements in project being pursued in architectural design.

### Student Learning Outcomes:

Learning the principles of barrier free design. Understanding of the key aspects and systems of barrier free and disabled friendly built space in architecture.

### Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students

### Prerequisite:

Nil  
2022

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

*Text:*

1. History of Furniture – John Morley
2. Furniture Making Techniques
3. Interior Design: Ahmed Kasu
4. The New Office – Francis Duffy
5. Design Secrets: Office Spaces – Elana Frankel
6. Interior Construction & Detailing – David Kent Ballast

*References:*

7. A.J. Metric Handbook, editors, Jan Bilwa and Leslie Fair weather
8. Architectural Graphic standards editor – Boaz Joseph
9. Planning – the Architect’s handbook, E and E.O.
10. Time Savers Standards for Interiors – JD, JP & MZ
11. Building Construction Illustrated – Francis DK Ching& Cassandra Adams.

# AMITY UNIVERSITY

## AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



### YEAR -V, SEMESTER – IX

Course Title	Building Economics		L	T	P	S	Credits
Course Code	BAR 904						
Course Type	EC		1	1	0	0	2

#### Course Objective:

To develop an understanding among the students regarding management of physical and human resources including evaluation techniques pertaining to a business organization in general and specific to construction industry.

#### Course Contents:

#### Module I: Elementary concepts of economics

Introduction to economics- Definitions, Needs & Wants, Nature & Scope of Economics. Division of economics – Micro Economics-Scarcity, Utility - Marginal, Total & Average. Laws of Demand and Supply. Macro Economics-Economic system in India.

#### Module II: Economics in relation to architecture, engineering and other sciences

Meaning and scope of building economics, Issues and challenges associated with building projects. Building Efficiency, Building Life-cycle. Costs and Benefits of Building - Monetary and Non Monetary

#### Module III - Project Financing

Equity, Financing Institutions in Financing Process, Interim Finance and Permanent Financing, Bank Loan - Simple Interest and Compound Interest. Types of Mortgage, Lease Arrangements.

#### Module IV - Economic performance of building

Decision Making using techniques of economic performance to measure tangible and non-tangible issues - Cost-Benefit Analysis, Incremental Analysis and Multi-criteria Analysis.

#### Student Learning Outcomes:

Student will apply the knowledge of calculating expenses and estimates of construction projects along with the skill to develop specifications of materials and construction techniques essential for preparing estimates in the design projects.

#### Pedagogy for Course Delivery:

Lecture based learning along with exercises as tutorials related on the lecture delivery.

#### Prerequisite:

Understanding of Building expenditures and economics construction materials and techniques from previous semesters would help in better understanding.

#### Assessment/ Examination Scheme:

2022

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

**Text:**

- \* Modern Economic theory - K.K. Dewett.
- \* Economic for Engineers – M.L. Gupta

**References:**

- \* . Micro – economic theory – Samuelson.
- \* . Building Economics for Architects – T. Mann.

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -V, SEMESTER – IX

Course Title	Town Planning		L	T	P	S	Credits
Course Code	BAR 905						
Course Type	EC		1	0	0	2	2

### Course Objective:

Introduction to elementary science of town planning principles.  
Introduction to evaluation and development of town planning through history

Course Contents:

#### Module I: Planning Problems

Identification of planning problems of land use distribution and change, communication system, over-crowding, slums, sporadic growth and conurbation

#### Module II: Planning Standards

Formulation of planning standards for land use, density, road and various community facilities at the local and town level

#### Module III: Development Plan

Planning process, concept of MASTER PLAN, its elements, preparation and implementation, Examples of new and old towns.

Analysis of old– Egyptian, Mesopotamian, Greek, Roman, Renaissance, Baroque, and Modern cities - Garden cities, Chandigarh etc.

#### Module IV: Planning Legislation

Review of the development of planning legislation in India; Detailed understanding of the latest planning and housing acts

Student Learning Outcomes:

Students will learn the science of Town Planning and its principal.

Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students

Prerequisite:

**Nil**

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

**Text:**

- Principles and practice of Town and Country Planning, Kebble
- Urban and Regional Planning – A System Approach, J. B. McLoughin
- Town Planning in its social context, G. Cherry

**References:**

- The Development of the Planning Process, J. F. Amos
- Ekistics: An Introduction to the Science of Human Settlements, C. A. Doxiadis
- Town Planning in Ancient India, Binode Dutt
- Urban Pattern, Arthur B. Gallion





# AMITY UNIVERSITY

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## YEAR -V, SEMESTER – IX

Course Title	Low cost Architecture			L	T	P	S	Credits
Course Code	BAR 906							
Course Type	EC			1	0	0	2	2

### Course Objective:

To familiarize the student with cost-effective construction for building economy

To develop an understanding of different issues, types and techniques involved in the design and construction of low cost structures

Course Contents:

### Module I: Introduction

Basic shelter issues in India. National building organization – Recommendation of Housing and Urban Development Corporation

### Module II: Alternative building materials and techniques

Pressed soil blocks, soil cement blocks and other alternative materials – fly ash brick, gypsum byproducts, ferrocement products, bamboo, jute stalk etc

### Module III: Cost effective building construction methods

Different types of walling, roofing, foundation. Laurie Baker's experiments in low cost housing. Experiments conducted by CBRI, Roorkee

Student Learning Outcomes:

Students will learn the methods and techniques of cost effective Architecture

Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students

Prerequisite:

**Nil**

Assessment/ Examination Scheme:

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:**

- Alternative Construction, Contemporary Natural building Methods: Edited by Lynne Elizabeth and Cassandra Adams.
- Low cost housing in developing countries by G. C. Mathur
- Laurie Baker by Gautam Bhatia



**YEAR -V, SEMESTER – X**

<b>Course Title</b>	<b>Architectural Thesis</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>Credits</b>
<b>Course Code</b>	<b>BAR 1001</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>20</b>	<b>15</b>
<b>Course Type</b>	<b>CC</b>					

**Course Objective:**

- To prepare a student to independently handle and present all aspects of an architectural design: from its evolution to final solution in totality.
- To understand the importance of the evolutionary stages of a design process and to attain independent professional approach analysis based design projects achieving high level of workability, efficiency and aesthetics in 3-D form with all the services properly worked out.

**Course Contents:**

**Module I: Project Introduction & Synopsis**

An introduction to the thesis project, submitting synopsis; finalizing topic which should be Architectural/ building Design based. Introduction to the thesis design and get the project approved with the finalization of thesis guides.

**Module II: Literature Review & Analysis**

Study of various literatures in the form of published papers, architectural theories, articles or other piece of literature related to the thesis topic.

Study of various projects (minimum 2 for literature study) of similar nature & magnitude under the heads like, site plan, Plan with functions, Geometry & Structure of the building, Area study, Section Studies, Circulation; Vehicular, Pedestrian & Parking, etc., Service ; Areas under various services i.e. Electric , HVAC, Fire Fighting , Building Automation System, Materials & Fenestration ; Standards of the place to be studied. Pros and cons in the design; Inference & Inputs to be drawn from the case studies; comparison to be done with standards.

**Module III: Primary Case Studies & Analysis**

Study of various case studies (minimum 2 for primary case study) of similar nature & magnitude under the heads like, site plan, Plan with functions, Geometry & Structure of the building, Area study, Section Studies, Circulation; Vehicular, Pedestrian & Parking, etc., Service ; Areas under various services i.e. Electric , HVAC, Fire Fighting , Building Automation System, Materials & Fenestration ; Standards of the place to be studied. Pros and cons in the design; Inference & Inputs to be drawn from the case studies; comparison to be done with standards.

**Module IV: Site study and analysis/ Requirement framing of project**

Relevance of site selection; detailed site analysis focusing on parameters like climate, topography, landscape, neighborhood analysis, building bye laws, environmental sustainability, site services, soil bearing capacity, volumetric analysis, Inferences of site analysis including zoning plan. Along with the framing of requirements, a detailed area program of the proposed design project needs to be done.

**Module V: Concept Development**

Development of concept at various stages and levels with conceptual drawings, model and 3-D sketches. Design to be developed through a series of appraisals and open discussions. Design and planning at site as well as building level to be finalized.

**Module VI: Design Development**

Project design development may be progressively done in 2-3 stages with emphasis on building Plans at various levels; Elevations & Sections of all the buildings, 3D depiction of the design with the tools of views, Perspectives etc.

**Module VII: Final Presentation**

Complete project development and analysis. Drawing sheets & report to be compiled containing all the details of the project. Presentation in terms of 3-D drawings and detailed Model to be submitted. Mode of presentation may be mutually devised by the faculty and student that may be project specific.

**Student Learning Outcomes:**

The students will produce the complete design solution for a projects comprising of all the required drawings, service details and structural techniques with a support of 3-D or static model.

**Pedagogy for Course Delivery:**

- Selection of site, Project, and Synopsis is to be submitted by the student in IX sem.
- Approval of the Project and site is to be finalized and completed by the Panel of guide, senior faculty members, and HOD.
- After Finalization of the project and site, students must move out for three to five days, depending on the location of their site/ case study , by their own and on their own expenses for the detail study of the site and case studies.
- Evaluation and assessment should be done only through Juries and reviews
- Minimum 4 and max. 6 stages of assessment/ juries for Sessional marking is to be conducted.
- All Internal assessment Juries must be done by panel of internal Jurors, comprising Guide, HOD, and senior faculty.
- End Term Viva Voice/ Jury must be conducted by the Panel of External examiners comprising min. one professional Architect from the field and one Professor from the academics.
- Set of three reports to be submitted at the time of End term VV, from which one duly signed hard copy will be returned to the students, one will be the Library copy, and one for the Guide.
- The report is to be submitted in a prescribed format.

**Prerequisite:**

- Min. 10'000/- Sq. meter built-up is essential in a site of 3 to 5 Hectare land Area.
- Project may be Proposed, Ongoing, or hypothetical Gov./ Private Projects, of same magnitude and nature.

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
NILL	100 %	VV

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	50%						50%
<b>Component drop down</b>	<b>A</b>	<b>PR</b>	<b>R1</b>	<b>R2</b>	<b>R3</b>	<b>R4</b>	<b>VV</b>
<b>Weightage %</b>	05	05	10	10	10	10	50

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C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams,.

**Text & References:****Texts:**

1. Complexity and Contradiction in Architecture, by Robert Venturi
2. Intention in Architecture, N. S. Christian
3. Form and Structure, D. Philip and O. Frei
4. Modern Architecture through Case Studies, Peter Blundell Jones
5. Site Planning Standards, J. D. Chaiara
6. Planning – the Architect's handbook, E and E.O
7. Form and Structure, D. Philip and O. Frei
8. Practical Plane and Solid Geometry – H. Joseph and Morris

**References:**

1. Time Saver Standards, J. H. Callender and J. D. Chaiara
2. Neufert's Architects Data, V. Jones, Ed. Gen.
3. Architectural Graphic standards editor – Boaz Joseph
4. Architectural Thesis completed by Students
5. UDPFI Guidelines, MoUD, 1996
6. Time Saver standards for building types, Editor Joseph D.C. and John Callender.

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -V, SEMESTER – X

Course Title	Advance Study	L	T	P	S	Credits
Course Code	BAR 1002	0	2	0	4	4
Course Type	CC					

### Course Objective:

To study in Detail one subject of the thesis topic.

### Course Contents:

#### Module I : Selection of the study area :

Students have to select at one field of detailed study from the following items, for complete design or an approved part thereof, from their thesis project and should be covered in full detail –

1. Structural calculations and design.
2. Detailed estimate and specification.
3. Working drawing and construction details.
4. Proposal for Mechanical services to cover 'Air-conditioning & Mechanical conveying system'.
5. Proposal for Electrical Services and Illumination.
6. Proposal for Water supply and waste disposal services.
7. Proposal for Acoustical design & specification.
8. Proposal for Interior design – including furniture, fittings and finishes.
9. Landscape design proposals in detail.

#### Module II: Introduction, Requirements and Case study :

Detailed work out through case studies and requirements of the field of study area to formulate the working guidelines.

#### Module III: Designing and detailing :

Detailed drawings including plans, sections, elevations, details, working technology, materials and planning aspects of the selected area of study.

#### Module IV: Final Presentation

Complete project development and analysis. Drawing sheets & report to be compiled containing all the details of the project. Mode of presentation may be mutually devised by the faculty and student that may be project specific.

**Student Learning Outcomes:**

Student will learn the methodology to undergo a deep research in the field of architecture.

**Pedagogy for Course Delivery:**

Lectures, Case studies and Seminars

- Evaluation and assessment should be done only through Juries and reviews
- Minimum 4 stages of assessment/ juries for Sessional marking is to be conducted.
- All Internal assessment Juries must be done by panel of internal Jurors, comprising thesis Guide, HOD, and senior faculty.
- End Term Viva Voice/ Jury must be conducted along with the thesis jury , by the Panel of External examiners.

**Prerequisite:**

Basic knowledge of the subject.

**Assessment/ Examination Scheme:**

Theory %	Lab/ practical/studio %	End Term Examination
NILL	100 %	VV

**Lab / Practical / Studio Assessment :**

	Sessional work					End Term
Weightage %	50%					50%
Component drop down	A	Report	R1	R2	R3	VV
Weightage %	5	15	10	10	10	50

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**Text & References:****Text Reading:**

- Design research in architecture: An overview, Murray Fraser, 2011
- Demystifying Architectural Research: Adding value to your practice: Anne Dye and Flora Samuel, 2013

**References:**

- Architectural Research Methods: second addition, Linda Groat, David Wang: willey, 2009

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -V, SEMESTER – X

Course Title	Architecture Conservation	L	T	P	S	Credits
Course Code	BAR 1003	1	1	0	0	2
Course Type	EC					

### Course Objective:

To appraise the students about the architectural conservation and sensitize them the values of heritage and traditional building materials needed in restorations.

### Course Contents:

#### Module I: : Introduction

Introduction to historic structures; Values and Ethics in Conservation, the various principles and scope.

#### Module II: Terminologies, Charters and Acts

Terminologies such as Authenticity, Integrity, Adaptive Reuse, Preservation, Rehabilitation, Prevention, Conservation, Restoration, Reproduction, Reconstruction defined in the various charters such as the Burra Charter, Nara Document, Venice Charter, Florence Charter, INTACH Charter

Legal Framework in Indian context :

AMASR Act, State Acts, Antiquities and Art Treasures Act, Role of Archeological Survey of India, National Monument Authority, etc in protection of heritage in India.

#### Module II: Traditional Materials and decay patterns

Introduction to building materials: location, formation, physical and chemical properties and sourcing of building materials; Diagnosis and assessment of defects in building materials. Natural stones, Granite, Brick, Concrete, Various types of wood and wooden construction. Study of various types of mortars and plastering, steel and plastic, glass. Lime and stucco, paints and painting.

#### Module IV: Conservation Methods and Practices

Typology of historic buildings pertaining to regional context; Study of structural behavior of historic building as a whole; Identification and mapping of structural problems; Remedial measures – different techniques pertaining to each problems and case studies.

#### Module V: Professional Practice

Understanding historic buildings/site; Demarcation of historic sites and its relationship to surroundings; Understanding the building and composition of building materials; Identification of function, use and condition of the buildings/site; Statement of Significance of historic buildings/site; Condition assessment; Maintenance, Management and Conservation plan.

### Student Learning Outcomes:

Students will interpret the knowledge of architectural conservation specifically catering to the regional heritage & awareness of holistic nature of restoration and conservation practices.



**Pedagogy for Course Delivery:**

Lectures, Case studies and Seminars

**Prerequisite:**

Nil

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

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**Text & References:****Text:**

1. An Introduction to Conservation by B. M. Feildan
2. Conservation Handbook- INTACH Publications
3. Why Lime? By Sangeeta Bais- INTACH Publications
4. Stone Glossary by ICOMOS Publications

**References:**

1. The Conservation of Historic Buildings by B. M. Feildan
2. Manual on Systems of Inventorying Immovable Cultural Property, UNESCO, 1984

**Additional Reading:**

1. Charters and Guidelines by UNESCO

# AMITY UNIVERSITY

AMITY SCHOOL OF ARCHITECTURE AND PLANNING, AUMP



## YEAR -V, SEMESTER – X

Course Title	Alternative source of energy and built environment			L	T	P	S	Credits
Course Code	BAR 1004							
Course Type	EC			1	1	0	0	2

### Course Objective:

- Understanding role of alternative sources of energy in built environment
- Understanding the methodology to be followed and application while using other sources of energy in a building.

### Course Contents:

#### Module I: Introduction to alternative sources of energy:

Understanding the other sources of energy – solar energy, wind energy, tidal energy etc. Scope and factors influencing built environment. Site and climatic requirements, site constraints, construction and technical requirements and limitations.

#### Module II: Understanding Application of Solar energy in architecture

Ways of adopting energy in architecture :- Active and Passive. Carefully study the examples of both.

#### Module III: Live study & Application

To understand the thorough application of renewable and alternative energy , students should visit and submit a detailed report on any one building using solar energy.

### Student Learning Outcomes:

To familiarize with the technologies using renewable sources of energy in developing and harnessing energy for built environment .

### Pedagogy for Course Delivery:

The course is delivered through lectures, field trips and presentation by the students

### Prerequisite:

Nil

**Assessment/ Examination Scheme:**

<b>Theory %</b>	<b>Lab/ practical/studio %</b>	<b>End Term Examination</b>
<b>100 %</b>	<b>NILL</b>	<b>Theory</b>

**Lab / Practical / Studio Assessment :**

	<b>Sessional work</b>						<b>End Term</b>
<b>Weightage %</b>	<b>50%</b>						<b>50%</b>
<b>Component drop down</b>	<b>A</b>	<b>S</b>	<b>AS1</b>	<b>AS2</b>	<b>CT1</b>	<b>CT2</b>	<b>Theory</b>
<b>Weightage %</b>	<b>05</b>	<b>05</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>50</b>

A : Attendance, S : Seminar, PR : Presentation, AS : Assignment , MSE: Mid semester Exam, VV: Viva Voice, C: Case discussion, P: Project, CT: class test, SW : Studio Work, EE: End sem. Exams.

**Text & References:**

17. CLIMATE RESPONSIVE ARCHITECTURE:A Design Handbook for Energy Efficient Buildings.Arvind Krishan (Author), Nick Baker (Author), Simos Yannas (Author),Steve Szokolay (Author)
18. A Golden Thread: 2500 Years of Solar Architecture and Technology by Ken Butti (Author), John Perlin (Author)





## Course structure: Interior Design Studio I

– BID101

**Course Title:** Interior Design Studio I (Basic Design Principles)

**Credit Units:** 05

**Course Level:** UG Level

**Course Code:** BID101

### Course Objectives:

- The objective of the course is to provide a clear understanding about the basic design elements and principles to be followed while designing any space using different standards, materials and technologies.
- It enables the students to understand the visual composition in an interior space with color schemes, textures, light, shadow etc. Introduction to human dimensions, functions, space – activities, space standards, relationships of a simple single living unit to understand the minimum space requirement by individual to perform various activities.

**Pre-requisites:** The students must possess fair understanding of the minimum space requirement by individual to perform various activities.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I Principles of visual composition</b>	
<b>Descriptors/Topics</b> Symmetry, Asymmetry, Repetition, Rhythm, Background, Foreground, Sense of Direction, Harmony, Balance and Proportion.	20%
<b>Module II Elements of visual composition</b>	
<b>Descriptors/Topics</b> Dots, Lines, Planes, Patterns, Shapes, Colors, Textures, Levels, Light, and Fenestration, Exploring color schemes, Textures and Texture schemes.	30%
<b>Module III Anthropometrics Study</b>	
<b>Descriptors/Topics</b> Anthropometrics Study of human body and activities.	20%
<b>Module IV: Design Exercise</b>	
<b>Descriptors/Topics</b> Design of Anthropometrics Cell with minimum space requirements of single unit for a single person and study the interior spaces by making 3-D views (axonometric and isometric). This exercise will include areas like living area, sleeping area, washroom, cooking area with furniture layout in 2-D drawings including elevations covering an area of 25-50 sqm. using various principles of design, textures and color schemes.	30%

**Student Learning Outcomes:**

- Understand the concepts of visual composition
- Analyze various Symmetry, Asymmetry, Repetition, Rhythm, Background, Foreground, Sense of Direction, Harmony, Balance and Proportion.
- Exploring color schemes, Textures and Texture schemes.
- Evaluate the Anthropometrics Study of human body and activities.
- Enable students to Design of Anthropometrics Cell with minimum space requirements

**Pedagogy for Course Delivery:** The course will use a mix of drawings, sketching and hands-on exercises. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ExaminationScheme:**

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] Drawing a Creative Process, Francis D.K. Ching
- [2] Design Drawing + CD, Francis D.K. Ching
- [3] Architecture Graphics, Francis D.K. Ching 4th Edition
- [4] Interior design & space planning, Dechiara Pabero Zelnik
- [5] Interior design illustrated, Francis D.K. Ching
- [6] Graphic Interiors
- [7] (Space Designed by Graphic Artists), Corina Dean
- [8] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [9] House Book (The Complete Guide to Home Design), Terence Conran
- [10] Illustration + Perspectives (In Pantone Colors), Eiji Mitooka

**References:**

- Architectural Graphic standards editor, Boaz Joseph
- Neufert's Architect's data
- Time Saver standards for building types, Joseph D.C. and John Callender.
- Kitchen & Bath, Montse Zapata
- Bed room, Lestey Taylor
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall



## Course structure: Materials (Furnishing and Finishes)

– BID102

**Course Title: Materials (Furnishing and Finishes)**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID102**

### Course Objectives:

- The objective of this course is to make the students understand of all the available materials, which are used in designing the various different interior spaces.
- It gives a fair knowledge of different furnishings and finishes used for all the interior surfaces of the space.

**Pre-requisites:** The students must possess fair understanding of different furnishings and finishes.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I</b>	
<b>Module I: Market survey</b>	
<b>Descriptors/Topics</b> Execute a market survey of different materials in terms of furnishes and finishes.	20%
<b>Module II</b>	
<b>Case study</b>	
<b>Descriptors/Topics</b> Formulate a case study of an existing building to study its interiors along with furnishes and finishes used in it.	30%
<b>Module III</b>	
<b>Design exercise</b>	
<b>Descriptors/Topics</b> Using the materials available in the design exercise.	50%

### Student Learning Outcomes:

- Understand the different furnishings and finishes
- Exploring market survey of different materials
- Understanding of various finishes used for all the interior surfaces of the space.

**Pedagogy for Course Delivery:** The course will use a mix of case study, drawings, sketching and hands-on exercises. Participants are encouraged to engage in active interaction through classroom participation

### Assessment/ Examination Scheme:

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage (%)	10	15	5	70

### **Text Reading:**

- [1] Interior design illustrated, Francis D.K. Ching
- [2] Graphic Interiors
- [3] (Space Designed by Graphic Artists), Corina Dean
- [4] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [5] House Book (The Complete Guide to Home Design), Terence Conran
- [6] Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- [7] Elements of Architecture - Meiss Pieree Von
- [8] Architecture: Form, Space and Order - Francis D.K. Ching

### **References:**

- A.J. Metric Handbook, editors, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards editor - Boaz Joseph
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall





## Course structure: Basic Design & Visual Arts-I

– BID103

**Course Title:** Basic Design & Visual Arts-I

**Credit Units:** 03

**Course Level:** UG Level

**Course Code:** BID103

### Course Objectives:

- the students would encourage to develop visual thinking and perception of the fundamentals of all the arts, design and craft work.
- It provides introduction to art and its appreciation and philosophy. Familiarizing with the principles and theories of graphic composition used in interior design.

**Pre-requisites:** The students must possess fair understanding of different furnishings and finishes.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Free hand skill</b>	25%
<b>Descriptors/Topics</b> Exercise to develop free hand skill – i.e. drawing lines, joining points, curves etc.	
<b>Module II Object sketching</b>	25%
<b>Descriptors/Topics</b> Object sketching – Still and live	
<b>Module III Shading and Rendering</b>	25%
<b>Descriptors/Topics</b> Shading and rendering with different materials	
<b>Module IV Coloring</b>	25%
<b>Descriptors/Topics</b> Coloring with different mediums.	

### Student Learning Outcomes:

- designing of interiors spaces with graphic tools i.e. sketching, shading, coloring etc.
- Exploring graphic composition used in interior design

**Pedagogy for Course Delivery:** The course will use a mix of drawings, sketching and hands-on exercises. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Commercial Interior Perspectives, Graphic – Sha (Editor)
- [4] Design with Wood, Carol Soucek King
- [5] Drywall (Pro Tips for Hanging & Finishing), John D. Wagner
- [6] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean
- [7] Interior design illustrated, Francis D.K. Ching
- [8] Graphic Interiors
- [9] (Space Designed by Graphic Artists), Corina Dean
- [10] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [11] House Book (The Complete Guide to Home Design), Terence Conran
- [12] Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- [13] Elements of Architecture, Meiss Pieree Von
- [14] Architecture: Form, Space and Order, Francis D.K. Ching

**References:**

- A.J. Metric Handbook, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards, Boaz Joseph
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching



## Course structure: Drawing Techniques - I

– BID104

Course Title: Drawing Techniques - I

Credit Units: 03

Course Level: UG Level

Course Code: BID104

### Course Objectives:

- The objective of the course is to get the students familiarized with the drawing tools and accessories used in drafting and lettering techniques to produce any geometrical composition and form.
- This subject also provides a clear understanding about the scale measurement; plane geometry, solid geometry and projections used as drawing technique.

**Pre-requisites:** The students must possess fair understanding of drafting and lettering techniques.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Basic technical drawing</b>	
<b>Descriptors/Topics</b> Introduction and setting to the drawing equipment, Introduction to metric scales, Concept of line, its types, quality, grade, divisions and angles, Concept of polygons, circles, geometrical curves, helix etc.	20%
<b>Module II Concept of Dimensioning</b>	
<b>Descriptors/Topics</b> Concept of Dimensioning, Different -Types of Dimensioning, Styles of Dimensioning	20%
<b>Module III Lettering</b>	
<b>Descriptors/Topics</b> Free hand and mechanical lettering	20%
<b>Module IV Orthographic Projections (Two – Dimensional) and Dimensioning</b>	
<b>Descriptors/Topics</b> Definition, meaning and concept, Planes of projections with dimensions, Projection of regular rectilinear and circular solids (prisms, pyramids, cones, cylinders, spheres etc.) in different positions, Sections of regular rectilinear and circular solids in varying conditions of sectional plane, Development of surfaces	20%
<b>Module V Three – Dimensional Views</b>	
<b>Descriptors/Topics</b> Isometric, Axonometric and Oblique view.	20%

**Student Learning Outcomes:**

- Students will be able to produce any geometrical composition and form
- Understanding about the scale measurement; plane geometry, solid geometry and projections

**Pedagogy for Course Delivery:** The course will use a mix of drawings, sketching and hands-on exercises. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Interior design illustrated, Francis D.K. Ching
- [4] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [5] House Book (The Complete Guide to Home Design), Terence Conran
- [6] Architecture: Form, Space and Order, Francis D.K. Ching

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching



## Course structure: Architecture and Interior Design

– BID105

**Course Title: Architecture and Interior Design**

**Credit Units: 02**

**Course Level: UG Level**

**Course Code: BID105**

### Course Objectives:

- The course is intended to apprise the students about the role and complexity in interior design with in the larger context of the built environments with special reference to their interiors.
- The primary aim is to create general awareness about the general and emerging trends in interior design.

**Pre-requisites:** The students must possess fair understanding of Architecture and Interior Design.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Interior Environment</b>	
<b>Descriptors/Topics</b> Functional and qualitative aspects of interior environment, Integrated relationship of Architecture spaces and Interior spaces.	30%
<b>Module II Volumetric spaces</b>	
<b>Descriptors/Topics</b> A continue of Architectural volumetric spaces – external and internal, Elements and principles of design related to aesthetics and functional aspects of built forms.	40%
<b>Module III Trends</b>	
<b>Descriptors/Topics</b> Changing modern trends of interior design, the emerging role of professional interior designers, Training of interior designers related to professional practice	30%

### Student Learning Outcomes:

- Students will be able to understand role and complexity in interior design.
- Understanding about the emerging trends in interior design.

**Pedagogy for Course Delivery:** The course will use a mix of drawings, sketching and hands-on exercises. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [2] House Book (The Complete Guide to Home Design), Terence Conran
- [3] Architecture: Form, Space and Order, Francis D.K. Ching

**References:**

- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching



## Course structure: History of Interior Design - I

– BID106

**Course Title:** History of Interior Design - I

**Credit Units:** 02

**Course Level:** UG Level

**Course Code:** BID106

### Course Objectives:

- This course focuses on the developmental aspects of Interior designing over the time period in different periods of history.

**Pre-requisites:** The students must possess fair understanding of Interior designing over the time period.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Trends of development</b>	30%
<b>Descriptors/Topics</b> Trends of development in interior design along the course of Architectural forms.	
<b>Module II Mughal period</b>	40%
<b>Descriptors/Topics</b> Developments in Mughal period with respect to buildings and Interiors.	
<b>Module III Industrial Revolution</b>	30%
<b>Descriptors/Topics</b> Changes in building forms and Interior designing at the time of Industrial Revolution in major selected countries of world as examples to learn.	

### Student Learning Outcomes:

- Students will be able to understand the developmental aspects interior design over the time period.
- Understanding about the traditional trends in interior design.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and literature study. Participants are encouraged to engage in active interaction through classroom participation

### Assessment/ Examination Scheme:

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<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] The History of Arch. in India, Chictophes Tadgell
- [2] Interior design & space planning, Dechiara Pabero Zelnik
- [3] Interior design illustrated, Francis D.K. Ching

**References:**

- Islamic Architecture in Interior, Satish Grover
- The Best Interior India, Anuradha Mahindra
- Indian Interior, Angelika Taschen





## Course structure: Model Making Workshop

– BID107

**Course Title: Model Making Workshop**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID107**

### Course Objectives:

- The objective of the course is to introduce the tools and techniques used for making models out of paper, boards, wood, bamboo, thermo coal, fabrics, clothes, glass, plastic sheets, wire, P.O.P., Clay etc. This course
- enables students for the construction of 3-Dimensional models with different materials.

**Pre-requisites:** Knowledge gained till all previous semesters.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Concept of Model Making</b>	
<b>Descriptors/Topics</b> Making of models with different materials and colour them also.	30%
<b>Module II: Measurement drawing</b>	
<b>Descriptors/Topics</b> Measurement drawing of a piece of a furniture-plan, elevation and detail drawings on proper scale. Design of a simple object having some moving components – folding stool. History of furniture from early days to industrial revolution.	30%
<b>Module III: Model materials</b>	
<b>Descriptors/Topics</b> Model should be made of glass, plastic, paper, wood & cardboard etc. The models should be made in model making workshop.	40%

### Student Learning Outcomes:

- The course provides an understanding of the role of revitalization of Art/Craft form in Interior Spaces.

### Pedagogy for Course Delivery:

The formal lecture material and also provide the student with case study, presentations & hands on skills. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [2] House Book (The Complete Guide to Home Design), Terence Conran
- [3] Architecture: Form, Space and Order, Francis D.K. Ching
- [4] Elements of Architecture, Meiss Pieree Von
- [5] Architecture: Form, Space and Order, Francis D.K. Ching

**References:**

- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von



## Course structure: Interior Design Studio – II

– BID201

**Course Title: Interior Design Studio - II**

**Credit Units: 05**

**Course Level: UG Level Course**

**Course Code: BID201**

### Objectives:

- The objective of the course is to provide a clear understanding about the design procedures and techniques of interior design of spaces with different activities and uses, using different standards, materials and technologies.
- It enables the students to understand the visual design in an interior space with color schemes, textures, light, shadow etc.
- The exercise to be executed in this course enable the students to design the space interiors for a two storey building with the required services, infrastructure, furniture layout, circulation, open-built and exterior-interior relationship in and around the plot boundaries.

**Pre-requisites:** The students must possess fair understanding of design procedures and techniques of interior design.

### Course Contents/Syllabus:

	<b>Weightage (%)</b>
<b>Module I: Design problem</b>	
<b>Descriptors/Topics</b> Introduction to design problem with the methodology to proceed with the concept, Case studies and data collection through primary and secondary sources, Formulation of concept with client's requirements.	<b>30%</b>
<b>Module II Design aspects</b>	
<b>Descriptors/Topics</b> Design the interior keeping in view – the basic structural requirements, finishes, furniture layout, basic services (teaching parallel in BID 1207, Building Services and Fixtures -water supply and sanitation)	<b>30%</b>
<b>Module III Design Exercise</b>	
<b>Descriptors/Topics</b> Design the interiors for a space with a floor area of appx. 300sqm. – 400 sqm in a two storey structure with open courtyards in or around the built structure for 12 - 15 occupants (living or floating) on a plot size of minimum 500sqm. Design should be presented in 3D drawings (perspectives, axonometric, isometric views) rendered with textures, colors, patterns etc.	<b>40%</b>

## Student Learning Outcomes:

- Students will be able to understand about the design procedures and techniques of interior design of spaces with different activities
- It enables the students to understand the visual design in an interior space with color schemes, textures, light, shadow etc.

**Pedagogy for Course Delivery:** The course will use a mix of drawings, case study and sketching & hands on exercise. Participants are encouraged to engage in active interaction through classroom participation

## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Commercial Interior Perspectives, Graphic – Sha (Editor)
- [4] Design with Wood, Carol Soucek King
- [5] Drywall (Pro Tips for Hanging & Finishing), John D. Wagner
- [6] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean
- [7] Interior design illustrated, Francis D.K. Ching
- [8] Graphic Interiors
- [9] (Space Designed by Graphic Artists), Corina Dean
- [10] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [11] House Book (The Complete Guide to Home Design), Terence Conran
- [12] Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- [13] Elements of Architecture, Meiss Pieree Von
- [14] Architecture: Form, Space and Order, Francis D.K. Ching

## References:

- A.J. Metric Handbook, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards, Boaz Joseph
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching



## Course structure: Materials and Construction Techniques - I – BID202

Course Title: Materials and Construction Techniques - I Credit Units: 03

Course Level: UG Level Course Code: BID202

### Course Objectives:

- To familiarize the students with construction properties and cases of traditional building materials used in construction.
- To understand the use of these traditional building materials in simple building works.

**Pre-requisites:** The students must possess fair understanding of traditional building materials used in construction.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Materials</b>	
<b>Descriptors/Topics</b> Mud and Clay Products: Mud including stabilized earth, Burnt Bricks, Brick Tiles, Brick Ballast and Surkhi, Stone, Lime, Sand, Surkhi, Cement, Mortar, Concrete: Classification, Availability, Preparation, Characteristics, Manufacturing and Uses.	25%
<b>Module II Materials</b>	
<b>Descriptors/Topics</b> Brick Work: Brick work with different materials i.e. mud, clay, glass, concrete, wood, timber, flyash Water Proof Materials: Asphalt, Bitumen, and Synthetic	25%
<b>Module III Construction</b>	
<b>Descriptors/Topics</b> Element of building: Terminology, nomenclature of various parts of building from foundation to roof. Brick Works: Brick Terminology, Simple bonds in Brick work. Detail at junctions. Arches, Brick, Stone, elementary principles, Definition and centering, Corbelling Coping string Courses, Decorative Brick Work, Brick Jalis. Special Bond, Garden bond etc.	25%
<b>Module IV Construction</b>	
<b>Descriptors/Topics</b> Stone work: Elementary Stone Masonry, Types of Joints, Random, Course and Ashlar Stone Work. Foundation: Need, Design criteria, Foundation for load bearing walls of various thicknesses.	25%

## Student Learning Outcomes:

- Students will be able to understand about the traditional building materials used in construction.

**Pedagogy for Course Delivery:** The course will use a mix of drawings, case study and sketching & hands on exercise. Participants are encouraged to engage in active interaction through classroom participation

## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Interior design illustrated, Francis D.K. Ching
- [3] House Book (The Complete Guide to Home Design), Terence Conran
- [4] Masonry (Concrete, Brick, Stone), Christine Beall
- [5] Metric Handbook (Planning & Design Data) 2nd Ed. Edited By, David Adler

## References:

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching
- The Construction of Building Vol- 1 to 5, R. Barry
- Building Construction, N.L. Arora & B.R. Gupta
- Interior Detail – 1 (Residence), Jeong, Kwang Young
- Interior Spaces Vol – 6 (A Pictorial Review), Image Publishing Group



## Course structure: Basic Design & Visual Arts II

– BID203

**Course Title:** Basic Design & Visual Arts II

**Credit Units:** 03

**Course Level:** UG Level

**Course Code:** BID203

### Course Objectives:

- The objectives are to make the students aware of all the possible graphic skills used in interior design and provide a wider knowledge to the students about the various levels of graphic drawings. Familiarize with the principles and theories of graphics.

**Pre-requisites:** The students must possess fair understanding of drafting and sketching.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Graphical representation</b>	50%
<b>Descriptors/Topics</b> Graphical representation of furniture, human figures in D2 & D3, Rendering techniques for textures, materials, finishes etc.	
<b>Module II 3-D graphics and coloring</b>	50%
<b>Descriptors/Topics</b> Models, 3-D forms: free standing paper models representing motives, shapes	

### Student Learning Outcomes:

- Students will be able to understand about principles and theories of graphics.

**Pedagogy for Course Delivery:** The course will use a mix of drawings, sketching & hands on exercise. Participants are encouraged to engage in active interaction through classroom participation

### Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Interior design illustrated, Francis D.K. Ching
- [4] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [5] House Book (The Complete Guide to Home Design), Terence Conran
- [6] Architecture: Form, Space and Order Francis D.K. Ching

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching





## Course structure: Drawing Techniques II

– BID204

**Course Title: Drawing Techniques II**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID204**

### Course Objectives:

- The objective of this course is to provide a clear understanding about the drawing techniques and rendering techniques, which would help them to make design more represent- able and readable on paper in two dimensional and three-dimensional space.
- This subject also helps the students to provide various color schemes, textures and patterns to the surfaces incorporating in interior design.

**Pre-requisites:** The students must possess fair understanding of drafting and sketching.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Perspective</b>	
<b>Descriptors/Topics</b> Perspective view – one point and two-point, Perspective of Interiors	30%
<b>Module II Shades and shadows</b>	
<b>Descriptors/Topics</b> Shades and shadows / Coloring of Perspective with Rendering, Different material and mediums of Rendering	40%
<b>Module III Free hand perspectives</b>	
<b>Descriptors/Topics</b> Free hand perspectives.	30%

### Student Learning Outcomes:

- Students will be able to understand about Different material and mediums of Rendering.

**Pedagogy for Course Delivery:** The course will use a mix of drawings, sketching & hands on exercise. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Interior design illustrated, Francis D.K.Ching
- [4] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [5] House Book (The Complete Guide to Home Design), Terence Conran
- [6] Architecture: Form, Space and Order, Francis D.K. Ching

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von



**Course structure: Computer Applications - I**

**– BID205**

**Course Title: Computer Applications - I**

**Credit Units: 02**

**Course Level: UG Level**

**Course Code: BID205**

**Course Objectives:**

- The objective of the course is to provide knowledge about the various computer and software used in interior designing.

**Pre-requisites:** The students must possess fair understanding of computer fundamentals.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Introduction</b>	<b>40%</b>
<b>Descriptors/Topics</b> Two-dimensional drafting work to be handled in detail on Auto Cad. Complete Drafting, Editing and modification work to be done and presentations be made.	
<b>Module I: Shapes and Figures</b>	<b>30%</b>
<b>Descriptors/Topics</b> Introduction to Auto CAD for making simple figures and shapes, Introduction to Coral Draw and Photoshop software and their application.	
<b>Module I: Use of photo editing Software</b>	<b>30%</b>
<b>Descriptors/Topics</b> Photo editing as well as preparation of 2-D presentations on Photoshop/ Corel Draw.	

**Student Learning Outcomes:**

- Students will be able to use designing and graphics software used in interior designing. .

**Pedagogy for Course Delivery:** The course will use a mix of computer drawings and tutorial. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
<b>Weightage (%)</b>	<b>10</b>	<b>15</b>	<b>5</b>	<b>70</b>

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Computers in Interior Design, A.K. Sinha

**References:**

- Architecture and computer



## Course structure: History of Interior Design – II

– BID206

**Course Title:** History of Interior Design – II

**Credit Units:** 02

**Course Level:** UG Level

**Course Code:** BID206

### Course Objectives:

- The objective of the course is to introduce the students with the changes occurred in the past with the time. Familiarize with the different culture, society and their style of living, which effects the internal part of their buildings over different periods.

**Pre-requisites:** The students must possess fair understanding of culture, society and their style of living.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Early 19th century</b>	
<b>Descriptors/Topics</b> Industrial Revolution, Period – Early 19th century	30%
<b>Module II: Mid 19th century</b>	
<b>Descriptors/Topics</b> Victorian taste with change, Period – Mid 19th Century	30%
<b>Module III: Late 19th century</b>	
<b>Descriptors/Topics</b> The search for a new style, Period – Late 19th Century Reference to European and American style	40%

### Student Learning Outcomes:

- Familiarize with the different culture, society and their style of living, which effects the internal part of their buildings over different periods.

**Pedagogy for Course Delivery:** The course will use a mix of presentation, sketching and case study. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] The History of Arch. in India, Chictophes Tadgell
- [2] Interior design & space planning, Dechiara Pabero Zelnik
- [3] Interior design illustrated, Francis D.K. Ching

**References:**

- Islamic Architecture in Interior, Satish Grover
- The Best Interior India, Anuradha Mahindra
- Indian Interior, Angelika Taschen



## Course structure: Workshop – I (Serigraphy & Color)

– BID207

**Course Title:** Workshop – I (Serigraphy & Color)

**Credit Units:** 02

**Course Level:** UG Level

**Course Code:** BID207

### Course Objectives:

- The objective of the course is to provide a clear understanding about the Color theory / color psychology in interior design.
- This course will cover the fundamentals of interior design starting with basic colors, what basic colors are (from primary, secondary and tertiary colors), which would help them to understand how different colors affect different spaces, some winning color combinations, how to build your color palette from any item, and how to choose the perfect shade of paint for your space.
- This subject also helps the students to provide various colour schemes, textures and patterns to the surfaces incorporating in interior design.

**Pre-requisites:** The students must possess fair understanding of basic colors palette, shading and textures and patterns.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Color theory / color psychology</b>	
<b>Descriptors/Topics</b> understanding about the Color theory / color psychology in interior design. fundamentals of interior design starting with basic colors.	40%
<b>Module II: Color Palette</b>	
<b>Descriptors/Topics</b> Making of color Palette, color combinations for particular theme in interior space.	40%
<b>Module III: Serigraphy</b>	
<b>Descriptors/Topics</b> Serigraphy in Interior Spaces & Furniture, Drawings solids, voids	20%

### Student Learning Outcomes:

- Student will learn
- How to use Serigraphy in Interior Spaces & Furniture.



- How to use the color wheel in a very practical and useful way.
- How to use color to create different moods in a room.
- How to use color to make your rooms appear larger or smaller than they actually are.
- About beautiful color scheme selections for every room in your home based on various factors.

**Pedagogy for Course Delivery:** The course will use a mix of hands on workshop, sketching and case study & market study. Participants are encouraged to engage in active interaction through classroom participation Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] The History of Arch. in India, Chictophes Tadgell
- [2] Interior design & space planning, Dechiara Pabero Zelnik [3]  
Interior design illustrated, Francis D.K. Ching

**References:**

- Islamic Architecture in Interior, Satish Grover
- The Best Interior India, Anuradha Mahindra
- Indian Interior, Angelika Tasche





**Course structure: Interior Design Studio- III - BID301**

**Course Title: Interior Design Studio- III Credit Units: 06**

**Course Level: UG Level Course Code: BID301**

**Course Objectives:**

- The objective of the course is to provide a clear understanding about the design elements and principles to be followed while designing an institutional building using different standards, materials and technologies.
- It enables the students to understand the requirement of designing any interiors.

**Pre-requisites:** The students must possess fair understanding of basic design principles, design procedures and techniques of interior design..

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Interior Design</b>	
<b>Descriptors/Topics</b> Interior Design for Play school/ Kindergarten/Nursery school (institutional/ training & development building) for a maximum number of students up to 150. for a built-up space up to 500 sqm with all the required facilities in terms of infrastructure and services.	<b>25%</b>
<b>Module II: Interior in institutional building</b>	
<b>Descriptors/Topics</b> Space organization in interiors, Surface treatments in interiors e.g. walls, floors, ceilings etc. Interior details in terms of lighting, services, interior landscape etc., Different types of materials that are available and their uses in interiors.	<b>25%</b>
<b>Module III: Interior in institutional building</b>	
<b>Descriptors/Topics</b> Layout and Constructional details of furniture units, Application of color, texture, pattern and their psychological effects in interiors, drawing of interiors in 2D and 3D views to understand the space design.	<b>25%</b>
<b>Module IV: Interior Model</b>	
<b>Descriptors/Topics</b> Interior Model of the space with all furniture, interior details in place and interior finishes with different colors, Textures.	<b>25%</b>



### Student Learning Outcomes:

- The design elements and principles to be followed while designing an institutional building using different standards, materials and technologies.

### Pedagogy for Course Delivery:

- The course will use a mix of drawings, case study and sketching & hands on exercise. Participants are encouraged to engage in active interaction through classroom participation.

### Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

### Text Reading:

- Drawing a Creative Process, Francis D.K. Ching
- Design Drawing + CD, Francis D.K. Ching
- Architecture Graphics, Francis D.K. Ching 4th Edition
- Interior design & space planning, Dechiara Pabero Zelnik
- Interior design illustrated, Francis D.K. Ching
- Graphic Interiors
- (Space Designed by Graphic Artists), Corina Dean
- Home Plumbing (The David & Charles Manual of), Ernest Hall
- House Book (The Complete Guide to Home Design), Terence Conran
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka

### References:

- Architectural Graphic standards, Boaz Joseph
- Neufert's Architect's data
- Time Saver standards for building types, Joseph D.C. and John Callender.
- Kitchen & Bath, Montse Zapata
- Bed room, Lestey Taylor
- The Curtain Book, Mitchll Beazly
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall



## Course structure: Materials and Construction Techniques - II – BID302

Course Title: Materials and Construction Techniques - II Credit Units: 03

Course Level: UG Level Course Code: BID302

### Course Objectives:

- To introduce and familiarize the students with different building materials and construction techniques.
- The understanding for the system to be adopted for the construction of different types buildings.

**Pre-requisites:** The students must possess fair understanding of traditional building materials used in construction.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Materials</b>	
<b>Descriptors/Topics</b> Wood, Timber, Bamboo, All types of wooden products.	20%
<b>Module II: Construction</b>	
<b>Descriptors/Topics</b> Timber or Wooden - Doors/Windows/ Floors/staircases: Classification, Characteristics, Defects and Preservation. Introduction to Fully paneled single and double doors of various types and sizes	20%
<b>Module III: Construction</b>	
<b>Descriptors/Topics</b> Introduction to fully glazed windows and ventilator details of joints etc. Fixed glass and timber louvered windows, Elementary carpentry, common joints, details of ledged and Batten Doors.	20%
<b>Module IV: Space Partitions</b>	
<b>Descriptors/Topics</b> Partitions of different types and materials, Fixing of partitions with different details	20%
<b>Module V: Storage cabinets</b>	
<b>Descriptors/Topics</b> Different Types, materials, different construction details with fixing details.	20%



**Student Learning Outcomes:**

- Familiarize the students with different building materials and construction techniques.

**Pedagogy for Course Delivery:**

- The course will use a mix of drawings, case study and sketching & hands on exercise. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Interior design illustrated, Francis D.K. Ching
- [3] House Book (The Complete Guide to Home Design), Terence Conran
- [4] Masonry (Concrete, Brick, Stone), Christine Beall
- [5] Metric Handbook (Planning & Design Data) 2nd Ed. Edited By, David Adler

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching
- The Construction of Building Vol- 1 to 5, R. Barry
- Building Construction, N.L. Arora & B.R. Gupta
- Interior Detail – 1 (Residence), Jeong, Kwang Young
- Interior Spaces Vol – 6 (A Pictorial Review), Image Publishing Group



## Course structure: Building Interior Services – I (Plumbing & Sanitation)

– BID303

Course Title: Building Interior Services – I  
(Plumbing & Sanitation)

Credit Units: 03

Course Level: UG Level

Course Code: BID303

### Course Objectives:

- The objective of the course is to provide a clear understanding about the Water Supply, Sanitation and waste water disposal system in a building as part of the building services and know the latest market trends and requirements.

**Pre-requisites:** The students must possess fair understanding of basic services need for a building.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Introduction to Building Services</b>	
<b>Descriptors/Topics</b> Introduction to Building Services emphasis on Water Supply, Sanitation and Drainage, Water supply and distribution system at building level taking two-story building as example.	25%
<b>Module II: Sanitation disposal</b>	
<b>Descriptors/Topics</b> Sanitation disposal at city two industrial level & sanitary layout and fixture setting at building level, Toilet & Kitchen layout of a residential building with sanitary fitting & Fixture, Market survey of all the sanitary products and presentation in form of report	25%
<b>Module III: Piping system</b>	
<b>Descriptors/Topics</b> Interior to Piping system / I.C / G.T. and with all its types, Storm water drainage system in a building, Pipes and fittings, materials, size and classification.	25%
<b>Module IV: Water storage</b>	
<b>Descriptors/Topics</b> Underground, overhead and internal storage tanks and supply lines.	25%



## Student Learning Outcomes:

- Familiarize the students with different building materials and construction techniques.

## Pedagogy for Course Delivery:

- The course will use a mix of drawings, case study and sketching & hands on exercise. Participants are encouraged to engage in active interaction through classroom participation.

## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] Home Plumbing The David & Charles Manual, Ernest Hall
- [2] Water Supply & Sanitation, Charanjit S. Shah
- [3] The Construction of Building Vol - 1 to 5, R. Barry
- [4] Building Construction, N.L. Arora & B.R. Gupta
- [5] The Books of Kitchens, Anthony Rowley

## References:

- The Construction of Building Vol- 1 to 5, R. Barry
- Building Construction, N.L. Arora & B.R. Gupta
- Interior Detail – 1 (Residence), Jeong, Kwang Young
- Interior Spaces Vol – 6 (A Pictorial Review), Image Publishing Group



## Course structure: Photography

– BID304

**Course Title: Photography**

**Credit Units: 02**

**Course Level: UG Level**

**Course Code: BID304**

### Course Objectives:

- To develop a basic sense of visual perception for students through observation of composition, color and light interaction, shades and shadows and positive and negative space relationship.
- To develop competency in basic photographic techniques required for Interior Design.
- The course is skill based and practical involving the development of fundamental and technical capabilities necessary for photography.
- It enables students to see things, analyze them and express them in a strong visual form.

**Pre-requisites:** The students must possess fair understanding of Camera, basic photography.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Introduction</b>	
<b>Descriptors/Topics</b> the basic principles of photography and photographic equipment Analog and digital photography. Types of cameras. Understanding of the camera, its various parts and controls. Lenses, sensors, scanners, shutter speeds and movement, focus and aperture, choice of exposure, changing focal length, flash and its control, light conditions, light compensation. Accessories - studio equipment, tripod, flashlight, lens filters, hood, adapters, grid screen, memory cards, batteries and rechargeable etc., use of fixed focal lenses, black and white negative films.	20%
<b>Module II: Techniques</b>	
<b>Descriptors/Topics</b> Seeing and photographing, using the view finder, framing up, creating a point of emphasis, picking lighting conditions, pattern, texture and shape, color etc.	20%
<b>Module III: Lighting in photography</b>	
<b>Descriptors/Topics</b> quality and quantity, soft and hard, lighting direction, color temperature in camera meters, incident light meters, flash meters, using studio lights, number of lights, types of lights, tungsten, flash, fluorescent etc., proper accessories, reflectors, filters, shift lens, daylight, artificial light, mixed light, simple setups for adding light, multiple light sources etc.	20%



<b>Module IV: Digital photography</b>	<b>20%</b>
<b>Descriptors/Topics</b> introduction to digital photography tools, different aspects of taking images, steps in image processing, editing techniques, sequencing, image manipulation using a computer, storage formats, printing digital files, presentation of photographs.	
<b>Module V: Interior photography</b>	<b>20%</b>
<b>Descriptors/Topics</b> Analysis of subject and content, perspective – vanishing points, distortion, converging verticals, usage of shift lens, camera position, picture format, image frame and composition – stationery surrounding objects, moving objects. Shooting parameters – shutter speed, aperture, light sensitivity, exposure, shadows and reflections.	

### Student Learning Outcomes:

- Development of fundamental and technical capabilities necessary for photography.

### Pedagogy for Course Delivery:

- The course will use a mix of Presentations & hands on workshop. Participants are encouraged to engage in active interaction through classroom participation.

### Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

### Text Reading:

- [1] Scott Kelby, The Digital Photography Book, peachpit press, 1st edition,2006.
- [2] Tom Grimme & Michelle Grimme, The Basic Book of Photography, 5th ed., Plume, 2003.
- [3] Eric Roth, Interior Photography: Lighting and Other Professional Techniques with Style, Amphoto Books; illustrated edition , 2005
- [4] Julius Shulman & Richard Neutra, Photographing Architecture and Interiors, Balcony Press, 1st edition, 2000.
- [5] Michael Harris, Professional Interior Photography, Focal press publishers, third edition, 2003

### References:

- Philip Andrews & Michael Langford, Langford’s starting photography: A guide to better pictures for film and digital camera users, Focal press publishers, 4th edition, 2005.
- John Freeman, Lighting for Interiors, Rotovision publishers, illustrated edition, 2002.
- Bryan Peterson, Understanding close-up photography: Creative close encounters with or without a macro lens, Amphoto Books publishers, illustrated edition, 2009.





**Course structure: Computer Applications – II – BID305**

**Course Title: Computer Applications – II Credit Units: 02**

**Course Level: UG Level Course Code: BID305**

**Course Objectives:**

- To develop an understanding of software assisting in 3-Dimensional design.
- Introduction to the use and application of Internet.

**Pre-requisites:** The student should be able to make basic drawings using software & good knowledge of proportions and 3D objects.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Understanding AUTOCAD – 3D</b>	
<b>Descriptors/Topics</b> 3 - Dimensional drawings, learning to place elements in 3-D views of a redesigned space, Creating of 2D.	<b>20%</b>
<b>Module II: 3D Surfaces and Solids</b>	
<b>Descriptors/Topics</b> 3-D surface and solids. Developments of surfaces and solids, Use of these in various designing activities.	<b>30%</b>
<b>Module III: Viewports and Views</b>	
<b>Descriptors/Topics</b> Introduction to UCS viewports, 3-D views and 3-D orbit, Internet compatibility	<b>20%</b>
<b>Module IV: Using 3-D SOFTWARES</b>	
<b>Descriptors/Topics</b> 3-D and other related software for developing exterior and interior surfaces and spaces and creating,walkthroughs using camera, light and assigning materials	<b>30%</b>

**Student Learning Outcomes:**

- basic understanding of climatic types in India and the impact on requirements of building design and site planning.



**Pedagogy for Course Delivery:**

- The course will use a mix of drawings, Drafting & sketching. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Computers in Interior Design, A.K. Sinha

**References:**

- Architecture and computer, Ram Malhotra
- CAD and Interiors, B.K. Jain



## Course structure: History of Interior Design – III

– BID306

**Course Title:** History of Interior Design – III

**Credit Units:** 03

**Course Level:** UG Level

**Course Code:** BID306

### Course Objectives:

- The objective of the course is to know about the past trends of interior design development over the periods and learn the development methods and forces to get a clear view of changing design and ideas.
- Familiarize with the emergence and necessity of interior design and decoration which resulted in emergence of the profession.

**Pre-requisites:** The students must possess fair understanding of culture, society and their style of living.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Early 20th Century</b>	
<b>Descriptors/Topics</b> The Modern Movement, Period – Early 20th Century	20%
<b>Module II: Mid 20th Century</b>	
<b>Descriptors/Topics</b> Art Deco and the Modern, Period – Mid 20th Century	20%
<b>Module III: Western and Eastern</b>	
<b>Descriptors/Topics</b> The emergence of interior decoration as a profession	20%
<b>Module IV: Mid 20th century</b>	
<b>Descriptors/Topics</b> Post- war Modernism, Period – Mid 20th century	20%
<b>Module V: Late 20th century</b>	
<b>Descriptors/Topics</b> The Post – Modern/ contemporary era, Period – Late 20th century Present universal Trends emerged all over world	20%



**Student Learning Outcomes:**

- The past trends of interior design development over the periods
- Learn the development methods and forces to get a clear view of changing design and ideas.

**Pedagogy for Course Delivery:**

- The course will use a mix of drawings, Presentations & sketching. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] The History of Arch. in India, Chictophes Tadjell
- [2] Interior design & space planning, Dechiara Pabero Zelnik
- [3] Interior design illustrated, Francis D.K. Ching

**References:**

- Islamic Architecture in Interior, Satish Grover
- The Best Interior India, Anuradha Mahindra
- Indian Interior, Angelika Taschen



## Course structure: Workshop – II (Textile & Weaving / Printing) – BID307

**Course Title:** Workshop – II (Textile & Weaving/ Printing)

**Credit Units:** 03

**Course Level:** UG Level

**Course Code:** BID307

### Course Objectives:

- The aim of the course is to make the students aware of the uses of textiles and weaving techniques which is an important part of interior design.
- The history textiles and weaving in interiors is also to be introduced and described as the part of the course.

**Pre-requisites:** The students must possess fair understanding of culture, society and their style of living.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Role of fabrics for interior textiles</b>	
<b>Descriptors/Topics</b> Introduction to various kind of fabrics and its use in interiors	25%
<b>Module II: Materials, and its construction Techniques</b>	
<b>Descriptors/Topics</b> Introduction to material used, and their construction properties.	25%
<b>Module III: Handmade workshop</b>	
<b>Descriptors/Topics</b> Handmade workshop	25%
<b>Module IV: Design product and details</b>	
<b>Descriptors/Topics</b> Measuring drawing of a simple product and make it in the workshop, Introduction to various typology of products and Design Element.	25%

### Student Learning Outcomes:

- uses of textiles and weaving techniques in interior design.



**Pedagogy for Course Delivery:**

- The course will use a mix of drawings, Presentations & sketching and hands on workshop. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Interior design illustrated, Francis D.K. Ching
- [4] House Book (The Complete Guide to Home Design), Terence Conran
- [5] Architecture: Form, Space and Order Francis D.K. Ching

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von



## Course structure: Interior Design Studio – IV – BID401

**Course Title: Interior Design Studio - IV**

**Credit Units: 06**

**Course Level: UG Level**

**Course Code: BID401**

### Course Objectives:

- The objective of the course is to introduce the students with the different types of exhibition and presentation spaces and the interior design requirements related to them.
- The course should involve different design ideas and schemes to represent the designing of exhibition spaces, as these are the prime area of designing emerging in the modern world.

**Pre-requisites:** The students must possess fair understanding of basic design principles, design procedures and techniques of interior design.

### Course Contents/Syllabus:

	<b>Weightage (%)</b>
<b>Module I: Exhibition cum Retail Design</b>	<b>30%</b>
<b>Descriptors/Topics</b> Interior Design for specific ideas and select materials appropriate to intended purpose and to understand the visuals, tactile and functional characteristics, Develop an understanding of structures, special awareness, materials and processes, Develop skills in design development using working drawing, visual, scale models and prototypes followed by effective presentations of proposed design solutions of exhibitions.	
<b>Module II: Space organization</b>	<b>40%</b>
<b>Descriptors/Topics</b> Space organization in exhibition interiors, Surface treatments in interiors e.g. walls, floors, ceilings etc. Interior details in terms of lighting, services, interior landscape etc, Different types of materials that are available and their uses in interiors.	
<b>Module III: Layout</b>	<b>30%</b>
<b>Descriptors/Topics</b> Layout and Constructional details of furniture units, Application of color, texture, pattern and their psychological effects in interiors, Drawing of interiors in 2D and 3D views to understand the space design. Interior Model of the space with all furniture, interior details in place and interior finishes with different colors, Textures.	



**Student Learning Outcomes:**

- The different types of exhibition and presentation spaces and the interior design requirements related to them.

**Pedagogy for Course Delivery:**

- The course will use a mix of drawings, Presentations & hands on workshop. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] Drawing a Creative Process, Francis D.K. Ching
- [2] Design Drawing + CD, Francis D.K. Ching
- [3] Architecture Graphics, Francis D.K. Ching 4th Edition
- [4] Interior design & space planning, Dechiara Pabero Zelnik
- [5] Interior design illustrated, Francis D.K. Ching
- [6] Graphic Interiors
- [7] Space Designed by Graphic Artists, Corina Dean
- [8] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [9] House Book (The Complete Guide to Home Design), Terence Conran
- [10] Illustration + Perspectives (In Pantone Colors), Eiji Mitooka

**References:**

- Architectural Graphic standards editor – Boaz Joseph
- Neufert’s Architect’s data
- Time Saver standards for building types, editor Joseph D.C. and John Callender.
- Kitchen & Bath, Montse Zapata
- Bed room, Lestey Taylor
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall





## Course structure: Materials and Construction Techniques – III – BID402

Course Title: Materials and Construction Techniques – III Credit Units: 03

Course Level: UG Level Course Code: BID402

### Course Objectives:

- To introduce and familiarize the students with advanced and speedy building techniques
- The understanding for the system to be adopted for the construction of large span structures.

**Pre-requisites:** The students must possess fair understanding of basic construction techniques.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Reinforced Cement Concrete</b>	15%
<b>Descriptors/Topics</b> Reinforced Cement Concrete: Types, Mixing, Curing, Water Cement Ratio, and reinforced Brick Concrete, Qualities and workability	
<b>Module II: Prefabrication</b>	15%
<b>Descriptors/Topics</b> Systems- open prefab system, large panel prefab system, joints, pre-casting methods, materials, on – site and off- site prefabrication, components etc.	
<b>Module III: False Ceilings</b>	15%
<b>Descriptors/Topics</b> Introduction to false ceiling with all kind of materials, types and fixing methods.	
<b>Module IV: Steel/ Aluminum/Pre-fabrication windows</b>	15%
<b>Descriptors/Topics</b> Steel casement windows with fixtures, fittings and methods of fixing.	
<b>Module V: Glazing</b>	15%
<b>Descriptors/Topics</b> Skylights, Curtain walls, Double glazing, Eco Boards, wood and its products.	
<b>Module VI: Miscellaneous finishes</b>	15%
<b>Descriptors/Topics</b> Flyash, Ceramics, Plastics, Rubber,	
<b>Module VII: Commercial Interior, Office Interior, Industrial Interiors</b>	10%
<b>Descriptors/Topics</b> Structural steel works, Portal Frame Construction Techniques and construction materials.	



**Student Learning Outcomes:**

- Familiarize the students with advanced and speedy building techniques.
- The understanding for the system to be adopted for the construction of large span structures.

**Pedagogy for Course Delivery:**

- The course will use a mix of drawings, Presentations & hands on workshop. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Interior design illustrated, Francis D.K. Ching
- [3] House Book (The Complete Guide to Home Design), Terence Conran
- [4] Masonry (Concrete, Brick, Stone), Christine Beall
- [5] Metric Handbook (Planning & Design Data) 2nd Ed. Edited By, David Adler

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture – Meiss Pieree Von
- Architecture: Form, Space and Order – Francis D.K. Ching
- The Construction of Building Vol- 1 to 5, R. Barry
- Building Construction, N.L. Arora &, B.R. Gupta
- Interior Detail – 1 (Residence), Jeong, Kwang Young
- Interior Spaces Vol – 6 (A Pictorial Review), Image Publishing Group



## Course structure: Building Services - II

(Electrical, Fire Fighting & Security)

– BID403

Course Title: Building Services - II

(Electrical, Fire Fighting & Security)

Credit Units: 03

Course Level: UG Level

Course Code: BID403

### Course Objectives:

- To initiate students into theory and practice of Acoustics
- Introduction of HAVC in terms of theory and practical implementation.

**Pre-requisites:** The students must possess fair understanding of basic building services.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Natural/artificial lighting</b>	
<b>Descriptors/Topics</b> Natural/artificial lighting, Lighting of spaces, Lighting Equipment, Lighting conditions, Various systems of lighting	20%
<b>Module II: Internal/ external wiring</b>	
<b>Descriptors/Topics</b> Methods of Internal/ external wiring, Branch distribution boards, Lighting layout, fittings and fixtures.	20%
<b>Module III: Fire Regulations</b>	
<b>Descriptors/Topics</b> Fire resistant and fire retardants materials and their application	20%
<b>Module IV: Firefighting Equipment</b>	
<b>Descriptors/Topics</b> Firefighting Equipment, Fire resistant and methods to use, Code of Safety, fire regulations, fire insurance. Wet risers, dry risers, sprinklers, smoke detectors, fire exists, water curtains.	20%
<b>Module V: Life Safety Systems</b>	
<b>Descriptors/Topics</b> Intelligent interior consists of the use of high technology to maximize the performance of fire alarms and security systems while at the same time minimizing costs.	20%



**Student Learning Outcomes:**

The students should be able to:

- Apply practice of electrical systems and fixtures.
- distribution of main supply, fittings and accessories.

**Pedagogy for Course Delivery:**

- The course will use a mix of drawings, Presentations & hands on workshop. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] Air Conditioning, S. Shah
- [2] The Construction of Building Vol - 1 to 5, R. Barry
- [3] Drywall (Pro Tips for Hanging & Finishing), John D. Wagner
- [4] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean
- [5] Interior design illustrated, Francis D.K. Ching
- [6] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean

**References:**

- Building Construction, N.L. Arora & B.R. Gupta
- Building Services, Anthony Rowley
- A.J. Metric Handbook, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards, Boaz Joseph
- The Curtain Book, Mitchll Beazlty
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka



## Course structure: Interior Estimation, Specification & Costing – BID405

Course Title: Interior Estimation, Specification & Costing Credit Units: 03

Course Level: UG Level Course Code: BID405

### Course Objectives:

- The objective of the course is to initiate into the theories and practices of estimation and surveying. In a project with the specification of the materials and quantities used in the project of any kind either selected by the student or given by the college.

**Pre-requisites:** The students must possess fair understanding of market rates of materials and construction.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Introduction</b>	
<b>Descriptors/Topics</b> Introduction to estimation, Estimation calculations, types of calculation, special jobs	20%
<b>Module II: Specifications</b>	
<b>Descriptors/Topics</b> Introduction to specifications and writing detailed specification for various building materials, building construction works.	20%
<b>Module III: B.O.Q</b>	
<b>Descriptors/Topics</b> Fire resistant and fire retardants materials and their application	20%
<b>Module IV: Firefighting Equipment</b>	
<b>Descriptors/Topics</b> Working out quantities schedule of rates and Bill of Quantities	20%

### Student Learning Outcomes:

- Student should be able to working out quantities schedule of rates and Bill of Quantities.

### Pedagogy for Course Delivery:

- Laboratory sessions, which support the formal lecture material and also provide the student with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.



## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] The Construction of Building Vol - 1 to 5, R. Barry
- [2] Building Construction, N.L. Arora &, B.R. Gupta

## References:

- Design for Living
- R.L.BAWA, Boniface G. Fernandes
- Metric Hand book (Planning and Design) Edited by David Alder



## Course structure: Workshop – III (Ceramics in Interior)

– BID407

**Course Title: Workshop – III (Ceramics in Interior)**

**Credit Units: 04**

**Course Level: UG Level**

**Course Code: BID407**

### Course Objectives:

- Ceramic designing course is a combination of creativity, science as well as technology.
- The ceramic designing is an exclusive and creative course for students who want to study designing as well as engineering for open-end career options in Interior decoration.
- The course, designed in a way that students learn technology for production of Glasses has advanced to designing in a way that is safe for environment and energy efficient.
- The Glass and Ceramics based products, over the years have become luxurious and artistic with lightweight, energy-saving and wear-resistant ceramic products such as ceramic ceiling tiles, floor tiles, ceramic sanitary-wares, pottery, table-ware, ornamental-ware, biomedical implants, jet-engine turbines, bullet-resistant vests etc.

**Pre-requisites:** The students must possess fair understanding of clay and ceramic products.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Introduction</b>	
<b>Descriptors/Topics</b> Introduction to Ceramics	30%
<b>Module II: Tools and techniques for hard material designing</b>	
<b>Descriptors/Topics</b> Introduction to tools and techniques for hard material designing.	30%
<b>Module III: Model making and manufacturing</b>	
<b>Descriptors/Topics</b> Work within a variety of industry, producing tableware, tiles, sanitary ware	40%

### Student Learning Outcomes:

- They are familiar with technology that is used to design ceramics and glassware and, work in construction market to design high-end products.

### Pedagogy for Course Delivery:

- Laboratory sessions, which support the formal lecture material and also provide the student with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.



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MADHYA PRADESH

Established vide Government of Madhya Pradesh Act No. 27 of 2010

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

### Text Reading:

- [1] Things of Beauty Growing by Glenn Adamson, Glenn Adamson, Martina Droth, Simon Olding
- [2] Ceramics: Materials for Inspirational Design (Interior and Industrial Design)

### References:

- Design for Living
- R.L.BAWA, Boniface G. Fernandes





## Course structure: Product Design

– BID408

**Course Title: Product Design**

**Credit Units: 02**

**Course Level: UG Level**

**Course Code: BID408**

### Course Objectives:

- To understand the inter-relationship of various parameters through design process, gather data, analyze, synthesize and apply to develop a design solution.
- To explore design solution with thrust on critical analysis of existing products, user needs, material specifications, customized production, latest manufacturing technology
- The primary objective of a design studio is to inculcate in a student the attitude of evolving a design process for herself/himself

**Pre-requisites:** The students must possess fair understanding of daily use products used in interiors.

### Course Contents/Syllabus:

	<b>Weightage (%)</b>
<b>Module I: Redesigning a product - Design theory and methodology</b>	
<b>Descriptors/Topics</b> Case study of various products to understand the design methodology, Identification and detailed study of any product to redesign, Data collection of research study.	<b>20%</b>
<b>Module II: Redesigning a product - Analysis and synthesis</b>	
<b>Descriptors/Topics</b> Concept generation on the basis of analytical approach of thorough research study of a product, detailing included material identification, technology, color, usage etc, Prototype making and presentation.	<b>20%</b>
<b>Module III: Contemporary Design - Product research and User survey</b>	
<b>Descriptors/Topics</b> Case study and analytical approach on contemporary designers, Identification of area to design a product and research study, Building up design -brief, market and user survey.	<b>20%</b>
<b>Module IV: Contemporary Design - Analysis of research study and concept generation</b>	
<b>Descriptors/Topics</b> Data analysis of market and user survey, Re-define design brief, Concept generation with inclusion of ergonomics, form, manufacturing process, selection of materials	<b>20%</b>



<b>Module V: Contemporary Design - Implementation and documentation</b>	<b>20%</b>
<b>Descriptors/Topics</b> Model making / prototyping, Branding, packaging & product graphics, Final presentation and documentation.	

### Student Learning Outcomes:

- They are familiar with technology that is used to design ceramics and glassware and, work in construction market to design high-end products.

### Pedagogy for Course Delivery:

- Laboratory sessions, which support the formal lecture material and also provide the student with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.

### Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

### Text Reading:

- Product And Furniture Design The Manufacturing Guides By Rob Thompson, Thames & Hudson, 1st Edition, (2011)
- Handmade In India By M.P. Ranjan And Aditi Ranjan, Arihant Publications India Ltd., 1st Edition, (2008)

### References:

- 50 Product Designs From Concept To Manufacture By Jennifer Hudson, Laurence King Publishing, 2nd Edition, (2008)
- The Design Of Everyday Things By Norman A Donald, Basic Books, 1st



## Course structure: Interior Landscape Design

– BID409

**Course Title: Interior Landscape Design**

**Credit Units: 02**

**Course Level: UG Level**

**Course Code: BID409**

### Course Objectives:

- To develop a conceptual understanding of landscaping design parameters for various built forms.
- To develop skills in integrating landscape design with built environments.
- This course introduces students to the knowledge of landscaping design parameters, landscape elements, plant materials etc. to use in the interiors effectively for aesthetic enhancement and visual comfort.
- Study of landscapes, their use in landscape. Introductions to design principals & methodology of landscape design.

**Pre-requisites:** The students must possess fair understanding of plantation, environmental benefits.

### Course Contents/Syllabus:

	<b>Weightage (%)</b>
<b>Module I: Introduction to landscape architecture</b>	
<b>Descriptors/Topics</b> role of landscaping design in the built environment. Types of natural elements – stones, rocks, pebbles, water forms, plants and vegetation. Elements of interior landscape.	<b>25%</b>
<b>Module II: Introduction to study of plants in relation to landscape design and interiors</b>	
<b>Descriptors/Topics</b> Types of indoor plants, plant characteristics: i.e., biology, soil, moisture, light nutrient, atmospheric conditions, growing medium, pests & diseases. (herbarium) Botanical nomenclature, anatomy and physiology of plant growth. Indoor plants in Indian context. Market survey and costs.	<b>25%</b>
<b>Module III: Design with plants</b>	
<b>Descriptors/Topics</b> Basic principles of designs. The physical attribute of plants and relation to design. Appearance, functional and visual effects of plants in landscape design and built environment. Selection and management of plant material in relation to the built environment. Design concepts related to use of sculpture, lightings, garden furniture, architectural feature and grouping them into meaningful compositions for visual and functional effects.	<b>25%</b>

<b>Module IV: Landscaping design parameters for various types of built forms</b>	
<b>Descriptors/Topics</b> indoor and outdoor linkage to spaces. Landscaping of courtyards- residential and commercial forms. Indoor plants and their visual characteristics- color, texture, foliage. Science of maintaining and growing greenery. Flowers- its colors, texture and its visual perception in various indoor spaces and science of flower arrangement. Automatic irrigation costing and installation of micro irrigation systems.	25%

**Student Learning Outcomes:**

- They are familiar with technology that is used to design ceramics and glassware and, work in construction market to design high-end products.

**Pedagogy for Course Delivery:**

- Laboratory sessions, which support the formal lecture material and also provide the student with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

**Text Reading:**

- Laurie, Michael, An Introduction to Landscape. 2nd edition, Prentice Hall, New Jersey, 1986.
- Trivedi. P.Prathiba. Beautiful Shrubs. Indian council of Agricultural Research. New Delhi, 1990.
- Hacheat, Blan. Plant Design.

**References:**

- Gerald Robert Vizenor , A Guide to Interior Landscapes, Univ of Minnesota Press, 1990.
- Nelson Hammer and Mel Green, Interior Landscape Design, Mc Graw Hill, 1991.

**Course structure: Interior Design Studio- V****– BID501****Course Title: Interior Design Studio- V****Credit Units: 06****Course Level: UG Level****Course Code: BID501****Course Objectives:**

- This unit focuses and function 3-D and spatial design of offices.
- This unit addresses the technical and practical issues encountered while designing while designing most functional office space.

**Pre-requisites:** The students must possess fair understanding of basic design principles, design procedures and techniques of interior design.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Introduction - Office Design</b>	
<b>Descriptors/Topics</b> Study and research of all interior elements i.e. furniture, false ceiling, light and other equipments required in an office interior and making a presentation of the same.	<b>25%</b>
<b>Module II: Requirements</b>	
<b>Descriptors/Topics</b> Identifying the needs of the client and understanding the requirements needed for the proper functioning of the office space.	<b>25%</b>
<b>Module III: Concepts</b>	
<b>Descriptors/Topics</b> Developing of concepts for an office interior spaces, Making technical drawings of the design given, Study the materials used in the interior spaces of the building.	<b>25%</b>
<b>Module IV: Presentation</b>	
<b>Descriptors/Topics</b> Final presentation of the work through graphical representation by different techniques.	<b>25%</b>

**Student Learning Outcomes:**

- They are familiar with technology that is used to design ceramics and glassware and, work in construction market to design high-end products.

**Pedagogy for Course Delivery:**

- Laboratory sessions, which support the formal lecture material and also provide the student

with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.



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**Assessment/ Examination Scheme:** Under Government of Madhya Pradesh Act No. 27 of 2010

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
<b>Weightage (%)</b>	<b>10</b>	<b>15</b>	<b>5</b>	<b>70</b>

### **Text Reading:**

- [1] Drawing a Creative Process, Francis D.K. Ching
- [2] Design Drawing + CD, Francis D.K. Ching
- [3] Architecture Graphics, Francis D.K. Ching 4th Edition
- [4] Interior design & space planning, Dechiara Pabero Zelnik
- [5] Interior design illustrated, Francis D.K. Ching
- [6] Graphic Interiors, (Space Designed by Graphic Artists), Corina Dean
- [7] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [8] House Book (The Complete Guide to Home Design), Terence Conran
- [9] Illustration + Perspectives (In Pantone Colors)
- [10] Interior Style & Design (Frank Lloyd Wright) Doreem Ehrlich, Eiji Mitooka

### **References:**

- Architectural Graphic standards editor, Boaz Joseph
- Neufert's Architect's data
- Time Saver standards for building types, Editor Joseph D.C. and John Callender.
- Kitchen & Bath, Montse Zapata
- Bed room, Lestey Taylor
- The Curtain Book, Mitchll Beazly
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion Charles T. Randall

**Course structure: Material & Construction Techniques - IV – BID502**

**Course Title: Material & Construction Techniques - IV Credit Units: 03**

**Course Level: UG Level Course Code: BID502**

**Course Objectives:**

- To introduce and familiarize the students with the various construction equipment required for speedy and effective construction work.
- To study the causes and remedies of various defects in existing and new construction.
- Understanding the need and application of modular coordination in buildings.

**Pre-requisites:** The students must possess fair understanding of basic construction techniques.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Introduction to Flooring</b>	<b>50%</b>
<b>Descriptors/Topics</b> Various types of floor details and staircases with handrail in different materials with different fixing details.	
<b>Module II: Modular Coordination</b>	<b>50%</b>
<b>Descriptors/Topics</b> Assembly of components, modules, Standardization in buildings and design their components.	

**Student Learning Outcomes:**

The students should be able to:

- Identify the causes and remedies of various defects in existing and new construction.
- The need and application of modular coordination in buildings.

**Pedagogy for Course Delivery:**

- Laboratory sessions, which support the formal lecture material and also provide the student with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.



**Material & Construction Techniques - IV / Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
<b>Weightage (%)</b>	<b>10</b>	<b>15</b>	<b>5</b>	<b>70</b>

**Text Reading:**

- [1] Building Construction Vol-1 to 4, W.B. McKay, J.K. McKay
- [2] The Construction of Building Vol- 1 to 5, R. Barry
- [3] Building Construction, N.L. Arora &, B.R. Gupta

**References:**

- Design for Living, R.L. BAWA, Boniface G. Fernandes
- Metric Hand book (Planning and Design), David Alder
- Building Construction illustrated, Francis D.K, Ching 3rd Edition





**Course structure: Building Interior Services - III**  
**(HVAC & Acoustics, Lift & Escalators) – BID503**

**Course Title: Building Interior Services - III**  
**(HVAC & Acoustics, Lift & Escalators) Credit Units: 03**

**Course Level: UG Level Course Code: BID503**

**Course Objectives:**

- Studying advanced and specialized services for complex buildings.
- Applying in architectural design and preparation layout and details.
- To initiate students into theory and practice of Acoustics
- Introduction of HVAC in terms of theory and practical implementation.

**Pre-requisites:** The students must possess fair understanding of building services.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Introduction and terminology</b>	
<b>Descriptors/Topics</b> Properties of audible sound, intensity and loudness, frequency and pitch, quality	<b>50%</b>
<b>Module II: Acoustics</b>	
<b>Descriptors/Topics</b> Common acoustical defects: Echo. Insufficient loudness, external noise, reverberation. Constructional measures for sound insulation of building: Materials, Hollow and composite wall construction, flooring and ceiling. Acoustic design considerations for the following: Auditorium, conference rooms, seminar halls.	<b>50%</b>
<b>Module III: HVAC (Heating, Ventilation and Air Conditioning)</b>	
<b>Descriptors/Topics</b> Natural Ventilation, Heating of spaces – local and central heating, Heating Equipment, Comfort conditions, Mechanical ventilation	<b>50%</b>
<b>Module IV: Air Conditioning</b>	
<b>Descriptors/Topics</b> Various systems of air conditioning – Window Unit, split, Chilled water system, Duct work and air conditioning layout, fittings and fixtures	<b>50%</b>

<b>Module IV: Lift &amp; Escalators</b>	
 <b>Descriptors / Topics</b> Lifts/ Elevators/ Escalators in interior design	<b>50%</b>

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### Student Learning Outcomes:

The students should be able to:

- Introduction of HVAC in terms of theory and practical implementation.
- Use advanced building construction techniques.

### Pedagogy for Course Delivery:

- Laboratory sessions, which support the formal lecture material and also provide the student with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.

### Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

### Text Reading:

- [1] Air Conditioning, S. Shah
- [2] The Construction of Building Vol - 1 to 5, R. Barry
- [3] A Visual Dictionary of Architecture, Francis D.K. Ching
- [4] Interior design illustrated, Francis D.K. Ching

### References:

- Building Construction, N.L. Arora & B.R. Gupta
- Building Services, Anthony Rowley
- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching
- The Construction of Building Vol- 1 to 5, R. Barry
- Building Construction, N.L. Arora & B.R. Gupta
- Interior Detail – 1 (Residence), Jeong, Kwang Young
- Interior Spaces Vol – 6 (A Pictorial Review), Image Publishing Group

**Course structure: Working Drawings****– BID504****Course Title: Working Drawings****Credit Units: 02****Course Level: UG Level****Course Code: BID504****Course Objectives:**

- To impart training in the preparation of working drawings for buildings with specific reference to code of practice and incorporating specifications as complementary to the working drawings.
- The focus of the course is to impart skills related to the preparation of drawings meant for execution on the site.

**Pre-requisites:** The students must possess fair understanding of details and measurement for execution.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Preparation of working drawings</b>	
<b>Descriptors/Topics</b> Suitable scales of drawings, methods of giving dimensions and standards on plans, sections, elevations, details etc.	<b>25%</b>
<b>Module II: Preparation of plans</b>	
<b>Descriptors/Topics</b> Architectural plans, furniture layout floor plans with clearances, different level floor plans, detailed floor plans of each room.	<b>25%</b>
<b>Module III: Elevations and Sections</b>	
<b>Descriptors/Topics</b> Detailed sectional elevations of all the walls in the interior with all the required dimensions and specifications.	<b>25%</b>
<b>Module IV: Details of all services</b>	
<b>Descriptors/Topics</b> layouts for flooring, ceiling, electrical, plumbing, lighting, fire fighting etc., toilet details, kitchen details, staircase details, furniture details, Interior finishing details, material, color and texture details, fixture and fixing and joinery details.	<b>25%</b>

**Student Learning Outcomes:**

The students should be able to:

- The preparation of working drawings for buildings with specific reference to code of practice and incorporating specifications as complementary to the working drawings.



## Pedagogy for Course Delivery:

- The formal lecture material and also provide the student with practical construction, measurement and debugging skills. Participants are encouraged to engage in active interaction through classroom participation.

## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] Leibing. W. Ralph, Architectural Working Drawings, 4th edition, John Wiley and Sons, New York, 1999.
- [2] Macey. W. Frank, Specification in detail, 5th edition, Technical Press Ltd, London, 1955.
- [3] Shah, M.G.; and others, Building Drawing : An integrated approach to build environment, 3rd ed, Tata McGraw Hill Pub. Co. Ltd, New Delhi, 1996.
- [4] Fredd Stitt, Working Drawing Manual, McGraw-Hill Professional; 1st edition, 1998. Kilmer, Workind Drawings and Details for Interiors, John Wiley and Sons,



**Course structure: Revitalization of Art & Craft - I**

**– BID505**

**Course Title: Revitalization of Art & Craft – I**

**Credit Units: 03**

**Course Level: UG Level Course**

**Course Code: BID505**

**Objectives:**

Understanding of art/craft forms as design elements and its relevant application in the modern society, Modernization of old craft technology for better forms for interior

**Pre-requisites:** The students must possess fair understanding of various crafts of india.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Identification of private and public craft</b>	
<b>Descriptors/Topics</b> Identification of private and public craft activity around the nation, Various crafts and its perception in the society-design issues in transforming old craft forms into modern context by keeping its original spirits, Select one of the art/craft forms. Visit to the craft pockets, document people life, culture and craft and understand the materials, tools, technology, processes and forms. Suggest suitable changes in technology to improve the products so as to make it acceptable in today's context.	<b>40%</b>
<b>Module II: Art and built form</b>	
<b>Descriptors/Topics</b> Art and built form in traditional and vernacular buildings: Rajasthan, Gujarat.	<b>30%</b>
<b>Module III: Studies related to the Craft Sector</b>	
<b>Descriptors/Topics</b> Best Studies related to the Craft Sector, Case Studies From Gujarat, Rajasthan, Uttarakhand, Miscellaneous Case Studies, Craft and Technology in Interior Architecture: Decoding Systems and Transformation through Time.	<b>30%</b>

**Student Learning Outcomes:**

The course provides an understanding of the role of revitalization of Art/Craft form in Interior Spaces.

**Pedagogy for Course Delivery:**

- The formal lecture material and also provide the student with case study, hands on skills. Participants are encouraged to engage in active interaction through classroom participation.



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Assessment/ Examination Scheme: <b>Components</b>	<b>Mid- Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage (%)	10	15	5	70

## Text Reading:

- [1] Indian handicrafts, Ministry of information broadcasting ,Govt.of India,1972.
- [2] Laura Slack, What is product Design? Roto Vision publishers, 2006
- [3] Treena Crochet and David Vleck, Designer"s ,Guide to Decorative Accessories,:Prentice Hall, 1st edition, 2008.
- [4] Michael Ashby, Kara Johnson, Materials and Design: The Art and Science of material selection in product design, Butter Worth Heinemann, 1st edition, 2002.
- [5] International Design Yearbook, 1995: Furniture, Lighting, Tableware, Textiles and Products, Books Nippan, 1996.
- [6] Karl. T. Ulrich, Steven D. Eppinger, Product Design and Development, McGraw-Hill Education Singapore; 4th edition, 2007
- [7] William Lidwell, Kritina Holden, Jill Butler ,Universal principles of Design, Rockport publishers, 2003.
- [8] June Fish, Designing and Printing textiles, Crowood press, 2005
- [9] R.W.Lee, Printing on Textiles by Direct and Transfer Techniques, Noyes Data Corporation, 1981
- [10] Marypaul Yates, Fabrics: A guide for architects and Interior Designers, Norton publishers, 2002.
- [11] Corky Bingelli, Materials for Interior Environments, John wiley and sons, 2



## Course structure: Furniture Detailing – I

– BID506

Course Title: Furniture Detailing - I

Credit Units: 02

Course Level: UG Level

Course Code: BID506

### Course Objectives:

- The aim of the course is to make the students aware of the furniture designing which is an important part of interior design.
- The history of furniture is also to be introduced and described as the part of the

course. **Pre-requisites:** The students must possess fair understanding of various

furniture. **Course Contents/Syllabus:**

	Weightage (%)
<b>Module I: Furniture design</b>	
<b>Descriptors/Topics</b> Introduction to furniture design, analyzing furniture type, form and designing	25%
<b>Module II: Furniture materials</b>	
<b>Descriptors/Topics</b> Introduction to furniture design materials used.	25%
<b>Module III: Parameters</b>	
<b>Descriptors/Topics</b> Analyzing working parameters and visual perception of furniture	25%
<b>Module IV: Measuring drawing</b>	
<b>Descriptors/Topics</b> Measuring drawing of a simple furniture and make it in the workshop, Introduction to various typology of furniture.	25%

### Student Learning Outcomes:

- The students aware of the furniture designing which is an important part of interior design.

### Pedagogy for Course Delivery:

- Laboratory based with support of the formal lecture material and also provide the student with case study, hands on skills. Participants are encouraged to engage in active interaction through classroom participation.



**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
<b>Weightage (%)</b>	<b>10</b>	<b>15</b>	<b>5</b>	<b>70</b>

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching [2]  
Creative Interiors (Design of Enclosed Space), Shashi Jain [3]  
Interior design illustrated, Francis D.K. Ching  
[4] Home Plumbing (The David & Charles Manual of), Ernest Hall  
[5] House Book (The Complete Guide to Home Design), Terence Conran [6]  
Architecture: Form, Space and Order Francis D.K. Ching

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von





**Course structure: Workshop - IV (Metal Art)**

**– BID507**

**Course Title: Workshop - IV (Metal Art)**

**Credit Units: 02**

**Course Level: UG Level**

**Course Code: BID507**

**Course Objectives:**

- The objective of the course is to introduce the tools and techniques used for making models out of glass & plastic sheets etc.
- This course enables students for the construction of 3-Dimensional models with different materials.

**Pre-requisites:** The students must possess fair understanding of various furniture.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Concept of Model Making</b>	<b>50%</b>
<b>Descriptors/Topics</b> Making of models with different materials and colour them also.	
<b>Module II: Model materials</b>	<b>50%</b>
<b>Descriptors/Topics</b> Model should be made of glass, plastic, paper, wood & cardboard etc. The models should be made in model making workshop.	

**Student Learning Outcomes:**

- The students aware of the furniture designing which is an important part of interior design.

**Pedagogy for Course Delivery:**

- Laboratory based with support of the formal lecture material and also provide the student with case study, hands on skills. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
Weightage (%)	10	15	5	70



**AMITY UNIVERSITY**  
MADHYA PRADESH

*Established vide Government of Madhya Pradesh Act No. 27 of 2010*

**Text Reading:**

- [1] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [2] House Book (The Complete Guide to Home Design), Terence Conran
- [3] Architecture: Form, Space and Order, Francis D.K. Ching

**References:**

- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching



## Course structure: Interior Design Studio – VI – BID601

Course Title: Interior Design Studio – VI Credit Units: 06

Course Level: UG Level Course Code: BID601

### Course Objectives:

- This unit focuses and function 3-D and spatial design of Hotels/ Resorts.
- This unit addresses the technical and practical issues encountered while designing while designing most functional Hotels/ Resorts.

**Pre-requisites:** The students must possess fair understanding of basic design principles, design procedures and techniques of interior design.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Introduction - Hotels/ Resorts Design</b>	
<b>Descriptors/Topics</b> Study and research of all interior elements i.e. furniture, false ceiling, materials, finishes, lighting and other equipments required in an hotel interior and making a presentation of the same. Study of different functional and supporting spaces in the functioning of a hotel like Kitchen, restaurants, clubs, recreational spaces, different types of rooms etc.	25%
<b>Module II: Requirements</b>	
<b>Descriptors/Topics</b> Identifying the needs of the user and understanding the requirements needed for the proper functioning of the Hotels/ Resorts.	25%
<b>Module III: Concepts</b>	
<b>Descriptors/Topics</b> Developing of concepts for an Hotels/ Resorts interior spaces, Making technical drawings of the design given, Study the materials used in the interior spaces of the building.	25%
<b>Module IV: Presentation</b>	
<b>Descriptors/Topics</b> Final presentation of the work done.	25%

### Student Learning Outcomes:

- Able to do spatial design of Hotels/ Resorts.
- unit addresses the technical and practical issues encountered while designing while designing most functional Hotels/ Resorts.



### **Pedagogy for Course Delivery:**

The formal lecture material and also provide the student with case study, presentations & hands on skills. Participants are encouraged to engage in active interaction through classroom participation.

### **Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
<b>Weightage (%)</b>	<b>10</b>	<b>15</b>	<b>5</b>	<b>70</b>

### **Text Reading:**

- [1] Drawing a Creative Process, Francis D.K. Ching
- [2] Design Drawing + CD, Francis D.K. Ching
- [3] Architecture Graphics, Francis D.K. Ching 4th Edition
- [4] Interior design & space planning, Dechiara Pabero Zelnik
- [5] Interior design illustrated, Francis D.K. Ching
- [6] Graphic Interiors, (Space Designed by Graphic Artists), Corina Dean
- [7] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [8] House Book (The Complete Guide to Home Design), Terence Conran
- [9] Illustration + Perspectives (In Pantone Colors)
- [10] Interior Style & Design (Frank Lloyd Wright) Doreem Ehrlich, Eiji Mitooka

### **References:**

- Architectural Graphic standards editor, Boaz Joseph
- Neufert's Architect's data
- Time Saver standards for building types, Editor Joseph D.C. and John Callender.
- Kitchen & Bath, Montse Zapata
- Bed room, Lestey Taylor
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall



**Course structure: Dissertation – BID602**

**Course Title: Dissertation**

**Credit Units: 02**

**Course Level: UG Level**

**Course Code: BID602**

**Course Objectives:**

- A research study will be undertaken by each student of different topics of immediate relevance to the professional knowledge.
- The study would include a through literature survey as well as data collection from the field service or by contact with practicing Architects, Interior designers and public at large as clients.
- Each student will prepare an analytical research project based on the above information and submit in the form of a well-complied document duly illustrated with relevant diagrams, sketches and informatics presentation.

**Pre-requisites:** Dissertation may be treated as a preamble as the base of the thesis project if preferred by the student and approved by the student.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Design Dissertation</b>	
<b>Descriptors/Topics</b> Introduction to the Interior design dissertation that shall be a in form of a study report for the project undertaken by the students on a theme and topic.	<b>25%</b>
<b>Module II: Analysis</b>	
<b>Descriptors/Topics</b> Research analysis and data collection, Justification to topic selected	<b>25%</b>
<b>Module III: Methodology</b>	
<b>Descriptors/Topics</b> Developing of concepts for an Hotels/ Resorts interior spaces, Making technical drawings of the design given, Study the materials used in the interior spaces of the building.	<b>25%</b>
<b>Module IV: Designing</b>	
<b>Descriptors/Topics</b> Concept and designing, User requirements and standards, Climatic conditions, Interior landscape	<b>25%</b>

**Student Learning Outcomes:**

- Able to do spatial design of Hotels/ Resorts.
- unit addresses the technical and practical issues encountered while designing while designing most functional Hotels/ Resorts.



**Assessment/ Examination Scheme:**

Components	Project	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Commercial Interior Perspectives, Graphic - Sha (Editor)
- [4] Design with Wood, Carol Soucek King
- [5] Drywall (Pro Tips for Hanging & Finishing), John D. Wagner
- [6] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean
- [7] Interior design illustrated, Francis D.K. Ching
- [8] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean
- [9] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [10] House Book (The Complete Guide to Home Design), Terence Conran
- [11] Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- [12] Elements of Architecture, Meiss Pieree Von
- [13] Architecture: Form, Space and Order, Francis D.K. Ching

**References:**

- A.J. Metric Handbook, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards, Boaz Joseph
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching



**Course structure: Revitalization of Art & Craft- II**

**– BID605**

**Course Title: Revitalization of Art & Craft- II**

**Credit Units: 03**

**Course Level: UG Level Course Objectives:**

**Course Code: BID605**

- The course provides an understanding of the role of revitalization of Art/Craft form in Interior Spaces.
- Understanding of art/craft forms as design elements and its relevant application in the modern society, Modernization of old craft technology for better forms for interior

**Pre-requisites:** The students must possess fair understanding of various crafts of India.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Design Dissertation</b>	
<b>Descriptors/Topics</b> Introduction to the Interior design dissertation that shall be a in form of a study report for the project undertaken by the students on a theme and topic.	<b>25%</b>
<b>Module II: Analysis</b>	
<b>Descriptors/Topics</b> Research analysis and data collection, Justification to topic selected	<b>25%</b>
<b>Module III: Methodology</b>	
<b>Descriptors/Topics</b> Developing of concepts for an Hotels/ Resorts interior spaces, Making technical drawings of the design given, Study the materials used in the interior spaces of the building.	<b>25%</b>
<b>Module IV: Designing</b>	
<b>Descriptors/Topics</b> Concept and designing, User requirements and standards, Climatic conditions, Interior landscape	<b>25%</b>

**Student Learning Outcomes:**

- The course provides an understanding of the role of revitalization of Art/Craft form in Interior Spaces.





## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] Indian handicrafts, Ministry of information broadcasting ,Govt.of India,1972.
- [2] Laura Slack, What is product Design? Roto Vision publishers, 2006
- [3] Treena Crochet and David Vleck, Designer`s ,Guide to Decorative Accessories,:Prentice Hall, 1st edition, 2008.
- [4] Michael Ashby, Kara Johnson, Materials and Design: The Art and Science of material selection in product design, Butter Worth Heinemann, 1st edition, 2002.
- [5] International Design Yearbook, 1995: Furniture, Lighting, Tableware, Textiles and Products, Books Nippan, 1996.
- [6] Karl. T. Ulrich, Steven D. Eppinger, Product Design and Development, McGraw-Hill Education Singapore; 4th edition, 2007
- [7] William Lidwell, Kritina Holden, Jill Butler ,Universal principles of Design, Rockport publishers, 2003.
- [8] June Fish, Designing and Printing textiles, Crowood press, 2005
- [9] R.W.Lee, Printing on Textiles by Direct and Transfer Techniques, Noyes Data Corporation, 1981
- [10] Marypaul Yates, Fabrics: A guide for architects and Interior Designers, Norton publishers, 2002.
- [11] Corky Bingelli, Materials for Interior Environments, John wiley and sons, 2

## References:

- A.J. Metric Handbook, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards, Boaz Joseph
- The Curtain Book, Mitchll Beazlty
- Interior Design Visual, Maureen Mitton 2nd Edition
- 100 Bright Ideas For color, Sue Rose
- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching





## Course structure: Furniture Detailing -II

– BID606

**Course Title: Furniture Detailing -II**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID606**

### Course Objectives:

- The objective of the course is to provide knowledge about analysis of existing piece of furniture in its functional aspect, technical aspects and skill required materials and properties, biomechanical factors and ergonomically consideration, aesthetic consideration and back acing and economic factors consideration.

**Pre-requisites:** The students must possess fair understanding of various furniture's.

### Course Contents/Syllabus:

	<b>Weightage (%)</b>
<b>Module I: Analyzing furniture</b>	
<b>Descriptors/Topics</b> Analyzing furniture forms and designing furniture forms scientifically based on ergonomics, material design and working parameters and visual perception of furniture as a single form and as a system in a given interior space.	<b>25%</b>
<b>Module II: Measurement drawing</b>	
<b>Descriptors/Topics</b> Measurement drawing of a piece of a furniture-plan, elevation and detail drawings on proper scale. Design of a simple object having some moving components – folding stool. History of furniture from early days to industrial revolution.	<b>25%</b>
<b>Module III: Modular Aspect</b>	
<b>Descriptors/Topics</b> Modular aspect and approach towards all types of furniture, cost criteria of design furniture for lower income sector society.	<b>25%</b>
<b>Module IV: Furniture Style</b>	
<b>Descriptors/Topics</b> Design and understand Post Independence furniture style.	<b>25%</b>

### Student Learning Outcomes:

- The course provides an understanding of the role of revitalization of Art/Craft form in Interior Spaces.



**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (VV)</b>
<b>Weightage (%)</b>	<b>10</b>	<b>15</b>	<b>5</b>	<b>70</b>

**Text Reading:**

- [1] A Visual Dictionary of Architecture, Francis D.K. Ching
- [2] Creative Interiors (Design of Enclosed Space), Shashi Jain
- [3] Interior design illustrated, Francis D.K. Ching
- [4] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [5] House Book (The Complete Guide to Home Design), Terence Conran
- [6] Architecture: Form, Space and Order Francis D.K. Ching

**References:**

- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von



**Course structure: Workshop - V (Glass & Plastic)**

**– BID607**

**Course Title: Workshop - V (Glass & Plastic)**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID607**

**Course Objectives:**

- The objective of the course is to introduce the tools and techniques used for making models out of fabrics, clothes, glass, plastic sheets, wire, P.O.P., Clay etc. This course enables students for the construction of 3-Dimensional models with different materials.

**Pre-requisites:** The students must possess fair understanding of various furniture's.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Concept of Model Making</b>	
<b>Descriptors/Topics</b> Making of models with different materials and colour them also.	<b>30%</b>
<b>Module II: Measurement drawing</b>	
<b>Descriptors/Topics</b> Measurement drawing of a piece of a furniture-plan, elevation and detail drawings on proper scale. Design of a simple object having some moving components – folding stool. History of furniture from early days to industrial revolution.	<b>30%</b>
<b>Module III: Model materials</b>	
<b>Descriptors/Topics</b> Model should be made of glass, plastic, paper, wood & cardboard etc. The models should be made in model making workshop.	<b>40%</b>

**Student Learning Outcomes:**

- The course provides an understanding of the role of revitalization of Art/Craft form in Interior Spaces.

**Pedagogy for Course Delivery:**

- The formal lecture material and also provide the student with case study, presentations & hands on skills. Participants are encouraged to engage in active interaction through classroom participation.



## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] Home Plumbing (The David & Charles Manual of), Ernest Hall
- [2] House Book (The Complete Guide to Home Design), Terence Conran
- [3] Architecture: Form, Space and Order, Francis D.K. Ching
- [4] Elements of Architecture, Meiss Pieree Von
- [5] Architecture: Form, Space and Order, Francis D.K. Ching

## References:

- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von



## Course structure: Intelligent Interiors

– BID608

Course Title: Intelligent Interiors

Credit Units: 03

Course Level: UG Level

Course Code: BID608

### Course Objectives:

- Intelligent interiors are one of the most important part of the modern buildings.
- The unit introduces the students to the concept of intelligent buildings with all the latest technologies taken into consideration to build an intelligent building.

**Pre-requisites:** The students must possess fair understanding of smart interior design elements.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Introduction</b>	
<b>Descriptors/Topics</b> Introduction to the electronic aspects of an intelligent building.	20%
<b>Module II: Energy Efficiency</b>	
<b>Descriptors/Topics</b> Intelligent interiors consist of energy use to the minimum with computerized system.	20%
<b>Module III: Life Safety Systems</b>	
<b>Descriptors/Topics</b> Intelligent interior consists of the use of high technology to maximize the performance of fire alarms and security systems while at the same time minimizing costs.	20%
<b>Module IV: Telecommunication Systems</b>	
<b>Descriptors/Topics</b> Intelligent interior consists of the use of high technology to maximize the performance of fire alarms and security systems while at the same time minimizing costs.	20%
<b>Module V: Workplace automation</b>	
<b>Descriptors/Topics</b> Intelligence with respect to workplace automation in an intelligent interior consists of the use of high – tech office automation systems to render the operation of a company more efficient. This can be done at a reduced cost to tenants by virtue of the equipment being shared.	20%



## Student Learning Outcomes:

- The course provides an understanding of the latest technologies taken into consideration to build an intelligent building

## Pedagogy for Course Delivery:

- The formal lecture material and also provide the student with case study, presentations & hands on skills. Participants are encouraged to engage in active interaction through classroom participation.

## Assessment/ Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage (%)	10	15	5	70

## Text Reading:

- [1] Drywall (Pro Tips for Hanging & Finishing), John D. Wagner
- [2] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean
- [3] Interior design illustrated, Francis D.K. Ching
- [4] Graphic Interiors (Space Designed by Graphic Artists), Corina Dean

## References:

- A.J. Metric Handbook, Jan Bilwa and Leslie Fair weather
- Architectural Graphic standards, Boaz Joseph
- The Curtain Book, Mitchll Beazlty
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka



**Course structure: Exhibition Design**

**– BID609**

**Course Title: Exhibition Design**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID609**

**Course Objectives:**

- This course will prepare students to carry out the tasks of the multifaceted Exhibition Designer.
- This course will provide an overview of exhibition design and production practices through hands on experiences in a collaborative and project-based environment.

**Pre-requisites:** The students must possess fair understanding of exhibition spaces and lightings.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Design Thinking</b>	
<b>Descriptors/Topics</b> Students will learn design principles and how to apply them to an actual exhibition space to transform the space into one that reflects and emphasizes the themes developed during Project Development Assignments.	<b>25%</b>
<b>Module II: Graphic Design</b>	
<b>Descriptors/Topics</b> Graphic design interweaves with architecture, enhancing the experience of the building as a whole. By incorporating workflows, indoor climate, and organizational culture into the design.	<b>25%</b>
<b>Module III: Visual merchandising</b>	
<b>Descriptors/Topics</b> The students are taught about topics like the layout of retail space, space assignment, product grouping, colors, lighting, elements of a window display, visual communication and presentation methods. Along with learning about the current trends in merchandising, the students understand that how can they analyze, identify and modify elements that help in better branding.	<b>25%</b>
<b>Module IV: Retail &amp; Branding</b>	
<b>Descriptors/Topics</b> Identify the critical information needed to develop a product and brand strategy that generates both quick-wins and long-term value.	<b>25%</b>



- Students with an understanding for planning of built or open spaces to provide an appropriate environment for communication, and to create a contextual / experience that supports communication / interpretation of ideas to audiences by creating a multimodal and multi-sensory experience.

#### **Pedagogy for Course Delivery:**

- The formal lecture material and also provide the student with case study, presentations & hands on skills. Participants are encouraged to engage in active interaction through classroom participation.

#### **Assessment/ Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
<b>Weightage (%)</b>	<b>10</b>	<b>15</b>	<b>5</b>	<b>70</b>

#### **Text Reading:**

- [1] Retail Marketing and Branding: A Definitive Guide to Maximizing ROI: by Dennis Spillecke and Jesko Perrey
- [2] Visual Merchandising: Windows and In-Store Displays for Retail by Tony Morgan
- [3] Visual Merchandising by Released October 2011 Publisher(s): Laurence King
- [4] Logo Modernism by Jens Müller
- [5] Steal Like an Artist: 10 Things Nobody Told You About Being Creative By Austin Kleon.

#### **References:**

- Visual Merchandising
- Steal Like an Artist





## Course structure: Industry Internship

– BID701

Course Title: Industry Internship

Credit Units: 25

Course Level: UG Level

Course Code: BID701

### Course Objectives:

- To expose the students to the practical environment and works by working under an Architect.
- To gain a practical knowledge and involved in all aspects of office works.

**Pre-requisites:** Knowledge gained till all previous semesters.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I:</b>	
<b>Descriptors/Topics</b> Students are required to be involved in all works in an Architect's office including site visits also. The students should work on projects assign to them in terms of sketch deign, presentation of drawings, Detailed working drawings, model making, estimation, specification, tendering of small buildings. The students shall prepare exhaustive formal Log Book issued by the College, week by week, which will cover detailed record of the work done in the office, site visit reports, interviews with clients and any other agency, interaction with principal architect etc. The professional with the seal of the organization, under whose guidance the student worked, will sign the report and also his reflection about the student's work and his overall approach and attitude towards the office work.	100%

### Student Learning Outcomes:


- The student will learn to interpret the link between architectural study and practice and the professional aspects of office management.

### Pedagogy for Course Delivery:

- Students has to go for a 140 working days of practical Office training with the practicing Architect approved by the institute, in a city not to be student's home town. After successful completion of the training students shall prepare a three set of report in a prescribed format containing the details of the work done during the training period which shall include the work report, critical appraisal of the built project, field documentation, architectural details and drawings on which students have worked. All the details and drawings must be duly signed by the principal Architect and must bear the seal of the organization. Students shall also submit the Certificate issued by the Principal Architect of the firm stating the successful completion of his/ her training.

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>Internal</b>	<b>End Term (VV)</b>
<b>Weightage (%)</b>	<b>30</b>	<b>70</b>

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**Course structure: Interior Design (Thesis Project)**

**BID 801**

**Course Title: Interior Design (Thesis Project)**

**Credit Units: 15**

**Course Level: UG Level**

**Course Code: BID 801**

**Course Objectives:**

- A thesis project topic will be chosen by the student and approved by the school so that a variety of professional projects are undertaken in each thesis semester every year. The course gives an opportunity to develop a student an independent approach to develop an exercise and professional ability to handle professional projects with complete analysis of based data/information so as to achieve aesthetically planned interior environment for functional efficiency.

**Pre-requisites:** To attain independent professional approach analysis-based design projects achieving high level of workability, efficiency and aesthetics in 3-D form with all the services properly worked out.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Introduction</b>	
<b>Descriptors/Topics</b> Introduction to the thesis and approval of Topic and subject.	<b>10%</b>
<b>Module II: Drawings</b>	
<b>Descriptors/Topics</b> Thesis would include working operational plans, working drawings and design model.	<b>70%</b>
<b>Module III: Building Materials</b>	
<b>Descriptors/Topics</b> Understanding of modern building materials suitable for application to the nature of the project. The project will be evaluated through a continuous Examination basis in a series of seminars as announced from time to time.	<b>20%</b>

**Student Learning Outcomes:**

The course provides an understanding of the role of revitalization of Art/Craft form in Interior Spaces.

**Pedagogy for Course Delivery:**

- The thesis project provides the student with practical knowledge and hands on skills. Participants are encouraged to engage in active interaction through classroom participation.



Components	Case Presentation	Seminar	Attendance	Viva Voice
Weightage (%)	10	15	5	70

## Text Reading:

1. A Visual Dictionary of Architecture, Francis D.K. Ching
2. Creative Interiors (Design of Enclosed Space), Shashi Jain
3. Commercial Interior Perspectives, Graphic – Sha (Editor)
4. Design with Wood, Carol Soucek King
5. Drywall (Pro Tips for Hanging & Finishing), John D. Wagner
6. Graphic Interiors (Space Designed by Graphic Artists), Corina Dean
7. Interior design illustrated, Francis D.K. Ching
8. Graphic Interiors, (Space Designed by Graphic Artists), Corina Dean
9. Home Plumbing (The David & Charles Manual of), Ernest Hall
10. House Book (The Complete Guide to Home Design), Terence Conran
11. Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
12. Elements of Architecture, Meiss Pieree Von
13. Architecture: Form, Space and Order, Francis D.K. Ching
14. A.J. Metric Handbook, editors, Jan Bilwa and Leslie Fair weather
15. Architectural Graphic standards editor – Boaz Joseph
16. The Curtain Book, Mitchll Beazlty
17. Interior Design Visual, Maureen Mitton 2<sup>nd</sup> Edition
18. 100 Bright Ideas For color, Sue Rose
19. Window Fashion, Charles T. Randall
20. Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
21. Elements of Architecture, Meiss Pieree Von
22. Architecture: Form, Space and Order, Francis D.K. Ching

**Assessment/ Examination Scheme:****Course structure: Professional Practice****BID 802****Course Title: Professional Practice****Credit Units: 03****Course Level: UG Level****Course Code: BID 802****Course Objectives:**

To acquaint the students with role of an interior designer in society, scale of charges conducts in the practice. Requirements of interior design competitions and appointment of contractor for interior works.

**Pre-requisites:** Student will be acquainted with the roles and responsibilities of an Interior Designer and functioning of the Office.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Introduction</b>	<b>10%</b>
<b>Descriptors/Topics</b> Contract and conditions of engagement for interior projects	
<b>Module II: Duties</b>	<b>50%</b>
<b>Descriptors/Topics</b> Responsibilities, liabilities and duties of interior designer.	
<b>Module III: Contract Document</b>	<b>40%</b>
<b>Descriptors/Topics</b> Terms and conditions for entering into a Contact, Scale of charges and mode of payment for the professional services to be offered	

**Student Learning Outcomes:**

Student will be acquainted with the roles and responsibilities of an Interior Designer and functioning of the Office.

**Pedagogy for Course Delivery:**

Lecture based learning along with exercises as tutorials related on the lecture delivery. Preparing a report of study of an interior designer's office.

Components	Case Presentation	Seminar	Project	Attendance	Mid Term	EE
	Weightage (%)	5	5	5	5	10

### Text Reading:

- A Visual Dictionary of Architecture, Francis D.K. Ching
- Interior design illustrated, Francis D.K. Ching
- House Book (The Complete Guide to Home Design), Terence Conran
- Masonry (Concrete, Brick, Stone), Christine Beall
- Metric Handbook (Planning & Design Data) 2nd Ed. Edited By, David Adler
- Window Fashion, Charles T. Randall
- Illustration + Perspectives (In Pantone Colors), Eiji Mitooka
- Elements of Architecture, Meiss Pieree Von
- Architecture: Form, Space and Order, Francis D.K. Ching
- The Construction of Building Vol- 1 to 5, R. Barry
- Building Construction, N.L. Arora & B.R. Gupta
- Interior Detail – 1 (Residence), Jeong, Kwang Young
- Interior Spaces Vol – 6 (A Pictorial Review), Image Publishing Group

**Assessment/ Examination Scheme:****Course structure: Lighting in Interiors****BID 803****Course Title: Lighting in Interiors****Credit Units: 03****Course Level: UG Level****Course Code: BID 803****Course Objectives:**

Students should acquire knowledge of the various types of lightings to effectively communicate their designs and understand the effect of various lights on colours and textures.

**Pre-requisites:**

To help the student understand day lighting and technology of artificial lighting.

To equip the student to understand and successfully apply lighting techniques with colour effects.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>UNIT - I INTRODUCTION TO DAY LIGHTING</b>	<b>10%</b>
<b>Descriptors/Topics</b> Nature of light – Wavelength, Photometric quantities – intensity, Flux, illumination and luminance, visual efficiency, sources of light, day light factor concept, design sky concept, day lighting requirements.	
<b>UNIT - II ARTIFICIAL LIGHTING</b>	<b>20%</b>
<b>Descriptors/Topics</b> Electric lamps – incandescent, fluorescent, sodium vapour, mercury, halogen and neon. Different types of lights in interior and exterior - task lighting, special purpose lighting. Calculation of artificial lighting, guidelines for lighting design, Glare in artificial lighting.	
<b>UNIT - III EFFECT OF COLOR IN LIGHTING</b>	<b>30%</b>
<b>Descriptors/Topics</b> Colors, color schemes - Monochromatic, analogous, complementary colour schemes, triadic and tetradic schemes, effects of color in different areas, color temperature, psychological effects of colour in interiors, factors affecting colour, Prang theory – Colour wheel, Munsell system and Oswald system.	
<b>UNIT - IV LUMINARES &amp; FIXTURES</b>	<b>20%</b>
<b>Descriptors/Topics</b> Definition, different luminaries for lighting, lighting control system- benefits & application, Impact of lighting, fixture types - free standing or portable, fixed, light fixture control. Lighting accessories- switches, sockets, fused connection units, lamp holders, ceiling roses etc.	

<b>UNIT - V CASESTUDY</b>	<b>20%</b>
 <b>AMITY UNIVERSITY</b> <small>WARRINGTON, INDIANA, USA</small> <small>Established vide Government of Madhya Pradesh Act No. 27 of 2010</small>	<b>Descriptors/Topics</b> Study of projects based on different lighting concepts used in interiors and exteriors.

**Student Learning Outcomes:**

The student will gain elementary knowledge of lighting principles. These applications will be used in designing buildings, interior spaces and sites.

**Pedagogy for Course Delivery:**

Lecture based learning along with exercises as tutorials related on the lecture delivery. Preparing a report of study of a live project.

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>C</b>	<b>P</b>	<b>A</b>	<b>CT</b>	<b>EE</b>
<b>Weightage (%)</b>	05	10	05	10	70

**Text Reading:**

- The Art of living- Randall whitehead,
- Lighting design, source book- Randall whitehead,
- Light right- M.K.Halpeth, T.Senthil kumar, G.Harikumar
- Concepts of lighting, Lighting design in Architecture- Torquil Barker



**Course structure: Film & Television Set Design (Elective IV)**

**BID 804**

**Course Title: Film & Television Set Design (Elective IV)**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID 804**

**Course Objectives:**

This course aims at making the students understand the process of Set design for drama in the theatrical space and to articulate the solution with creative ideas.

**Pre-requisites:** To develop the skill of observation. To give exposure to theatrical time and space.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Understanding of theatre</b>	
<b>Descriptors/Topics</b> Understanding of theatre as a place for performance (Theatre & Stage) Types of theatre and sets, Use of curtains, wings, levels, Types of stage and divisions on stage.	<b>20%</b>
<b>Module II: Identification and research</b>	
<b>Descriptors/Topics</b> Identification and research of the script for design interventions. Research of the visual inspiration. Formulation of the design program.	<b>30%</b>
<b>Module III: Set Design Assignment</b>	
<b>Descriptors/Topics</b> Ideation -- concept generation and explorations with quick explanatory models. Finalization of the concept with design development and detailing. Hand Renderings and final finished model of the final design solution. <b>Assignments:</b> The assessment of Design Project to be done at the following assignment stages with due weightage to each stage <b>Stage I:</b> Documentation and presentation of an research with design opportunity - 20% <b>Stage II:</b> Research and Documentation of Case Studies with observations, analysis and conclusion- 15% <b>Stage III:</b> Site Analysis and Design Brief - 10% <b>Stage IV:</b> Design development- Ideation with exploration and study model -25% <b>Stage V:</b> i) Final Design Solutions with views ii) Technical drawing with materials and Construction details iii) Finished model - 30%	<b>50%</b>

**Student Learning Outcomes:**

To develop the skill of creative thinking... Theatrical possibilities.

**Pedagogy for Course Delivery:**

- The thesis project provides the student with practical knowledge and hands on skills. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

Components	S	P	A	CT	EE
Weightage (%)	05	10	05	10	70

**Text Reading:**

- Critical Approaches to TV and Film Set Design 1st Edition by Geraint D'Arcy
- Filmcraft: Production Design 1st Edition by Fionnuala Halligan
- Film Architecture: From Metropolis to Blade Runner Paperback - September 1, 1999 by Dietrich Neumann

**Course structure: VASTUSHASTRA IN INTERIOR DESIGN (Elective IV)**

**BID 805**

**Course Title: VASTUSHASTRA IN INTERIOR DESIGN (Elective IV)**

**Credit Units: 03**

**Course Level: UG Level**

**Course Code: BID 805**

**Course Objectives:**

To sensitize students with various ancient concepts on Vaastu and Feng Shui and their present relevance.

**Pre-requisites:** To develop the skill of observation. To give exposure to Vastushastra in Interior Design.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module I: Various Principles of Indian Vaastu Shastra</b>	<b>50%</b>
<b>Descriptors/Topics</b>	
Understanding the principals of Indian Vaastu Shastra.	
<b>Module II: Various Principles and application</b>	<b>50%</b>
<b>Descriptors/Topics</b>	
Learning various Principles of Chinese Feng Shui and their application in modern building construction and interior design	

**Student Learning Outcomes:**

To Understanding the principals of Indian Vaastu Shastra.

**Pedagogy for Course Delivery:**

- The thesis project provides the student with practical knowledge. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ Examination Scheme:**

<b>Components</b>	<b>C</b>	<b>S</b>	<b>A</b>	<b>CT</b>	<b>EE</b>
<b>Weightage (%)</b>	05	10	05	10	70

**Text Reading:**

- "GOLDEN PRINCIPLES OF VASTU SHASTRA Vastukarta". www.vastukarta.com. Retrieved 2016-05-08.
- Acharya P.K. (1946), An Encyclopedia of Hindu Architecture, Oxford University Press
- Vibhuti Sachdev, Giles Tillotson (2004). Building Jaipur: The Making of an Indian City. p. 147. ISBN 978-1861891372.
- Vasudev (2001), Vastu, Motilal Banarsidas, ISBN 81-208-1605-6, pp 74-92
- Sherri Silverman (2007), Vastu: Transcendental Home Design in Harmony with Nature, Gibbs Smith, Utah, ISBN 978-1423601326

- Gautum, Jagdish (2006). Latest Vastu Shastra (Some Secrets). Abhinav Publications. p. 17. ISBN 978-81-7017-449-3.
- BB Dutt (1925). Town planning in Ancient India at Google Books. ISBN 978-81-8205-487-5; See critical review by LD Barnett, Bulletin of the School of Oriental and African Studies, Vol 4, Issue 2, June 1926, pp 391
- Vibhuti Chakrabarti (2013). Indian Architectural Theory and Practice: Contemporary Uses of Vastu Vidya. Routledge. pp. 1-2. ISBN 978-1-136-77882-7
- Dunning, Brian. "Feng Shui Today". Skeptoid.com. Retrieved 30 October 2016.
- Cheng Jian Jun and Adriana Fernandes-Goncalves. Chinese Feng Shui Compass: Step by Step Guide. 1998: 21



## Course structure: Planning History and Theory – MURP101

**Course Title: Planning History and Theory**

**Course Level: PG Level**

**Course Objectives:**

- The objective of this course is to initiate the student to the historic growth and development of settlements across civilizations and the evolution of civic planning as a discipline through theories and concepts of modern planning thought.
- The course shall be delivered through theoretical inputs and seminar presentations by students on selected topics

**Credit Units: 03**

**Course Code: MURP101**

**Pre-requisites:** The students must possess fair understanding of the historic growth and development of settlements across civilizations and the evolution of civic planning in India and world.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Evolution of City Building</b>	
<b>Descriptors/Topics</b> Relevance of the study of evolution of settlements; Hunter, gatherer, farmer and formation of organized society; Cosmological and other influences, origins and growth of cities, effects of cultural influence on physical form; Human settlements as an expression of civilizations; Basic elements of the city; Concepts of space, time, scale of cities.	20%
<b>Module 2: Planning History</b>	
<b>Descriptors/Topics</b> Town planning in ancient India; Medieval, renaissance, industrial and post industrial cities; City as a living spatial entity; Concepts of landmark, axis, orientation; City form as a living space; City as a political statement: New Delhi, Chandigarh, Washington D.C. Brasilia etc; Contribution of individuals to city planning: Lewis Mumford, Patrick Geddes, Peter Hall, etc; Dynamics of the growing city, impact of industrialization and urbanization, metropolis and megalopolis.	30%
<b>Module 3: Definitions and Objectives of Planning</b>	
<b>Descriptors/Topics</b> Definitions of town and country planning; Orthodoxies of planning; Goal formulation, objective, scope, limitations; Sustainability and rationality in planning; Components of sustainable urban and regional development.	20%
<b>Module 4: Theories of City Development and Planning Theories</b>	
<b>Descriptors/Topics</b> Theories of city development including Concentric Zone Theory, Sector Theory, Multiple Nuclei Theory and other latest theories; Land use and land value theory of William Alonso; Ebenezer Howard's Garden City Concept; and Green Belt Concept; City as an organism: a physical, social, economic and political entity; Emerging Concepts: global city, inclusive city, safe city, etc.; City of the future and future of the city; Shadow cities, divided cities; Models of planning: Advocacy and Pluralism in Planning; Systems approach to planning: rationalistic and incremental approaches, mixed scanning and middle range planning; Equity planning; Political Economy Model; Types of development plans, plan making process.	30%

## Student Learning Outcomes:

- The outcome of this course is to learn the historic growth and development of settlements across civilizations.
- The evolution of civic planning as a discipline through theories and concepts of modern planning thought.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and literature study. Participants are encouraged to engage in active interaction through classroom participation

## Assessment/ExaminationScheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

## Text Reading:

1. Planning Theory, Healey P., Pergamon Press
2. Planning Theory, Allmendinger Philip, Palgrave MacMillan
3. Cities of the World: World Regional Urban development, Brunn S.D.et all
4. City Assembled: The Elements of Urban form through History, Kostof Spiro, Thames and Hudson.
5. Contemporary Urban Planning, Levy John M, Longman

## References:

- Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century, Hall Peter
- Urban and Regional Planning Since Independence: Retrospect and Prospect: Technical Papers, National Town and Country Planners Congress, Mysore, Ministry of Urban Affairs and Employment
- Urban Planning: Theory and Practice, Rao M.P., CBS Publishers
- The Oxford Handbook of Urban Planning, Weber Rachel et all, Oxford University Press
- Urban Pattern: City Planning and Design, Gallion, Arthur B. and Eisner Simon, CBS Publish



## Course structure: Socio - Economic Basis for Planning – MURP102

**Course Title: Socio - Economic Basis for Planning**

**Course Level: PG Level**

**Course Objectives:**

- The course consists of two parts of Economics and Urban sociology, as essential inputs to the Planning profession.

**Credit Units: 03**

**Course Code: MURP102**

**Pre-requisites:** The students must possess fair understanding of the Sociological concepts and methods, Socio-cultural profile of Indian society.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Nature and Scope of Sociology</b>	
<b>Descriptors/Topics</b> Sociological concepts and methods, man and environment relationships; Socio-cultural profile of Indian society and urban transformation; Tradition and modernity in the context of urban and rural settlements; Issues related to caste, age, sex, gender, health safety, and marginalized groups; Displacement, resettlement and rehabilitation due to compulsory land acquisition.	20%
<b>Module 2: Community and Settlements</b>	
<b>Descriptors/Topics</b> Social problems of slums and squatters communities, urban and rural social transformation and their impact on social life, safety, security; Crimes in urban areas and their spatial planning implications, social structure and spatial planning; Role of socio-cultural aspects on growth patterns of city and neighborhood communities; Social planning and policy, and community participation; Marginalization and concepts of inclusive planning, and gender concerns in planning. Settlement Policy: National Commission on Urbanization, Rural Habitat Policy and experiences from developing countries regarding settlement structure, growth and spatial distribution.	30%
<b>Module 3: Elements of Micro and Macro Economics</b>	
<b>Descriptors/Topics</b> Concepts of demand, supply, elasticity and consumer markets; concept of revenue costs; Economies of scale, economic and social costs, production and factor market; Different market structures and price determination; market failures, cost-benefit analysis, public sector pricing; Determinants of national income, consumption, investment, inflation, unemployment, capital budgeting, risk and uncertainty, and long-term investment planning.	20%
<b>Module 4: Development Economics and Lessons from Indian Experiences</b>	
<b>Descriptors/Topics</b> Economic growth and development, quality of life; Human development index, poverty and income distribution, employment and livelihood; Economic principles in land use planning; Policies and strategies in economic planning, balanced versus unbalanced growth, public sector dominance; changing economic policies, implications on land.	30%

### Student Learning Outcomes:

- The outcome of this course is study and implements to make the various planning proposals based on the Economics and Urban sociology, as essential inputs to the Planning profession.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and socio-economic surveys conduct on study areas. Participants are encouraged to engage in active interaction through classroom participation.

### Assessment/ExaminationScheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

### Text Reading:

1. Economics, Paul A. Samuelson et all, Tata Mc Graw Hill Publication
  2. Micro Economics, Dominick Salvatore, Schaum's Outline Series, Mc Graw Hill
  3. Micro Economics, N.C. Ray, Macmillan
  4. Micro Economics, Anindya Sen, Oxford University Press
- Urban Sociology**
5. Sociology, Anthony Giddens, Wiley
  6. Sociology, John J. Macionis, Pearson
  7. Urban Sociology: Images and Structure, Flanagan, William G., Prentice Hall
  8. Urban Problems in Sociological Perspective, Shannon, Thomas R., Waveland Press Inc
  9. The Metropolis and Mental Life, Simmel, Georg, New York: Free Press
  10. Key Concepts in Urban Studies, M. Gottdiener, Sage London
  11. Sociological Thought, Abrahm M. F. and Morgan J. H., MacMillan India, Madras
  12. The Oxford Companion to Sociology and Social Anthropology, Das Veena, Vol. I and II, OUP, New Delhi

### References:

- Economics, Alec Chrystal et all, Oxford University Press
- Economics – An Analytical Introduction, Amos Witztum, Oxford University Press
- General Economics, Deepashree, Tata Mc Graw Hill Publication
- Economics – A Primer for India, G. Omkarnath, Orient Blackswan
- Social Change in Modern India, Srinivas M. N., Oxford University Press, Delhi.
- A Subaltern Studies Reader, Guha R., Oxford University Press, New Delhi
- The Sage Handbook of Sociology, Bryn Turner et all, Sage
- Capability and Well-Being, Sen, Amartya and M. Nussbaum. Oxford Clarendon Press
- Inclusive Growth In India, R.U. Singh A.K. Thakur, Deep and Deep Publications
- Sen's Capability Approach and Gender Inequality: Selecting Relevant Capabilities. Feminist Economics Robeyns, Ingrid
- Planning a Barrier Free Environment, Office of the Chief Commissioner for Persons with Disabilities, India





## Course structure: Planning Techniques – MURP103

**Course Title: Planning Techniques**

**Course Level: PG Level**

**Course Objectives:**

**Credit Units: 03**

**Course Code: MURP103**

- The objective of the course Planning Techniques is to introduce techniques used for planning at various stages from preliminary to advanced. As this is a subject from integrated course the techniques broadly used by all courses of specialization have been considered while designing this course.
- Student should be able to use the techniques in respective studio works. Appropriate Software applications in CAD and GIS would also be taught as part of this course.

**Pre-requisites:** The students must possess fair understanding of the physical surveys and socio-economic surveys; Survey techniques and analytical methods.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Survey Techniques and Mapping</b>	
<b>Descriptors/Topics</b> Data base for physical surveys including land use, building use, density, building age, etc., and socio-economic surveys; Survey techniques; Land use classification or coding and expected outputs; Techniques of preparing base maps including understanding the concepts of scales, components and detailing for various levels of plans like regional plan, city plan, zoning plan, and local area plan.	20%
<b>Module 2: Analytical Methods</b>	
<b>Descriptors/Topics</b> Classification of regions, delineation techniques of various types of regions, analysis of structure of nodes, hierarchy, nesting and rank size; Scalogram, sociogram, etc.; Planning balance sheet; Threshold analysis; Input output analysis, SWOT analysis;	30%
<b>Module 3: Demographic Methods</b>	
<b>Descriptors/Topics</b> Methods of population forecasts and projections; Lorenz Curve, Ginni Ratio, Theil's index, ratios: urban – rural, urban concentration, metropolitan concentration; Location dimensions of population groups – social area and strategic choice approach – inter connected decision area analysis.	20%
<b>Module 4: Planning Standards</b>	
<b>Descriptors/Topics</b> Spatial standards, performance standards and benchmarks, and variable standards; UDPFI guidelines, zoning regulations and development control rules and regulations.	30%

**Student Learning Outcomes:**

- Student able to use the techniques in respective studio works.
- Appropriate Software applications in CAD and GIS.

**Pedagogy for Course Delivery:** The course will use a mix of theory, studio work with physical survey and application of software. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

1. Urbanisation and Urban Systems in India, Ramchandran R. Oxford University Press
2. Cities Urbanisation and Urban Systems, Siddhartha K. and Mukherjee S., Kishalay Publications
3. Regional Planning, Glasson J., Open University Press
4. Economic and Social Geography Made Simple, Knowles R. and Wareing J., Rupa and Company
5. Concepts and Techniques of Geographic Information Systems, Lo C.P. and Yeung A.K.W., PHI Learning Private Limited

**References:**

- Planning Techniques for AITP, Reader on Institute of Town Planners India
- UDPI Guidelines Volume 1, Ministry of Urban Affairs and Employment Govt. of India, New Delhi
- Remote Sensing and Image Interpretation, Thomas M. Lillesand et al, John Wiley and Sons Ltd.
- Remote Sensing and GIS, Basuddeb Bhatta, Oxford University Press
- Spatial Analysis, Mark R. T. Dale, Marie-Josée Fortin, Cambridge University Press



## Course structure: Infrastructure and Transport Planning – MURP104

**Course Title: Infrastructure and Transport Planning**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP104**

### Course Objectives:

- The course would include one part on the design principles of transport planning and another on services and utility networks and facilities.
- **Utility Networks Planning**  
The focus of the Utilities Planning course is on principles of design of utilities and services in urban and regional context and familiarising with Indian standards of design. The course will focus on acquainting students to latest technological innovations in utility services.
- **Transportation Planning**  
The objective of Transportation Planning is to provide basic information on transportation issues. Students will be familiarized with (i) geometric design of road networks and (ii) traffic characteristics. Techniques of data collection and analysis would be taught as part of this course.

**Pre-requisites:** The students must possess fair understanding of the transport planning, utility services, geometric design of road network and traffic characteristics.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Role of Infrastructure in Development</b>	
<b>Descriptors/Topics</b> Elements of Infrastructure (physical, social, utilities and services); Basic definitions, concepts, significance and importance; Data required for provision and planning of urban networks and services; Resource analysis, provision of infrastructure, and land requirements; Principles of resource distribution in space; Types, hierarchical distribution of facilities, Access to facilities, provision and location criteria, Norms and standards, etc.	20%
<b>Module 2: Planning and Management of Water, Sanitation and Storm Water</b>	
<b>Descriptors/Topics</b> Water – sources of water, treatment and storage, transportation and distribution, quality, networks, distribution losses, water harvesting, recycling and reuse, norms and standards of provision, institutional arrangements, planning provisions and management issues; Sanitation – points of generation, collection, treatment, disposal, norms and standards, grey water disposal, DEWATS, institutional arrangements, planning provisions and management issues. Storm water – rainfall data interpretation, points of water stagnation, system of natural drains, surface topography and soil characteristics, ground water replenishment, storm water collection and disposal, norms and standards, institutional arrangements, planning provisions and management issues;	30%
<b>Module 3: Planning and Management of Municipal Wastes, Power and Fire</b>	
<b>Descriptors/Topics</b> Municipal and other wastes – generation, typology, quantity, collection, storage, transportation, treatment, disposal, recycling and reuse, wealth from waste, norms and standards, institutional arrangements, planning provisions and management issues. Power – Sources of power procurement, distribution networks, demand assessment, norms and standards, planning provisions and management issues. Fire – History of fire hazards, vulnerable locations, methods of fire fighting, norms and standards, planning provisions and management issues.	20%

<b>Module 4: City Development and Transport Infrastructure Planning, Management and Design</b>	<b>30%</b>
<b>Descriptors/Topics</b> Role of transport, types of transport systems, evolution of transport modes, transport problems and mobility issues; Urban form and Transport patterns, land use – transport cycle, concept of accessibility; Hierarchy, capacity and geometric design elements of roads and intersections; Basic principles of Transport infrastructure design; Traffic and transportation surveys and studies, traffic and travel characteristics; Urban transport planning process – stages, study area, zoning, data base, concept of trip generation Transport, environment and safety issues; principles and approaches of traffic management, transport system management.	

**Student Learning Outcomes:**

- The course will teach the students a part on the design principles of transport planning and another on services and utility networks and facilities.

**Pedagogy for Course Delivery:** The course will use a mix of theory, studio work of infrastructure design and transportation and traffic surveys. Participants are encouraged to engage in active participation through classroom and field study.

**Assessment/ExaminationScheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

**Text Reading:**

**Utility Networks Planning**

1. Environmental Engineering, Howard S. Peavy, Tata Mc Grawhill
2. Regulation and the Management of Public Utilities, C. S. Morgan, Gale
3. Water Supply Engineering, S. K. Garg, Khanna Publishers
4. Manual on Sewerage and Sewage Treatment, CPHEEO
5. Urban Planning Manual, AILGS Reader

**Transportation Planning**

6. Traffic Engineering and Transport Planning, L.R. Kadiyali, Khanna Publications
7. Transportation Engineering and Planning, Author: C. S Papacostas, P. D Prevedouros, Publisher: PHI Learning
8. Principles of Urban Transport Systems Planning, B.G. Hutchinson, McGraw Hill
9. Urban Transport: Planning and Management, A K Jain, APH Publishing

**References:**

- Solid Waste Management, Krishana Gopi Sanoop P, Sasikumar K, Phi Learning
- Solid Waste Management, Dewan, Sudarshan, Discovery Publishing House
- Telecommunication Management Networks (TMN) Implementation, Amani Omer, Lambert Academic Publishers
- Fire fighting: Management and Techniques, Overton Frank, Inkata
- Urban Pattern: City Planning and Design, Gallion, Arthur B. and Eisner Simon, CBS Publish



## Course structure: Housing and Environmental Planning – MURP105

**Course Title: Housing and Environmental Planning**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP105**

### Course Objectives:

- The course would have two sections on housing and environment and introduce the basics of both in relation to each other.
- **Housing:**  
The objective of this course is to familiarize students with a wide spectrum of aspects related to housing viz., housing scenario, housing needs, housing design, building legislations and relevant methods for formulating housing strategies. The course is introductory in nature, aimed at providing basic knowledge of issues of urban development relevant to housing planning in India.
- **Environment:**  
The objective of this course is to initiate the students to a discreet understanding of the environment and the interactions and inter-relationships of all living organisms with the physical surroundings. All social, cultural and technological activities being carried by human beings have profound influence on the environment. This course will enable a thorough understanding of all these aspects.

**Pre-requisites:** The students must possess fair understanding of the housing and environment in India.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Concepts and Definitions</b>	20%
<b>Descriptors/Topics</b> Shelter as a basic requirement, determinants of housing form, Census of India definitions, Introduction to policies, housing need, demand and supply, dilapidation, structural conditions, materials of constructions, housing age, occupancy rate, crowding, housing shortage, income and affordability, poverty and slums, houseless population Various housing typologies viz. traditional houses, plotted development, group housing, multi-storied housing, villas, chawls, etc., slums and squatters, night shelters, public health issues related to housing, various theories of housing, concept of green housing, green rating of housing projects.	
<b>Module 2: Social and Economic Dimensions</b>	30%
<b>Descriptors/Topics</b> Housing as social security, role of housing in development of family and community well being, status and prestige related to housing, safety, crime and insecurity, deprivation and social vulnerability, ghettoism, gender issues, housing for the elderly. Contribution of housing to micro and macro economy, contribution to national wealth and GDP, housing taxation, national budgets, fiscal concessions, forward and backward linkages.	
<b>Module 3: Housing and the City</b>	

<b>Descriptors/Topics</b> Understanding housing as an important land use component of city plan / master plan, considerations for carrying out city level housing studies, projections, land use provisions; Suitability of land for housing, housing stress identification, projecting housing requirements, calculating housing shortages, housing allocation.	<b>20%</b>
<b>Module 4: Planning for Neighborhoods</b>	
<b>Descriptors/Topics</b> Approaches to neighborhood living in traditional and contemporary societies, elements of neighborhood structure, Planning and design criteria for modern neighborhoods, norms and criteria for area distribution, housing and area planning standards, net residential density and gross residential density, development controls and building byelaws, UDPFI guidelines, NBC 2005 provisions and Case studies of neighborhood planning.	<b>30%</b>

### Student Learning Outcomes:

- The course would have two sections on housing and environment and introduce the basics of both in relation to each other.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and literature study with hands on exercises of housing layout. Participants are encouraged to engage in active interaction through classroom participation

### Assessment/ExaminationScheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

### Text Reading:

#### Housing

1. Housing: Changing Needs and New Directions, V. Gandotra, M. Shukul, N. Jaju and N. Jaiswal, Authors press
2. Housing and Urbanisation-A study of India, Cedric Pugh, Sage Publications, New Delhi
3. Housing Laws in India-Problems and Remedies, P.K.Sarkar, Eastern Law House Private Ltd.
4. National Housing Policy, GOI, New Delhi
5. Reading Material on Housing, K. Thomas Poulouse, ITPI, India
6. Understanding Housing Policy, Brain Lund, the Policy Press, Great Britain

#### Environment:

7. 1. Fundamentals of Ecology, Odum, E.P., Barrett, G.W., Brewer, R., Thomson Brooks,
8. 2. Ecology, Impact Assessment and Environmental Planning, Westman W., John Wiley and Sons
9. 3. Integrated Environmental Planning, James K. Lein, Blackwell Publishing
10. 4. AITP Reader on Ecology & Resource Development, AITP

### References:

- Urban Development and Housing in India-1947 to 2007, Rishi Muni Dwivedi, New Century Publications
- Housing Policies and Related Acts and Schemes of Government of India
- Holding Their Ground: Secure Land Tenure for the Urban Poor in Developing Countries, Durand-Lasserre, Royston L, Earthscan Publication, UK
- AITP Reading Material on Environmental Planning and Design, Prof A. K. Maitra, SPA Delhi10



## Course structure: GIS – MURP106

**Course Title:** GIS  
**Course Level:** PG Level  
**Course Objectives:**

**Credit Units:** 02  
**Course Code:** MURP106

- The studio program is divided into two parts. The first part involves learning of basic techniques such as GIS applications, remote sensing and statistical applications. The second part contains a number of plan preparation assignments.

**Pre-requisites:** The students must possess fair understanding of the GIS concept, applications, remote sensing and statistical applications and plan preparation.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: GIS Applications</b>	20%
<b>Descriptors/Topics</b> Coordinate system and geo-coding, vector data structure and algorithms, raster data structure and algorithms, data bases for GIS – concepts, error modeling and data uncertainty, decision making through GIS, constructing spatial data infrastructure and spatial information system; National Urban Information system.	
<b>Module 2: Remote Sensing</b>	30%
<b>Descriptors/Topics</b> Why remote sensing, aerial and satellite remote sensing, principles of aerial remote sensing, Aerial photo-interpretation, photogrammetric, stereovision, measurement of heights / depths by relief displacement and parallax displacement. Principles of satellite remote sensing, spatial, spectral, temporal resolutions. Applications in planning, population estimation, identification of squatter / unauthorized areas, sources of pollution, etc., spatial resolution related to level of Planning	
<b>Module 3: Demography</b>	20%
<b>Descriptors/Topics</b> Sources of demographic data in India, Settlement type, growth pattern and structure: urban settlement analysis, Concentration: spatial, vertical and size, peri-urban sprawl, economic base; Rural Settlements – Size, occurrence and character, transformation, Policies towards various size class settlements. Population structure and composition – Age, sex, gender, marital status, caste, religion, literacy level, etc.; Age - sex ratio, structure, pyramid; dependency ratio; occupational structure; Fertility; mortality, migration analysis, natural growth of population, migration and its implications in spatial planning;	
<b>Module 4: Statistical Applications</b>	30%
<b>Descriptors/Topics</b> General concepts - statistical interference, population and sample variables, Sampling, spline statistical models, Measures of central Tendency, Measures of Dispersion, Measures of shape of distribution, Correlation and regression	

### Student Learning Outcomes:

- Outcome is to learning of basic techniques such as GIS applications, remote sensing and statistical applications.
- The advance system of GIS contains a number of plan preparation assignments.

**Pedagogy for Course Delivery:** The course will use a GIS for making computer drawings and tutorial. Participants are encouraged to engage in active interaction through classroom participation.

### Assessment/ExaminationScheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage(%)	NA	45	5	50

### Text Reading:

1. Advanced Surveying: Total Station, GIS and Remote Sensing, Satheesh Gopi, Pearson
2. Applied Remote Sensing in Urban Planning, Governance and Sustainability, Netzbund, Springer, India
3. Environmental Modelling with GIS and Remote Sensing, Andrew Skidmore et al, CRC Press
4. Geographic Information Systems and Science, PA Longley et al, John Wiley and Sons Ltd.
5. GIS, Spatial Analysis, and Modelling, David J Maguire et al, ESRI Press

### References:

- Land use Change Detection using GIS, Remote Sensing and Spatial Matrices, Mesfin T Bekalo et al, Lap Lambert Academic Publications
- Lans Sustainability Evaluation using GIS and Remote Sensing Technology, Mezenzia Mengist, Vdm Verlag
- Remote Sensing and GIS Integration: Theories, Methods and Applications, Qihao Weng, McGraw Hill Professional
- Remote Sensing and GIS, Basdudeb Bhatta, Oxford University Press
- Remote Sensing and Image Interpretation, Thomas M Lillesand et al, John Wiley and Sons Ltd





## Course structure: Studio - I – MURP107

**Course Title: Studio - I**

**Course Level: PG Level**

**Credit Units: 06**

**Course Code: MURP107**

### Course Objectives:

- The Integrated studio is the introductory studio common to all specializations of Master of Planning. It aims to bring students of diverse backgrounds to a common platform and develop the essential skills of planning amongst the students opting for different specializations of planning.
- The objective of the studio is to introduce the general concepts associated with physical planning and develop the skills of documentation, data analysis, spatial representation and written and verbal communication. Application of the theoretical inputs provided in other subjects in the semester is also a key focus. Technical report writing, data analysis techniques and verbal and visual presentation techniques would be focused on in all the assignments.

**Pre-requisites:** The students must possess fair understanding of the physical planning and develop the skills of documentation, data analysis, spatial representation and written and verbal communication.

### Course Contents/Syllabus:

	Weightage (%)
<b>Assignment 1: Understanding Human Settlement Systems</b>	
<b>Descriptors/Topics</b> The assignment would be a short introductory exercise undertaken with the objective of initiating students with the concepts of urban and regional planning by developing skills of observation and documenting the same in graphical ways. The thrust of the studio would be on: <ul style="list-style-type: none"><li>• Understanding the context of the city in its regional setting</li><li>• Readings on the city and settlement systems</li><li>• Understanding the structure of networks and land uses</li><li>• City form and its visual impact.</li><li>• Identification of landmarks and public realms.</li><li>• Application of appropriate techniques of documentation and presentation of the data collected.</li></ul>	20%
<b>Assignment 2: Area Planning in Urban Areas:</b>	

<p><b>Descriptors/Topics</b> The assignment would identify different urban zones based on land use characteristics and could also include predefined 'zones' for zonal plans. The objective of this exercise would be to learn various methods of surveying to collect different types of data and represent and interpret them to give meaningful observations on the planning and development of the area. Thrust of the exercise would be on:</p> <ul style="list-style-type: none"> <li>• Understanding the zone in the context of the city.</li> <li>• Mapping of Regional Networks and Linkages</li> <li>• Preparation of Base Map of the area through primary surveys and updating secondary data</li> <li>• Socio-economic profiling of the area through surveys</li> <li>• Physical and Social infrastructure mapping</li> <li>• Gap Analysis and issue identification</li> <li>• Formulation of broad outlines of Intervention Strategies and Development Blueprint.</li> </ul>	<b>40%</b>
<b>Assignment 3: Rural Planning</b>	
<p><b>Descriptors/Topics</b> The main goal of the assignment is to expose students to the life and living in rural area as it is different from urban areas. This would help in conceptualising the integration of urban and rural areas for regional planning. Students will undertake study of a particular village in groups and conduct a primary survey on demographic profile, household income level, socio-cultural practices, etc. Information about development programme shall be collected and resource mapping will be done. This exercise will aim at improving the understanding about the requirements of different categories of rural population. Conducting the primary survey will provide exposure to research methodology, techniques of data collection, data processing and analysis. Thrust of the exercise would be on:</p> <ul style="list-style-type: none"> <li>• Understanding the socio-economic aspects of the rural settlement</li> <li>• Importance of location, spatial and economic linkages of the village.</li> <li>• Explaining the social and physical infrastructure of the village.</li> <li>• Understanding the availability and usage of local resources.</li> <li>• Exposure to government programmes and institutional mechanism working for rural planning and development.</li> <li>• Identifying the present problems and future possibilities in the village.</li> <li>• Proposing a strategy of improvement in the condition and development of the villages.</li> </ul>	<b>40%</b>

**Student Learning Outcomes:**

- The outcome is to bring students of diverse backgrounds to a common platform and develop the essential skills of planning amongst the students opting for different specializations of planning.

**Pedagogy for Course Delivery:** The course will use an approach of analysis for planning studio, making computer drawings after physical, social-economic survey. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ExaminationScheme:**

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage(%)	NA	45	5	50



## Coursestructure: Seminar - I (DEMOGRAPHY AND QUANTITATIVE ANALYSIS) - MURP108

**Course Title: Seminar – I (DEMOGRAPHY AND QUANTITATIVE ANALYSIS)**

**Credit Units: 02 Course Level: PG Level**

**Course Code: MURP108**

### CourseObjectives:

- To overview concepts of demography and its relation as well as utilization in planning.
- To overview concepts of demography and its relation as well as utilization in planning.
- Students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation.

**Pre-requisites:** The students must possess fair understanding of all subject studied in first semester and implement all with the coordination on a specific topic related to current scenario of urban and regional planning.

### CourseContents/Syllabus:

Module	Weightage (%)
<b>Module 1: Demography and Planning Distribution and Density of Population -</b>	
<b>Descriptors/Topics</b> Measures of Population Distribution and Concentration; Factors Affecting Population Distribution and Density; World Population Distribution; Density Distribution in India Population Change - Fertility and Its Measures; Mortality and Its Measures; Mobility; Factors Affecting Population Change; Determinants of Fertility and Mortality.	15%
<b>Module 2: Demographic Theories, Migration, Population Composition and Projections</b>	
Demographic Transition Theory; Some Population Theories (Overview only); Migration - Types of Migration; Determinants of Migration; Migration Models; Population Composition - Age and Sex Composition and Its Determinants; Age Pyramids; Working Force and Its Determinants; Composition of Work Force and Occupational Composition; Population Projections - Assumptions, Methods, Techniques.	15%
<b>Module 3: Quantitative Methods-I</b>	
Measures of Central Tendency and Dispersion - Arithmetic Mean; Weighted Mean; Geometric and Harmonic Mean; Median and Mode; Variance and Standard Deviation; Time Series and Forecasting - Trend Analysis - Cyclical Variation, Seasonal Variation, Irregular Variation; Various Methods in Time Series Analysis - Moving Average, Ratio to Trend, Link Relative and Residual; Factor Analysis - Principal Component Analysis	20%
<b>Module 4: Quantitative Methods-II</b>	



Probability Distribution and Sampling Distribution - Use of Expected Value in Decision Making; Binomial, Poisson and Normal Distribution (only application); Determination of Sample Size and Types of Sampling; Sampling Distribution (concept only); Design of Experiments (concept only); Correlation and Regression - Two Variable versus Multiple Linear Regression; Simple and Multiple Correlation; Estimation of Parameters – The Method of Ordinary Least Squares; Hypothesis Testing, Goodness of Fit; Applications of Features of Excel for statistical analysis.	20%
<b>Module 5: Seminar - I</b> <b>Descriptors/Topics</b> The Seminar will provide a platform for students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation related to Physical planning, Planning issues, Planning policies, Planning interventions and Case Studies etc. The students may choose topics related to Studio Projects, Planning issues, Role of stakeholders in planning process, SWOT analysis, Efficiency and Deficiency in the planning process, Development Plans, Public Interest, Displacement, Specific case study etc.	30%

### Student Learning Outcomes:

- Acquire knowledge on demographic parameters used in planning.
- Appreciate demographic theories, trends and impacts of migration as well as project population.
- Use statistical methods of data analysis which are utilised in planning.
- Apply statistical sampling techniques and advanced data analysis methods.
- Students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation related to Physical planning, Planning issues, Planning policies, Planning interventions and Case Studies etc.

**Pedagogy for Course Delivery:** students shall prepare a three set of report in a prescribed format containing the details of the work done during the semester period which shall include the work report, field documentation and drawings on which students have worked.

### Text Books:

1. Burch, T. K. (2017). Fundamentals of Demographic Analysis: Concepts, Measures, and Methods. Canadian Studies in Population, 44(1-2), 121. <https://doi.org/10.25336/p6tw25>
2. Schabenberger, O., & Gotway, C. A. (2017). Statistical methods for spatial data analysis. Statistical Methods for Spatial Data Analysis (pp. 1-488). CRC Press. <https://doi.org/10.1201/9781315275086>
3. Yusuf, F., Swanson, D. A., & Martins, J. M. (2014). Methods of demographic analysis. Methods of Demographic Analysis (Vol. 9789400767843, pp. 1-310). Springer Netherlands. <https://doi.org/10.1007/978-94-007-6784-3>

### Reference Books:

1. Chi, G., & Zhu, J. (2008, February). Spatial regression models for demographic analysis. Population Research and Policy Review. <https://doi.org/10.1007/s11113-007-9051-8>
2. Wachter, K. W. (2015). Essential Demographic Methods. Essential Demographic Methods. Harvard University Press. <https://doi.org/10.4159/9780674369757>



# AMITY UNIVERSITY

MADHYA PRADESH

Established vide Government of Madhya Pradesh Act No. 27 of 2010

## Assessment/ExaminationScheme:

*The continuous evaluation of this subject will be done with the MURP107 (Studio-I).*

Components	Report	Log Book	Viva (Internal)	End Term (VV)
Weightage(%)	10	10	30	50



## Course structure: Regional Planning and Development – MURP201

**Course Title: Regional Planning and Development**

**Course Level: PG Level**

**Course Objectives:**

- The course attempts to understand the theoretical basis for various concepts and analytical tools of Regional Planning and learn the practice of regional planning in the Indian context.
- Elements of settlement system in the regional context are also incorporated in this course.
- The course provides an in-depth understanding of the issues of regional development, regional disparity and the need for balanced regional development in the context of globalization and rapid economic transformations in the country. Regional policies and sector policies are also discussed.
- Metropolitan regions, districts as planning regions and rural planning issues are discussed in the wider spectrum of holistic regional planning and development.

**Credit Units: 03**

**Course Code: MURP201**

**Pre-requisites:**

- The students must possess fair understanding of the regional planning in the Indian context.

**Course Contents/Syllabus:**

	Weightage (%)
<b>MODULE 1 Various concepts and analytical tools of Regional Planning</b>	
<b>Descriptors/Topics</b> Concept of Region: Region Types and Regionalization; Concept of Regional Planning: Nature, Objectives, Levels and Aims, Elements of Settlement System: Function, Spacing, Linkage, Settlement Pattern and Factors Responsible Thereof; Potentials and Centrality of Settlements, Regional Inequalities – Growth, Density and Spatial Inequalities of Population Distribution, Spatial Patterns and Characteristics of Occupational Types; Regional Planning Policies and Its Relevance.	20%
<b>Module 2: Practice of regional planning in the Indian context</b>	
<b>Descriptors/Topics</b> Regions in Indian Context: Resource Regions, Corridors as regions, National, sub-national and State as a region, macro, macro and micro regions in India. Case Studies from India, Tools and techniques available for planning regions in India; Role of 73rd and 74th Constitution Amendment Acts in regional plan preparation and implementation., Introduction to Economic and Regional Growth Processes: Some Approaches of Rostow, Hirschman, Myrdal, Friedman, Haggerstand; Concept of Growth Centers, Growth Pole, Service Centre and Agro-Politan District and their Application in India.	30%
<b>Module 3: Regional policies and sector policies, metropolitan regions, district planning process</b>	

<p><b>Descriptors/Topics</b>  Regional Development Strategies: Centralized and Decentralized; Regional Planning Process: Location of new Regional Economic Activities; Tools and Techniques of Regional Analysis; Metropolitan Regions- :  Concept of Degree of Primacy, Area of Influence, Service Area; City Regions and Delineation Techniques; Centralization and Decentralization Processes; Concepts of Ring and Satellite Towns, Counter-Magnets; Forms and Concepts for Metropolitan Planning and Development.  District Planning Process: Identification of Plan Objectives; Collection, Classification and Analysis of Data; Norms and Standards for District Planning; Components of District Planning in the Context of 73rd CAA,  1992, Planning Process Under District Planning Committee, Metropolitan Planning Committee; Plan Implementation: Five Year Plans and Rural Development; Planning Process, Policies and Programmes at National, State, 18 Regional and District Levels; Planning, Development, Implementing and Monitoring Organizations and Agencies: National and State.</p>	<b>20%</b>
<b>Module 4: Rural planning issues and Infrastructure and Plan Implementation</b>	
<p><b>Descriptors/Topics</b>  Concepts of Rural Area and Rural Development; Scope of Rural Development; Causes of Rural Backwardness; Historical Evolution of Rural Development and Economic Issues of Rural Development - Differentiating Economic Growth and Economic Development; Rural Jobs and Income Sources; Rural Economic Policy ,Infrastructure and Plan Implementation; Tools and Constraints in the Implementation of Plans in Terms of Administration; Schemes, Programmes, Policies for development of regions, districts, villages and cities in India</p>	<b>30%</b>

### Student Learning Outcomes:

- The objective of the course is to understand the theoretical basis for various concepts and analytical tools of Regional Planning and learn the practice of regional planning in the Indian context. Elements of settlement system in the regional context are also incorporated in this course.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and literature study. Participants are encouraged to engage in active interaction through classroom participation

### Assessment/ExaminationScheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

### Text Reading:

- Regional Planning –Concepts, Techniques, Policies and Case Studies, Misra, R.P., New Delhi
- Regional Development Planning in India, R.P Mishra, Vikas, Delhi.
- Regional Planning and Development, Qaiyum, A., ITPI, New Delhi
- Regional Planning and Development, Rangasamy, S., Madurai
- An Introduction to Regional Planning – Concept, Theory and Practice, Glasson, John: Susesex

### References:

- GoI: Ministry of Rural Development, Department of Land Resource, Desert Development Programme, New Delhi



## Course structure: Planning Legislation – MURP202

**Course Title: Planning Legislation**

**Course Level: PG Level**

**Course Objectives:**

- The objective of this course is to initiate students with the various legislations in existence in India which had an impact on urban and regional planning and development.

**Credit Units: 03**

**Course Code: MURP202**

**Pre-requisites:**

- The students must possess fair understanding of the legislation study of urban and regional planning in India

### Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Introduction to Planning Legislation</b>	
<b>Descriptors/Topics</b> The Meaning, Significance and Objectives of Planning Legislation; Evolution of Planning Legislation in India; Overview of Legal Tools for Urban Planning & Development (Town and Country Planning Act, Improvement Trust and Development Authorities Act etc.) for any State.	20%
<b>Module II: Legislations on Land Development</b>	
<b>Descriptors/Topics</b> The Constitutional basis and provisions relating to land, Its Development and Use. The Preparation and Implementation of Regional Plans, Development Plans, Town Planning Schemes, Area Plans etc. (Legislation Thereof). Legislation for Land Acquisition and Land Ownership, Including Rural and Urban Land Ceiling Acts and Their Implications in Development.	30%
<b>Module III: Legislations on Conservation</b>	
<b>Descriptors/Topics</b> Legislation on Conservation of Natural Resources and Heritage Building: Mining and Forestry Acts, Conservation and Management of Ancient Monuments and Archaeological Sites and Ruins Act.	20%
<b>Module IV: Development Control Regulations</b>	
<b>Descriptors/Topics</b> Overview of Development Control Regulations- Zoning, Sub-Division Regulations, Building Regulations and Bye Laws; Apartment Ownership Act, Water Bodies Conservation Act; Environment Protection Act. 73rd and 74th Constitution Amendment Acts and other relevant acts e.g. Nagar Raj Act; Model Municipal Act.	30%



**Student Learning Outcomes:**

The outcome of this course is to teach students with the various legislations in existence in India which had an impact on urban and regional planning and development.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and socio-economic surveys conduct on study areas. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

1. Town and Country Planning Act (any State Act)
2. Model Municipal Act, Ministry of Urban Development, Government of India
3. Nagar Raj Act (any State Act)
4. Environment Protection Act (Central Act)
5. Mining and Forestry Act (Central Act)
6. Building Byelaws (any State Act)
7. Apartment Ownership Act (any State Act)
8. Development Authority Act (any State Act)
9. Water Bodies Conservation Act (any State Act).



## Course structure: Local Governance, Management and Finance – MURP203

**Course Title: Local Governance, Management and Finance**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP203**

**Course Objectives:**

- The primary purpose of this course is to apprise the students of the local governance framework at sub provincial level and resource mapping of local governments with special emphasis on municipal governments in our country. The course intends to acquaint the students with the governance structure and fiscal and financial background of the local governments and tools and techniques to strengthen them.
- The course would include Constitutional Provision for Local Finance, Municipal Finance, and Innovations in Local Resource mobilization and Local Government fiscal regime. Behavioral Orientation for Governance: Team Building and Leadership; Conflict Management; Change Management, Stress Management

**Pre-requisites:**

- The students must possess fair understanding of the local governance framework.

**Course Contents/Syllabus:**

	Weightage (%)
<b>Module I: Democracy and Decentralization</b>	
<b>Descriptors/Topics</b> Democracy and Decentralization: Evolution of Local Self Government: Democracy in Governance: Shift from Representative Democracy to Participatory Democracy; Decentralization of Governance; Evolution of local self Government – Principles of Subsidiarity, Complementarity and Equity; Local Governance Framework. Parastatal Agencies: Role of Improvement Trusts, Development Authorities, SEZs and Special Purpose	30%
<b>Module II: Local Governance</b>	
<b>Descriptors/Topics</b> Local Governance: Institutional Framework: Reinstatement of Panchayati Raj Institutions and Urban Governance Institutions: Constitutional Sanction; Salient Features of 73rd and 74th Constitutional Amendment Act, 1992; Constitution, Powers and Functions of Municipal Governments and PRIs (Village Panchayat and Zila Parishad. Innovations in Local Governance: Indicators of Good Governance: Formulation of Governance Index; Citizens' Charter; Citizens' Participation in Urban Governance: Institutional and Legal Framework; Ward/Wards Committee; Nagar Raj Act: Constitution, Powers and Functions of Area Sabhas; e municipal Governance; Performance Evaluation of Local Governments: Introduction of Report Card System; Service Level Benchmarking; Globalization and Its Impact on Urban Settlements; Corporatization and Regulatory Regime for Urban Services). Local Governance Reforms: Administrative Reforms in Local Governance: Better Human Resource Management; Expenditure Planning, Rightsizing and Outsourcing; Introduction of VRS; Performance Auditing of Municipal Staff. Structural Reform in Local Governance: Organizational Restructuring of Local Governments: Task Based Municipal Cadre; Capacity	35%
<b>Module III: Constitutional Provision for Local Finance</b>	

<p><b>Descriptors/Topics</b>  Principle of Fiscal Federalism – Inter Governmental Fiscal Transfer; Constitution, Powers and Functions of Central Finance Commission (CFC) and State Finance Commission (SFC); Analysis of Current CFC and SFC (any one State) Report; Consolidated Fund (Central and State); Centrally Sponsored Schemes related to Urban/Rural Physical Planning and related sectors. Municipal Finance: Plan and Non Plan Financing (Planning Commission and Finance Commission); Categorization of Municipal Sources of Revenue: Internal Vs. External Revenue, Capital Vs. Revenue Receipt; Municipal Finance Assessment Framework; Municipal Finance: Paradigm Shift; Reforms in Municipal Finance: Unit Area Method in Property Tax Calculation, Rationalization of User Charges; Ring fencing; Streamlining Municipal Tax Administration. Innovations in Local Resource Mobilization: Monetary Exaction (Betterment Levy, Impact Fee, External Development Charges, Vacant Land Development Tax); Land Exactions (TDR, Town Planning Scheme, Accommodation Reservation, Monetization of Underutilized Public Assets); Special Assessment Districts; Valorization Charges; External Finance: Debt Financing, PPP, Role of Financial Intermediaries, Municipal Bond, Pooled Finance. Local Government Fiscal Regime: Local Government Budget: Normal Budget, Performance Budget, Gender Budget (concept only); Salient Features of Fiscal Responsibility and Budget Management Act, 2003; Fiscal Devolution vis a vis Fiscal Dependency of Local Bodies; Fiscal Indicators – Revenue Dependency Ratio (RDR), Fiscal Autonomy Ratio (FAR), Expenditure Decentralization Ration (EDR); Municipal Accounting and Auditing</p>	<p><b>35%</b></p>
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**Student Learning Outcomes:**

- The outcome of this course is to apprise the students of the local governance framework at sub provincial level and resource mapping of local governments with special emphasis on municipal governments in our country.
- The course intends to acquaint the students with the governance structure and fiscal and financial background of the local governments and tools and techniques to strengthen them.

**Pedagogy for Course Delivery:** The course will use a mix of theory, studio work with physical survey and application of software. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ExaminationScheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

**Text Reading:**

1. Constitution of India, D.D. Basu, S. Chand and Sons, New Delhi
2. Democracy, Development and Decentralisation – Continuing Debates, Taylor and Francis, India
3. India: The Challenges of Urban Governance, O.P. Mathur, National Institute of Public Finance and Policy, New Delhi.
4. Local Governance in India – Niraja Gopal et all., Oxford University Press
5. New Forms of Urban Governance in India, Baud I.S.A. et all., Sage



## Course structure: Land Economics and Real Estate – MURP204

**Course Title: Land Economics and Real Estate**  
**Course Level: PG Level**

**Credit Units: 03**  
**Course Code: MURP204**

### Course Objectives:

- One of the prime concerns of urban development is the issue of land availability. In addition to government policies on land, market forces guide and force development on different patterns based solely on the equilibrium of demand, supply and pricing. In India, since the liberalization of the economy and housing being provided by the private sector, the dynamics of the housing industry have changed significantly. This course introduces students to the concept of land markets and development of cities with private developers with the interests of profit, as key players in the development process.

**Pre-requisites:** The students must possess fair understanding of the government policies on land, market forces guide and forced development Course Contents/Syllabus:

	Weightage (%)
<b>Module I: Land Economics</b>	
<b>Descriptors/Topics</b> Economic Concepts of Land; Objectives and Scope of Land Economics; Land Use and Land Values: Market Dynamics and Impact on Land Use Pattern; Land Use Restrictions Affecting Land Availability.	20%
<b>Module II: Development of Land and Real Property Process</b>	
<b>Descriptors/Topics</b> Cost of Development, Source of Finance; Economic Aspects of Land Policies at Various Levels of Decision Making; Private Ownership and Social Control of Land. Definition of Real Estate - Physical, Financial and Social Perspectives; Comparison of Real Estate to Other Investment Avenues; Real, Local, National and Global Factors Affecting Real Estate; Real Estate as Facilitator of Development	30%
<b>Module III: Concepts of Real Estate Analysis</b>	
<b>Descriptors/Topics</b> Mapping Supply to Understand Markets; Demand Factors Affecting Real Estate Development, Demand-Supply Gap Analysis; Methods of Technical and Financial Feasibility Analysis for Different Product and Project Types; Valuation of Land and Property; Methods of Valuation: Comparison Method, Residual Method, Discounted Cash Flow Method; Transaction and Renting of Real Estate: Lease Deeds/ Sale Deeds, Sale Documents, Registration; Mortgage and Pledging.	20%
<b>Module 4: Module IV: Real Estate Dynamics in Indi</b>	

Profiling of Metropolitan Cities, Tier I, Tier II And Tier III Cities; Changing Cycles of Real Estate Development. Emerging Areas of Real Estate Development: Diversification to Logistic Hubs, Industrial Parks, Hospitality Sector, Health and Education Sector by Private Players; Introduction to Financial Models. Divided cities- the concept of affordability and housing as against shelter as a basic requirement; towards inclusive cities.

30%

**Student Learning Outcomes:**

- This course outcome is to introduce students about the concept of land markets and development of cities with private developers with the interests of profit, as key players in the development process.

**Pedagogy for Course Delivery:** The course will use a mix of theory, studio work of infrastructure design and transportation and traffic surveys. Participants are encouraged to engage in active participation through classroom and field study.

**Assessment/Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

**Text Reading:**

1. Urban Economics, Arthur O’Sullivan, Mcgraw-Hill
2. Urban Economics and Real Estate Markets, Denise DiPasquale and William C. Wheaton, Prentice hall
3. Urban Land Market and Land Price Change: A Study in the Third World Context, Amitabh Kundu, Ashgate Publishing Company.
4. Economics, Real Estate and the Supply of Land, Alan Evans, Wiley and Blackwell
5. Analyzing Land Readjustment: Economics, Law and Collective Action, Hong, Yu-Hung and Barrie Needham, Lincoln Institute of Land Policy

**References:**

- Urban Land Economics, Jack Harvey, Palgrave MacMillan
- Urban Land Economics and Public Policy, Paul N. Balchin, Gregory H. Bull and Jeffrey L. Kieve, Palgrave MacMillan
  - Real Estate Finance: Theory & Practice, Terrence M. Claurette and G. Stacy Sirmans, Cengage Learning
  - Urban Land Policy and Public-Private Partnership for Real Estate and Infrastructure Projects, A. K. Jain, Readworthy
  - The Modern Economics of Housing : A Guide to Theory and Policy for Finance and Real Esta.



## Course structure: Transport Planning and Management – MURP205

**Course Title: Transport Planning and Management**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP205**

**Course Objectives:**

- The basic objective of this course is to introduce to the students of planning with the integration of transportation planning and its interface of land use planning. Another objective is to ensure that students have a sound understanding of the key issues affecting the planning, management and financing of public transport in developed and developing countries.

**Pre-requisites:** The students must possess fair understanding of the transportation planning and its interface of land use planning.

**Course Contents/Syllabus:**

	Weightage (%)
<b>MODULE 1 : Planning with the integration of transportation planning and its interface of land use planning</b>	30%
<b>Descriptors/Topics</b> Understanding Sustainable Development and Sustainable Transport; Land-Use and Transport Planning – Key Relationships; Land Use Transport Integration Models , Transport and its Relationships with the Economy, Environment and Social Progress; Accessibility Measures, Indicators of Progress, Frameworks of Assessment, Development Control and Travel Planning ,Transportation Planning Process - Area Delineation, Zoning (TAZ); Four Stage Planning Process: Trip Generation, Trip Distribution, Trip Assignment and Modal Split.	
<b>MODULE 2 : Transport</b>	40%
<b>Descriptors/Topics</b> Transportation Planning Process - Area Delineation, Zoning (TAZ); Four Stage Planning Process: Trip Generation, Trip Distribution, Trip Assignment and Modal Split , Traffic Management- Signal design; Phasing and Time cycles; Principles of one way system design , Pedestrianisation and non-motorised transportation- Issues, policies and case studies; Towards more inclusive cities; Comprehensive Mobility Plan , Introduction to External Cost of Urban Transportation: Issues, Level of Service and Transport Pricing, Congestion Pricing, Policy Issues, Emission Standards and Energy Policy; National Urban Transport Policy 2006 ,Pricing and Revenue in Transport- Pricing; Revenue and Forecasting; Willingness to Pay; Introduction to Freight Transport- differences from passenger transport; location choice of transport hubs in relation to regional distribution linkages , Regional Transport Issues: Intercity Connectivity; Urban –Rural Linkages and Road Hierarchy; Road and Rail as Competing/Complementary Modes; Highway Standards in Indian Context;	
<b>Module 3: Software Applications:</b>	30%
<b>Descriptors/Topics</b> E.G. Cube 6- Network Coding, Creation of Models, Data Base and Scenarios in Cube Base, Cube Voyager Modeling Functions; Urban Land Use &Transportation Planning Applications	

**Student Learning Outcomes:**

- The outcome of this course is to introduce to the students of planning with the integration of transportation planning and its interface of land use planning

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and literature study with hands on exercises of housing layout. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

1. Modelling Transport (2011), Juan De Dios Ortuzar, Luis G. Willumsen, Publisher: John Wiley & Sons
2. Integrated Land Use and Transport Modelling, Author: Tomas De La Barra, Publisher: Cambridge University Press.
3. Location, Transport and Land-Use: Modelling Spatial -Temporal Information, by Yupu Chan, Publisher: Springer
4. The Economics of Transport: A Theoretical and Applied Perspective, Jonathan Cowie, Routledge
5. Transportation Engineering and Planning, C. S Papacostas, P. D Prevedouros PHI Learning

**References:**

- Transportation Engineering: An Introduction, C. Jotin Khisty, B. Kent Lall Phi Learning
- Public Transportation Improvement, Semiat Idris, Lambert Academic Publishing
- The Economics of Transport: A Theoretical and Applied Perspective, Jonathan Cowie, Routledge
- Integrated Land Use and Transport Modelling, Author: Tomas De La Barra, Publisher: Cambridge University Press.



## Course structure: Geoinformatics Lab – MURP206

**Course Title: Geoinformatics Lab**

**Credit Units: 01**

**Course Level: PG Level**

**Course Code: MURP207**

### Course Objectives:

- The objective of this course is to equip students with advanced concepts of Geoinformatics with special emphasis on applications in Urban and Regional Planning.

**Pre-requisites:** The students must possess fair understanding of the GIS concept, applications, remote sensing and statistical applications and plan preparation.

### Course Contents/Syllabus:

	Weightage (%)
<b>MODULE 1- Concepts of Geoinformatics</b>	
<b>Descriptors/Topics</b> Overview: Principles and Applications of Remote Sensing (RS); Geographic Information Systems (GIS) and Photogrammetric; Organizational Aspects for Planning; Systems, Nature, Hierarchy, Value and Type of Required Spatial Data; Raster and Vector Data Structures; Spatial Data Models; Geo-Database; Analysing Tools and Software; Global Navigation Satellite Systems; Electromagnetic Spectrum, Band Combination, Reflectance; Image Interpretation and Analysis, Information Systems - Information Needs, Scales and Levels; Pre-Conditions for Using Planning Information Systems; Representing	20%
<b>MODULE 2:- Modeling</b>	
<b>Descriptors/Topics</b> Impact Analysis of the Data; Structure Models; Query Measurement and Transformations; Summary Statistics and Inference; Terrain Modeling • Data Creation and Checking - Base Maps and Thematic Maps; Mapping and Spatial Analysis; Linking of Attribute Data, Spatial Data Aggregation; Spatial Information, Database Creation; Geo-Coding and Data Accuracy, Topology Creation , Topography and Landforms; Digital Change Detection; Suitability Analysis; Landuse / Landcover Analysis; Use of GIS Data Focusing on Urban and Regional Planning	40%
<b>Applications in Urban and Regional Planning MODULE 3:-</b>	



Laboratory Exercises – in Selected Packages of Image Processing and GIS; Dynamic GIS Integration of GIS and Digital Image Processing; Integration of GIS and GPS; Web Enabled GIS Applications.	<b>40%</b>
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**Student Learning Outcomes:**

The outcome of this course is to equip students with advanced concepts of Geoinformatics with special emphasis on applications in Urban and Regional Planning.

**Pedagogy for Course Delivery:**

- The course will use a GIS for making computer drawings and tutorial. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage(%)	NA	45	5	50



## Course structure: Studio-II (Urban Planning)– MURP207

**Course Title: Studio-II (Urban Planning)**

**Credit Units: 07**

**Course Level: PG Level**

**Course Code: MURP206**

**Course Objectives:**

- The thrust of this studio would be on regional planning and would include the preparation of a regional development plan for a selected area

**Pre-requisites:** The students must possess fair understanding of the physical planning and develop the skills of documentation, data analysis, spatial representation and written and verbal communication.

**Course Contents/Syllabus:**

	Weightage (%)
<b>Module I- Urban Planning Studio</b>	<b>100%</b>
<b>Descriptors/Topics</b> <ul style="list-style-type: none"> <li>• Defining characteristics of identified areas</li> <li>• Case study and literature review of planning concepts and norms for the selected area/special area</li> <li>• Selection of site and collection data (field trip of 2 weeks duration)</li> <li>• Data analysis and presentation</li> <li>• Outline framework of development – Sectoral and spatial</li> <li>• Implementation framework – capital investment and funding methods</li> <li>• Financial feasibility</li> <li>• Governance and management aspects.</li> </ul>	

**Student Learning Outcomes:**

- The outcome of this studio is the preparation of a urban development plan (master plan) for a city.

**Pedagogy for Course Delivery:**

- The course will use an approach of analysis for planning studio, making computer drawings after physical, social-economic survey. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/Examination Scheme:**

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage(%)	NA	45	5	50



**Course Title: Seminar - II**

**Credit Units: 02**

**Course Level: PG Level**

**Course Code: MURP208**

**Course Objectives:**

- Students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation.

**Pre-requisites:** The students must possess fair understanding of all subject studied in first semester and implement all with the coordination on a specific topic related to current scenario of urban or regional planning.

**Course Contents/Syllabus:**

	Weightage (%)
<b>Module 1: Seminar - I</b>	<b>100%</b>
<b>Descriptors/Topics</b> The Seminar will provide a platform for students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation related to Physical planning, Planning issues, Planning policies, Planning interventions and Case Studies etc. The students may choose topics related to Studio Projects, Planning issues, Role of stakeholders in planning process, SWOT analysis, Efficiency and Deficiency in the planning process, Development Plans, Public Interest, Displacement, Specific case study etc.	

**Student Learning Outcomes:**

- The outcome of this course is to provide a platform for students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation related to Physical planning, Planning issues, Planning policies, Planning interventions and Case Studies etc

**Pedagogy for Course Delivery:** students shall prepare a three set of report in a prescribed format containing the details of the work done during the semester period which shall include the work report, field documentation and drawings on which students have worked.

**Assessment/Examination Scheme:**

Components	Report	Log Book	Viva (Internal)	Attendance	End Term (VV)
Weightage(%)	10	10	25	5	50



## Course structure: Project Appraisal and Management – MURP301

**Course Title: Project Appraisal and Management**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP301**

**Course Objectives:**

- The objective of the course on Project Appraisal and Management is to train the students in managing a project right from its conception to evaluation. The organization of the course has been so designed that it graduates from concept to application on all aspects of project management besides imparting the application techniques relevant for the concerned topic, students would also be made familiar with Microsoft Project in performing simple project management tasks.

**Pre-requisites:**

- The students must possess fair understanding of the natural and man-made disasters.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module 1: Project Management and Project Appraisal</b>	
<b>Descriptors/Topics</b> Definition of Project and Project Management; Importance of Project Management; Stages of Project Life Cycle; Causes of Project Delay; Behavioral Aspects of Project Management; Role of Project Manager; Attributes of a Successful Project Manager Introduction to Project Appraisal; Types of Feasibility; Financial and Economic Appraisals; Ascertaining Project Costs and Benefits; Project Financial Appraisal Techniques – Payback Period, Benefit Cost Ratio, Net Present Value, Internal Rate of Return; Components of a Feasibility Study; Social Cost Benefit Analysis	<b>20%</b>
<b>Module 2: Project Planning</b>	
<b>Descriptors/Topics</b> Introduction to Project Planning; Process of Project Planning; Project Planning during Investment Phase; Planning for Project Work (Work Breakdown Structure); Planning for Manpower and Organisation; Planning for Project Finance; Planning for Information System; Process of Project Formulation; Constraints in Project Formulation; Breakeven Analysis; Sensitivity Analysis ;Project Budgeting and Performance Budgeting	<b>30%</b>
<b>Module 3: Project Scheduling and Project Monitoring</b>	
<b>Descriptors/Topics</b> Definition of Project Scheduling; Steps in Project Scheduling; Network Techniques in Project Scheduling; Activity on Arc/Node; Forward Pass and Backward Pass; Critical Path and Slack; CPM Simulation; PERT (Concept only); Gantt Chart (Concept only) Definition of Project Monitoring; Criteria for Decision Making; Parameters and Tools of Control; Use of Network Analysis in Project Monitoring; Analysis of Cost and Time; Reporting and Corrective Actions; Resource Management – Resource Loading and Resource Leveling; Project Reporting	<b>20%</b>
<b>Module 4: Project Evaluation</b>	

<b>Descriptors/Topics</b>	<b>30%</b>
Types of Project Evaluation; Tools of Project Evaluation; Time Frame in Evaluation;	
Project Cash Flows – Elements of Cash Flow Stream; Principles of Cash Flow Estimation; Project	
Benefits; Sources of Funds – Disposition of Funds; Financial Closure	

**Student Learning Outcomes:**

The outcome of this course is to train the students in managing a project right from its conception to evaluation and its application on all aspects of project management besides imparting the application techniques relevant for the concerned topic.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and literature study. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
<b>Weightage(%)</b>	<b>20</b>	<b>25</b>	<b>5</b>	<b>50</b>

**Text Reading:**

1. Construction Project Management : Planning, Scheduling and Controlling, K.K. Chitkara, Tata Mc Graw Hill
2. Project Management, Clifford F Gray et all, Tata Mc Graw Hill
3. Construction Project Management, Kumar Neeraj Jha, Pearson Education
4. Project Management – FAQ, G.P. Sudhakar, Goltatia Publication
5. Project Management, Vinod M. Patel, Oxford Book Company

**References:**

6. Project Management, S. Choudhury, Tata Mc Graw Hill
7. Project Management – A Managerial Approach, Samuel J. Mantel, Wiley India
8. Essentials of Project Management, Ramakrishna Kamaraja, Phi Learning
9. Project Management, R.C. Sinha, Alpha Publications
10. Projects: Planning, Analysis, Selection and Review, Prasanna Chandra, Tata Mc Graw H



# AMITY UNIVERSITY

MADHYA PRADESH

*Established vide Government of Madhya Pradesh Act No. 27 of 2010*



## Course structure: Disaster Mitigation and Management – MURP302

**Course Title: Socio - Disaster Mitigation and Management**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP302**

**Course Objectives:**

The objective of this course is to initiate students with the issues of various types of natural and man-made disasters and impart techniques of mitigation and management.

**Pre-requisites:** The students must possess fair understanding of the natural and man-made disasters.

**Course Contents/Syllabus:**

	<b>Weightage (%)</b>
<b>Module 1: Introduction of Disasters</b>	
<b>Descriptors/Topics</b> <ul style="list-style-type: none"> <li>• Definitions, Meaning and Types of Disasters; Overview of Disasters across the World</li> <li>• Natural Disasters and Manmade Calamities- Statistics, Degree of Damage Frequency of Occurrences and Other Historical Facts</li> <li>• Classification of Disasters in India by Predominant Types- Earthquake, Flood Hurricanes, Fires Etc.</li> <li>• Identification of Disaster-prone areas; Disaster Vulnerability Mapping</li> </ul>	<b>35%</b>
<b>Module II:</b>	
<b>Descriptors/Topics</b> <ul style="list-style-type: none"> <li>• Disaster Preparedness, Response and Post Disaster Recovery and Rehabilitation Measures; Risk Mitigation and Risk Transfer</li> <li>• Technology for Rebuilding of Disaster Affected Areas</li> <li>• Psychological Impact on Disaster Victims</li> <li>• Risk Mitigation and Risk Transfer</li> </ul>	<b>35%</b>
<b>Module III:</b>	
<b>Descriptors/Topics</b> <ul style="list-style-type: none"> <li>• Recent Initiatives at International National and State Level; Kyoto Framework of Disaster Mitigation and Management; Disaster Management Policies and Act - National and States; Select Global Practices</li> <li>• Forecasting and Early Warning Systems for Various Types of Disasters; Communication and Information Technology in Disaster Management</li> <li>• Climate Change and Its Implications in Disaster Mitigation</li> </ul>	<b>30%</b>

**Student Learning Outcomes:**

- The outcome of this course is to initiate students with the issues of various types of natural and man-made Disasters and impart techniques of mitigation and management.

**Pedagogy for Course Delivery:** The course will use a mix of theory, presentations and socio-economic surveys conduct on study areas. Participants are encouraged to engage in active interaction through

classroom participation.

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
<b>Weightage(%)</b>	<b>20</b>	<b>25</b>	<b>5</b>	<b>50</b>

**Text Reading:**

1. Disaster Management Handbook, Pinkowski J., CRC Press
2. Disaster Recovery, Brenda D. Phillips, CRC Press
3. Earthquake Architecture: New Construction Techniques for Earthquake Disaster Prevention, Garcia, Belen, New York, Loft Publications
4. Environmental Hazards : Assessing Risk and Reducing Disaster, Smith, K., David P., London, Routledge Publications
5. Handbook of Disaster Research, Rodriguez, H., ed., Quarantelli, E., ed., Dynes, R.R., ed., New York, Springer Science





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*Established vide Government of Madhya Pradesh Act No. 27 of 2010*



## Course structure: Urban Design and Landscape – MURP303

**Course Title:** Urban Design and Landscape

**Credit Units:** 03

**Course Level:** PG Level

**Course Code:** MURP303

**Course Objectives:**

- The course comprises of two components of Urban Design and Landscape. The objective of this course is to acquaint student with the role of urban design and landscape planning in Urban and Regional Planning and equip them with appropriate methods and techniques.

**Pre-requisites:** The students must possess fair understanding of Urban Design and Landscape.

**Course Contents/Syllabus:**

	Weightage (%)
<b>Module- I - Urban Design</b>	
<b>Descriptors/Topics</b> <b>Scope and Objectives of Urban Design;</b> Its Relation with Architecture and Urban Planning; Scale of Various Urban Design Projects - Regional and City Level; Urban Design Terminology, <b>Modern Techniques, Methods and Emerging Approaches to Urban Design;</b> Behavioral Issues in Urban Design; Principles of Urban Spatial Organization, <b>Urban Spaces</b> - Hierarchy and Nature, Sense of Enclosure, Isolation and Continuity, Skin and Perception; Urban Massing in Built Form; Image Ability and Elements of Urban Design, <b>Urban Design at Micro Level:</b> Campus Planning, City Centers, Transportation Corridors, and Residential Neighborhoods, <b>Development Control Guidelines, Zoning</b> --- Restrictive, Indicative, Performance and Incentive Zoning, The Social, Perceptual, Temporal and Morphological Aspects of Urban Design, Understanding Scale and Issues of Urban Design Interventions and Strategies in Cities, <b>Case Studies of Urban Design Projects:</b> Best Practices and Analysis of Urban Design Projects in India.	30%
<b>Module- II - Landscape</b>	
<b>Descriptors/Topics</b> A Comparative Study of the Major Traditions of Landscape Design in the East and the West in Relation to Concepts of Space and Variations in the Use of Landscape Elements, Principles and Techniques of Design with Landform, Water and Vegetation. Plant Characteristics and Planting Designs; Plantations along Urban Roads and Regional Highways; Landscaping of Recreational Areas; Landscape Design Related to Land-Use, Circulation Networks and Activity; Street Furniture as a Component of Urban Landscape. Characteristics and Components of Open Space Patterns in Towns and Cities (Traditional and Contemporary); Basic Types: Streets, Squares, Plazas, Gardens, Ghats and Maidans, Public Parks at District, Local and Neighborhood Levels; Park Systems; Urban and Regional Level Open Spaces.  The Rural Landscape: Characteristics, Components and Change Related to Agriculture, Forestry and Development, Principles of Understanding and Evaluating an Existing Landscape; Development as a Response to Constraints and Opportunities Offered by the Site, Site Planning: Site and Resource Inventory Methods, Analyses and Appraisal; Landscape Suitability Analysis, Landscape Evaluation;	35%

<b>Module- III - Landscape Conservation</b>	<b>35%</b>
<b>Descriptors/Topics</b> Principles and Techniques, Landscape Planning as a Component of Regional Development Proposals for Industrial Location (Manufacturing and Extractive); Environmental Conservation, Tourism, Etc	

**Student Learning Outcomes:**

- The outcome of this course is to acquaint student with the role of urban design and landscape planning in Urban and Regional Planning and equip them with appropriate methods and techniques.

**Pedagogy for Course Delivery:** The course will use a mix of theory, studio work with physical survey and application of software. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

1. The Urban Design Reader, Elizabeth Mcdonald, Routledge, New York
2. Public Places Urban Spaces: Dimensions of Urban Design, Mathew Carmona, Steve Teisdell, Architectural Press, London.
3. Redesigning Cities: Principles, Practice, Implementation, Jonathan Barnett , American Planning Association , New York.
4. Responsive Environments, Ian Bentley, Architectural Press, London
5. Image of the City, Kevin Lynch, MIT Press
6. Urban Design: The Architecture of Towns & Cities, Paul D. Spreiregen, R.E. Krieger Pub.



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## Course structure: Elective I: Urban Redevelopment – MURP304

**Course Title: Elective I: Urban Redevelopment**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP304**

### Course Objectives:

- This course introduces students to basic concepts in urban renewal. The course provides an understanding of the principal academic discourse relating to processes of urban renewal and change, and a critical awareness of theory relating to the process of urban renewal, and its application to specific practice settings and questions.

**Pre-requisites:** The students must possess fair understanding of the concepts in urban renewal.

	Weight age (%)
<b>Module I: Changing Cities &amp; Neighbourhoods;</b>	
<b>Descriptors/Topics</b> Broad Knowledge of the Concepts and Theories Relevant to the Study of Urban Redevelopment; Spatial Planning and Urban Policy (together with an understanding of the main trends in urban development in developing countries today) Policy Analysis for Urban Redevelopment; Introduction of Different Ways of Thinking about what Policy is and how it is formulated: The Actors, Institutions, Ideologies, Information (Evidence), Popular Opinion, The Media and Other Factors that Influence Urban Policy-Making and Policy Outcomes with Respect to Urban Renewal and Regeneration	20%
<b>Module 2: Regenerating Cities: Strategies &amp; Evaluation;</b>	
<b>Descriptors/Topics</b> An Overview of the Development, Delivery and Impact of Regeneration Strategies; The Challenges of Achieving Effective Regeneration in Indian Cities in the Context of Global Change and Competition and Experiences in South East Asian and East Asian Countries. The Role of Public Sector Agencies; Area Based Redevelopment Initiatives; Property-Led Redevelopment Policies; Investment and Funding of Urban Redevelopment Schemes	30%
<b>Module III: Role of private sector in redevelopment-</b>	
<b>Descriptors/Topics</b> Nature of In-fill; Development Potential and Pricing; Land locking and stagnation; Plot reconstitution. Renewal through Housing and Mixed-Use Development; Community Participation in Renewal Schemes; Sustainable Development through Urban Renewal; Brownfield Development with Respect to Urban Renewal in Cities	20%

<b>Module 4: Integrated Urban Conservation –</b>	<b>30%</b>
Principles, Economic, Legal and Tourism Aspects; Planning Procedures, Inspection and Surveys; Investigation Techniques; Methods for Inventories and Documentation; Identification and Reporting on Heritage Zones; Grading and Enlisting. Programs and Techniques for Adaptive Reuse, Restoration, Rehabilitation; New Buildings in Historic Settings – Aspects and Design Methods. Implementation of Plans and Urban Management: Phasing, Resource Mobilization, Incentives; Acts and Legal Tools;	

**Student Learning Outcomes:**

- This course outcome is to introduce students about basic concepts in urban renewal and the process of urban renewal, and its application to specific practice settings and questions.

**Pedagogy for Course Delivery:** The course will use a mix of theory, studio work of infrastructure design and transportation and traffic surveys. Participants are encouraged to engage in active participation through classroom and field study.

**Assessment/Examination Scheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

1. Urban Regeneration Handbook, Roberts and Sykes, Sage
2. Urban Planning and Development Process in Renewal, D. Adams, UCL press, London.
3. Management of Regeneration, Diamond and Little, Routledge, London.
4. An Introduction to Urban Renewal, Michael Gibson, Hutchinson.
5. Urban Renewal: Theory and Practice, Chris Coch, Macmillan.
6. Gentrification and Urban Change, Ray Huthinson, JAI press.



## Course structure: Elective I: Planning for Tourism – MURP305

**Course Title: Elective I: Planning for Tourism**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP305**

**Course Objectives:**

- To introduce the principles of planning for tourism in various tourism contexts and developing appropriate planning strategies and tools.

**Pre-requisites:** The students must possess fair understanding of planning for tourism in various tourism contexts

**Course Contents/Syllabus:**

	Weightage (%)
<b>Module1: Planning for Leisure and Tourism -</b>	25%
<b>Descriptors/Topics</b> Key Determinant; Characteristics of Tourism Sectors; Differences Between Leisure and Business Tourism. Types of Tourism: Cultural Tourism, Eco-Tourism, Heritage Tourism, Adventure Tourism, Religious Tourism, Leisure Destination Tourism; Characteristics of Each and Planning Implications	
<b>Module2: Social Factors Shaping Leisure;</b>	25%
<b>Descriptors/Topics</b> International Tourism Trends; Factors and Impact on National Tourism Markets, Regional Context of tourism Locations, Circuit Identification and Destination Planning	
<b>Module3: Tourism Infrastructure-</b>	25%
<b>Descriptors/Topics</b> Definition and Classification; Tourism as a Burden on Local Infrastructure, Tourism and Economy- Impact on Livelihoods and Local Communities	
<b>Module4: Tourism Plans-</b>	25%
Components, Time Frame, Actors, Cost and Revenue, Etc., National Policies Affecting Tourist Inflow, Role of Multiple Government Authorities and Agencies Involved in Tourism Development; Private Players in Tourism Development.	

**Student Learning Outcomes:**

- The outcome of this course is the application of the principles of planning for tourism in various tourism contexts and developing appropriate planning strategies and tools.

**Pedagogy for Course Delivery:**

- The course will use a mix of theory, presentations and literature study with hands on exercises of housing layout. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

1. Modelling Transport (2011), Juan De Dios Ortuzar, Luis G. Willumsen, Publisher: John Wiley & Sons
2. Integrated Land Use and Transport Modelling, Author: Tomas De La Barra, Publisher: Cambridge University Press.
3. Location, Transport and Land-Use: Modelling Spatial -Temporal Information, by Yupu Chan, Publisher: Springer
4. The Economics of Transport: A Theoretical and Applied Perspective, Jonathan Cowie, Routledge
5. Transportation Engineering and Planning, C. S Papacostas, P. D Prevedouros PHI Learning

**References:**

- Tourism Planning: Basics, Concepts, Cases, Clare A. Gunn
- Contemporary Issues in Tourism Development, D.G. Pearce, ed, Routledge
- Cultural Tourism and Sustainable Development, L.F. Girard ed.
- Event Tourism: Critical Concept in Tourism
- Sustainable Tourism Management, John Swarbook
- Tourism and Poverty Reduction: Pathways to Prosperity, J Mitchell
- Tourism and the Less Developed World: Issues and Case Studies, David Harrison
- Tourism Infrastructure Development: Sustainable Approach, Manoj Sharma





## Course structure: Elective I: Quantitative Methods and Systems Analysis MURP306

Course Title: Elective I: Quantitative Methods and Systems Analysis  
Course Level: PG Level

Credit Units: 03  
Course Code: MURP306

### Course Objectives:

- To familiarize with the functioning of Statistical data analysis software for performing different quantitative data analysis methods on census data.
- To develop interdisciplinary understanding and sensitivities of future planners.

**Pre-requisites:** The students must possess fair understanding of the quantitative methods for decision making.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module1: Introduction to Statistical data analysis software and its applications in planning</b>	50%
<b>Descriptors/Topics</b> Introduction to SPSS/any other available software, Data Analysis with SPSS/other available software. General Description and Function of SPSS, SPSS file Management; Input and data cleaning, definition variable, manual input of data, Automated input of data and file import; Data Manipulation such as Data Transformation, Syntax files and scripts and Output management; Methods for statistical data analysis e.g. Correlation, Regression, Hypothesis testing; Interpretation of results and drawing meaningful inferences. Students needs to work on census data for learning the functionality of SPSS.	
<b>Module2: Project Work</b>	50%
Selection and understanding of case study; Formulation of Aim and Objectives, Collection of data through primary and secondary sources; Conducting survey; Database development using relevant and advance software; Qualitative and quantitative data analysis; Report writing and presentations.	

### Student Learning Outcomes:

Operate SPSS/other statistical analysis software for handling census data analysis and drawing meaningful inferences.

Prepare the detail report and presentation on a given project related to available census data.

### Pedagogy for Course Delivery:

- The course will use an approach of analysis for planning studio, making computer drawings after physical, social-economic survey. Participants are encouraged to engage in active interaction through classroom participation.



## Text Books:

- Field, A. (2013). Discovering statistics using IBM SPSS statistics. Statistics (Vol. 58). SAGE Publications Ltd.
- Field, A. (2005). Discovering statistics using SPSS (2nd ed.). Discovering statistics using SPSS (2nd ed.). Sage Publications, Inc. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2005-05622-000&site=ehost-live>
- Introduction to SPSS. (2012). In Statistical Methods for Practice and Research: A Guide to Data Analysis Using SPSS (pp. 15–27). SAGE Publications India Pvt Ltd. <https://doi.org/10.4135/9788132108306.n1>

## References:

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- Discovering statistics using R. (2012). Choice Reviews Online, 50(04), 50-2114-50– 2114. <https://doi.org/10.5860/choice.50-2114>
- Marques De Sá, J. P. (2007). Applied statistics using SPSS, STATISTICA, MATLAB and R. Applied Statistics Using SPSS, STATISTICA, MATLAB and R (pp. 1–505). Springer Berlin Heidelberg. <https://doi.org/10.1007/978-3-540-71972-4>

## Assessment/ExaminationScheme:

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

## Suggested Readings:

1. Principles of Operations Research, Harvey M Wagner, Prentice-Hall
2. Operations Research – Principles and Application, G Srivastava, PHI Prentice-Hall
3. Operations Research, Hamdy A Taha, MacM



# AMITY UNIVERSITY

MADHYA PRADESH

*Established vide Government of Madhya Pradesh Act No. 27 of 2010*



## Course structure: Studio – III (Regional Planning) – MURP308

**Course Title:** Studio – III (Regional Planning)

**Credit Units:** 07

**Course Level:** PG Level

**Course Code:** MURP308

### Course Objectives:

The studio is designed to expose the students to issues of regional planning and equip them with knowledge and techniques to enable them to analyze urban situations and develop logical decision making processes to address the complex overlays of conceptualization, implementation and finance.

**Pre-requisites:** The students must possess fair understanding of regional planning.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module- I- Regional Planning</b>	<b>100%</b>
<b>Descriptors/Topics</b> The studio is designed to study one particular urban area and analyze its issues and develop spatial plans with thrust on critical sectors. It focuses on the preparation of integrated development plan for a selected urban area analyzing all aspects of physical planning including socio-economic factors and physical infrastructure and also formulation of methods of implementation and projection. The course deliverables would be designed based on specific projects undertaken, keeping in mind the overall objective of the course. <ul style="list-style-type: none"> <li>• Identification of an urban area</li> <li>• Identification and Formulation of Planning Objectives for the project</li> <li>• Survey of the study area. Data collection through primary and secondary surveys</li> <li>• Analyses and presentation of data and information</li> <li>• Review of Planning Objectives post data analysis; redefining objectives</li> <li>• Planning for urban area and its region (structure plan / development plan) with emphasis on: Land use, transportation networks and Infrastructure networks</li> <li>• Preparation of Detailed Project Report (case specific)</li> <li>• Identification and Detailing of Action Area, Local Area plans or Project Plans (case specific)</li> <li>• Plan Implementation strategies: Stake holder participation, project funding options</li> <li>• Implementation strategies including urban governance and management issues</li> </ul>	

### Student Learning Outcomes:

- The outcome of this studio is the preparation of a regional development plan for a selected area.

### Pedagogy for Course Delivery:

- The course will use a GIS for making computer drawings and tutorial. Participants are encouraged to engage in active interaction through classroom participation.

### Assessment/Examination Scheme:

Components	Mid-Term	Assignment	Attendance	End Term (VV)
Weightage(%)	NA	45	5	50



**Coursestructure: Seminar – III (RESEARCH METHODOLOGY AND THESIS PLANNING) – MURP308**

**Course Title: Seminar – III (RESEARCH METHODOLOGY AND THESIS PLANNING)**

**Credit Units: 02 Course Level: PG Level**

**Course Code: MURP308**

**CourseObjectives:**

- To equip students with good research qualities and ethics.
- To prepare students to plan their thesis in an effective manner well in advance.
- Students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation.

**Pre-requisites:** The students must possess fair understanding of all subject studied in first semester and implement all with the coordination on a specific topic related to current scenario of urban or regional planning.

**CourseContents/Syllabus:**

	Weightage (%)
<b>Module 1: Introduction to Research and Research Ethics</b>	
<b>Descriptors/Topics</b> Definition of Research, types, Basics of academic and applied research; Different Approaches to research; Elements of research: epistemology, theoretical perspective, methods, methodology; Justification of Choice and use of Methods and Methodology; Paradigms in Research. Knowledge on act of plagiarism; Prior permission and intimation form the source; Time management in research; Conduct of interview, asking right question, confidentiality, elimination of researcher biases; Role and Responsibility of Researcher.	100%
<b>Module 2: Research Communication</b>	
<b>Descriptors/Topics</b> Research vocabulary, Reading- notes taking, material organization, indexing; Technical Writing- Content synthesizing, paraphrasing, citation and referencing; APA referencing system, Use of Mendeley in Reference Management; Academic writing- Research Proposal, Synopsis, Abstract writing, Report Writing and mapping; Presentation: effective content structuring, oral communication, voice modulation, body language, audio-visual aids, handouts.	
<b>Module 3: Developing Thesis</b>	
<b>Descriptors/Topics</b> <ul style="list-style-type: none"><li>• Identification of topic of interest having relevance to planning profession, integration and application of the learnt research processes to the pre-thesis work</li><li>• Book reviews and journal article compilation to establish the body of work existing in the</li></ul>	



<ul style="list-style-type: none"> <li>• Collection of data and opinions by the stakeholders, decision makers, urban managers, advocates, technocrats, user groups, etc. on the topic selected.</li> <li>• Based on the literature review and inputs from the colloquial arguments, the topics shall be finalised for thesis in the subsequent semester.</li> <li>• Selection of study area, identification of extent and spread of intervention; collection of data for preparation of base map.</li> <li>• Development of research thrust and work methodology. Identification of data sources.</li> <li>• Data collection and analysis: sample determination, data tabulation (coding, de-coding, etc.), quantitative and qualitative data analysis. Appropriate and relevant data analysis methods would need to be studied by individual students based on thesis topic and research area.</li> </ul>	
<b>Module 4: Development of thesis structure</b>	
<p>Descriptors/Topics</p> <p>Finalization of topic; formulation of problem statement, literature review, working hypothesis, research brief, research methodology, sample determination, data collection and analysis, report structuring. The student will be required to make two seminar presentations and submit a report at the end of the semester which will qualify as the literature review and research methodology component of his/her thesis in the forthcoming semester.</p>	

### Student Learning Outcomes:

- The outcome of this course is to provide a platform for students of planning to get interactive and put forward their point of views by involving themselves into Group Discussions and Presentation related to Physical planning, Planning issues, Planning policies, Planning interventions and Case Studies etc

**Pedagogy for Course Delivery:** students shall prepare a three set of report in a prescribed format containing the details of the work done during the semester period which shall include the work report, field documentation and drawings on which students have worked.

### Text Books:

1. Taylor, G. (2009). A Student’s Writing Guide: How to Plan and Write Successful Essays. Social Sciences (p. 266). Retrieved from <http://www.cambridge.org/9780521729796>
2. Wentz, E. A. (2017). How to Design, Write, and Present a Successful Dissertation Proposal. How to Design, Write, and Present a Successful Dissertation Proposal. SAGE Publications, Ltd. <https://doi.org/10.4135/9781506374710>

### Reference Books:

1. American Psychological Association. (2010). APA Sixth Edition. Intellectual Property (Vol. 1968, p. 272). <https://doi.org/10.1006/mgme.2001.3260>
2. Chinelo Lgwenagu, (2016): Fundamental of Research Method and data collection, British Council, Research Gate

### Assessment/ExaminationScheme:

Components	Report	Log Book	Viva (Internal)	End Term (VV)
Weightage(%)	10	10	30	50



## Course structure: Elective II: Planning for Special Areas - MURP309

**Course Title: Elective II: Planning for Special Areas**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP309**

### Course Objectives:

- To introduce the students to various Special Areas with their specific planning needs and priorities and the implication on development in these areas.

**Pre-requisites:** The students must possess fair understanding of the special Areas with their specific planning

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Introduction of Special Area Planning</b>	
<b>Descriptors/Topics</b> Need for Special area planning, types of special areas and their defining characteristics. Evolution of special planning areas under the distinct geophysical structure, location, extreme backwardness etc. Planning commission approaches for identification of special areas.	30%
<b>Module 2: Regulation and Norms</b>	30%
Legislations and norms for Special Area Development in the Indian context.	
<b>Module 3: Consideration for Special Area Planning</b>	20%
Planning for Special Areas under consideration would include Formal and Functional Regions (Hill Areas, Coastal Areas, Desert Areas, Extremist Affected Area, Special Economic Zones, Port City, Aerotropolis, Medi-City, Knowledge City etc.).	
<b>Module 4: Funding and Management Aspects</b>	20%
Capital investment and funding methods, public-private partnerships in the development process. Governance and Management aspects. Case Studies of various typologies of Special Area Development Plans in Indian and international context.	

### Student Learning Outcomes:

- The outcome of this course is to introduce the students to various Special Areas with their specific planning needs and priorities and the implication on development in these areas.

### Pedagogy for Course Delivery:

- The course will use a mix of theory, presentations and literature study with hands on exercises of housing layout. Participants are encouraged to engage in active interaction through classroom participation



**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Suggested Readings:**

1. Development of Hill Areas, Dobha G.L, Concept Publishing
2. Environmental Problems of Coastal Areas in India, Sharma Vinod, Bookwell
3. Integrated Development of Hill Districts in India : Issues and Approaches, Gupta, R.C., SPACE
4. Special Economic Zones In India, P. K. Manoj, Serials Publications
5. Aerotropolis:The Way We'll Live Next, John Kasarda, Allen Lane
6. Environmental act in india, Ruma Chatterjee, Oxford University Press
7. CRZ Regulations, 2011, MoEF





## Course structure: Elective II: Sustainable Planning Practices - MURP310

**Course Title: Elective II: Sustainable Planning Practices**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP310**

### Course Objectives:

- The objective of this course is to familiarize students with the concept of sustainable development and develop skills to understand emerging aspects of sustainable planning practices. The course is aimed at making the students aware of different planning and management practices adopted worldwide for minimizing the adverse impacts of human actions on environment and society, as also understand strategies that seek to proactively manage these issues.

**Pre-requisites:** The students must possess fair understanding of the concept of sustainable development

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Introduction of Sustainable Development</b>	
<b>Descriptors/Topics</b> Overview of Sustainable Development Concept - Definitions, Concepts and Parameters in Sustainable Development with Particular Reference to Brundtland Commission and Agenda 21; Eco-City Approach; United Nations Framework Convention on Climate Change; Conference of Parties: Kyoto Protocol, Intergovernmental Panel on Climate Change, National Communication Process, Indian Network of Climate Change Assessment, Global Environment Facility, Clean Development Mechanism. Application of Ecological Principles in Sustainability; Carrying Capacity Based Planning: Concept, Parameters and Indicator Measures, Models and Case Studies in Urban and Regional Development	30%
<b>Module 2: Impacts of Climate Change</b>	30%
<b>Descriptors/Topics</b> Basics of Climate Change: Greenhouse Gases, Anthropogenic Causes, Carbon Cycle, Global Warming; Inventory of GHGs; Urban Heat Islands; Climatic Change and Human History, Economy, Energy and Environment. Impacts of Climate Change: Climate as Forcing Variable, Location Attributes, Sensitivity and Vulnerability of Different Sectors, Extreme Events and their Effects	
<b>Module 3: Settlement Planning and Environmental Impact and Strategic</b>	20%
<b>Descriptors/Topics</b> Settlement Planning; Urban Environmental Management and Planning; Human Activities and Energy in Cities; Contribution to GHGs; Sectoral Contributions; Urban Environmental Simulators. Environmental Impact and Strategic Environmental Assessment for Urban Areas (through Case Studies); Ecological Footprint Analysis of Cities; Sustainable Lifestyle Assessment and Behavioral Modifications at Household Levels. Concept of 3-Rs: "Recycle-Reuse and Recovery"; Concepts of Industrial Symbiosis and Ecology; Case Study of Waste Recycling: Its Cost Effectiveness and Options; Examples of Best Practices	
<b>Module 4: Land Capability and Suitability Analysis and its Measures</b>	20%

**Descriptors/Topics**

Land Capability and Suitability Analysis in Locating and Planning for Urban Land Uses. Compact City Concept - Implications of Urban Form, Density, Land Use Pattern and Transportation System in Land and Energy Conservation; Use of Non-Conventional Energy Sources in Urban Development. Urban Interference in Hydrological Cycle with Particular Reference to Water Pollution, Water Resources, Drainage and Natural Ecosystems; Urban Water Treatment, Recycling and Harvesting. Pollution Control Measures for Industrial Wastes, Hazardous Wastes, Biomedical Wastes, Domestic Waste Water, Air Pollutants and Noise. Cleaner Production Concepts and Practice through Case Study of a Functional Industrial Estate

**Student Learning Outcomes:**

- The outcome of this course is to familiarize students with the concept of sustainable development and develop skills to understand emerging aspects of sustainable planning practices.

**Pedagogy for Course Delivery:**

- The course will use a mix of theory, presentations and literature study with hands on exercises of housing layout. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ExaminationScheme:**

Components	Mid-Term	Assignment	Attendance	End Term (EE)
Weightage(%)	20	25	5	50

**Suggested Readings:**

1. Eco-City Planning: Policies, Practice and Design, Tai-Chee Wong and Belinda Yuen, Springer
2. Green Cities, Growing Cities, Just Cities? Scott Campbell, Urban Planning and the Contradictions of Sustainable Development, Journal of The American Planning Association
3. Cities and Climate Change, OECD Publishing OECD (2010)
4. The Economics of Low Carbon Cities: A Mini-Stern Review for the Leeds City Region, Andy Gouldson et al., The Centre for Low Carbon Futures Partnership, University of Hull, University Of Leeds
5. AITP Reader on Ecology & Resource Development, AITP
6. AITP Reading Material on Environmental Planning and Design, Prof A. K. Maitra , SPA Delhi
7. Best Practices Environment, The Economist, Intelligence University Press



## Coursestructure: Summer Internship (Evaluation) - MURP311

**Course Title: Summer Internship (Evaluation)**

**Credit Units: 03**

**Course Level: PG Level**

**Course Code: MURP311**

### Course Objectives:

- To expose the students to the profession of planning and foster links with the industry so as to develop an understanding of professional nature of various organizations involved in the planning profession. The student is required to undertake summer training after 2 semesters of course work in any government, private or research organization undertaking urban and regional planning works. The practical training will commence during the summer break between second and third semester.

**Pre-requisites:** The students must possess fair understanding of the professional nature of various organizations involved in the planning profession.

### CourseContents/Syllabus:

	Weightage (%)
<b>Module 1:</b>	
<b>Descriptors/Topics</b> <ul style="list-style-type: none"> <li>The student is expected to work on any project/s related to urban planning or any specialization such as infrastructure planning, environmental planning, transportation planning, housing etc.</li> <li>Individual contribution of the student in the project handled, in any of the stages of work undertaken (data analyses, project formulation, policy framing etc.) is expected.</li> <li>Each student shall have to undergo professional training for a period of at least 6 weeks in an establishment approved by the class coordinator and professor in charge.</li> <li>A student will be required to submit a performance report from the planner under whom training is undertaken as well as a detailed report on the work carried out by him during the training.</li> <li>The contents of the report should include brief introduction of organization and works undertaken, description of project/s worked on, role of individual student supported by data/evidences from the organization.</li> <li>The students would be evaluated on the basis of the report submitted and presented as a seminar at the time of viva-voce and the report received from the organization.</li> </ul>	<b>100%</b>

### Student Learning Outcomes:

- The outcome of this course is to expose the students to the practical environment and works by working under a planning firm/organization.
- To gain a practical knowledge and involved in all aspects of office works.

### Pedagogyfor Course Delivery:

- The course will use a mix of theory, presentations and literature study with hands on exercises of housing layout. Participants are encouraged to engage in active interaction through classroom participation.

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Report</b>	<b>Log Book</b>	<b>Viva (Internal)</b>	<b>End Term (VV)</b>
<b>Weightage(%)</b>	<b>10</b>	<b>10</b>	<b>30</b>	<b>50</b>



## Course structure: Financing Development – MURP401

**Course Title: Financing Development**

**Course Level: PG Level**

**Course Objectives:**

- The course attempts to understand the theoretical basis for various concepts related to financing development of Planning and learn the practices in the Indian context.

**Credit Units: 03**

**Course Code: MURP401**

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Financing: Introduction</b>	
<b>Descriptors/Topics</b> Methods of Financing: Fiscal Transfers under Constitution, 73rd and 74th Constitution Amendment Act and funding, Central and State Finance Commissions. Own Source funding, Equities, debt financing, sell out, refinancing, co-financing, and venture capital issues in Project financing.	20%
<b>Module 2: Role of Finance Commissions</b>	
<b>Descriptors/Topics</b> Distribution of revenues between union and state: Finance Commissions- Historical perspective, role of CFCs (First to 13th CFC). Deviations in sharing formula by 13th CFC and its impact on urban and rural infrastructure provision. Service level Bench marks in infrastructure and related funds transfer. State Finance Commissions and fund transfers to local bodies: Issues and recommendations.	30%
<b>Module 3: Reforms at Local Level</b>	
<b>Descriptors/Topics</b> Property Tax Reforms, Accounting Reforms and Accounting Standards, Own Source Financing. Credit Rating of Bonds, Pooled Financing of projects: Standards and regulations.	20%
<b>Module 4: PPP as a Funding Option and PPP Management</b>	
<b>Descriptors/Topics</b> Conditionality for PPP, Contract Architecture, PPP Design and execution, Responsibility, cost and benefit sharing, types of PPP. PPP Case studies from various sectors: Best and worst practices. Legal issues in PPP. PPP and inclusive development.	30%

### Student Learning Outcomes:

- The outcome of this course is to provide knowledge and implementation of resource mobilisation and intergovernmental fiscal relations, state grants and shared taxes of local bodies, municipal finance, property tax, institutional approaches, capital Investments and other new initiatives for financing development.

### Pedagogy for Course Delivery:

- The course will use a mix of theory, presentations and literature study. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

1. Regional Planning –Concepts, Techniques, Policies and Case Studies, Misra, R.P., New Delhi
2. Regional Development Planning in India, R.P Mishra, Vikas, Delhi.
3. Regional Planning and Development, Qaiyum, A., ITPI, New Delhi
4. Regional Planning and Development, Rangasamy, S., Madurai
5. An Introduction to Regional Planning – Concept, Theory and Practice, Glasson, John: Susesex

**References:**

- GoI: Ministry of Rural Development, Department of Land Resource, Desert Development Programme, New Delhi
- GoI: Planning Commission, Report on Development of Drought Prone Areas by National Committee on the Development of Backward Areas, New Delhi
- GoI: IWMP, Ministry of Rural Development, New Delhi GoI: Ministry of Development of North Eastern Region, New Delhi



## Course structure: Legal Issues in Planning – MURP402

**Course Title: Legal Issues in Planning**

**Course Level: PG Level**

**Course Objectives:**

**Credit Units: 03**

**Course Code: MURP402**

- The course attempts to understand the theoretical basis for various concepts related to legal issues concern with Planning and learn the legal issues practices in the Indian context.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Law, Indian Constitution Evolution of Planning Legislation</b>	
<b>Descriptors/Topics</b> Sources of law: custom, legislation and precedent; Meaning and terms of law: legislation, ordinance, bill, act, regulation, and bye-laws; Significance of law and its relationship to urban and regional planning, benefit of statutory backing, eminent domain powers and police powers; Concepts and contents related to planning, provision regarding property rights, legislative competence of Local, State and Central government to deal with various matters concerning Town and Country Planning; An over view of legal tools connected with urban and regional planning and development. Town and Country Planning Act, Improvement Trust Act, Development Authorities Act: objectives, content, procedures for provision an iPLNementation of regional plans, master plans and town planning schemes; Concept of Arbitration, betterment levy development charges and public participation in statutory planning process, concept of structure plan, local plan and action plan under the Law.	20%
<b>Module 2: Policy and Acts</b>	
<b>Descriptors/Topics</b> National Environmental Policy Act; Environmental Protection Act; Land Acquisition Act: Concepts, procedure for compulsory acquisition of property and determination of compensation. Acts pertaining to SEZ; disaster management, and legal aspects of innovative techniques such as Transfer of Development Rights, Accommodation Reservation (AR), Air Rights, etc.	30%
<b>Module 3: Habitat Laws and Significance of Land Development Control</b>	
<b>Descriptors/Topics</b> Laws relating to Slum Clearance, environment, housing, landscape and traffic, Laws relating to conservation and restoration, historical monuments, archaeological sites and remnants of national importance; contract management and execution of projects; Objectives of legal tools, critical evaluation of zoning, sub-division regulations, building regulations and bye-laws, development code zoning, periphery control, land conversion in the peri-urban areas.	20%
<b>Module 4: Professional Practice</b>	

<b>Descriptors/Topics</b> Aims and objectives of professional institute, sister bodies, professional role and responsibility of planning consultants, professional ethics and code of conduct and scale of professional charges. International Agreements (GATT and WTO) and its impact in India. Formulation of Consultancy project proposal and outlines (EOI, RFP, etc); Formulation of Consultancy Contract Agreement and Contract Management Scale of Professional Charges, and Collaborative projects; Role of Inter-Disciplinary groups; appreciation of decision making process and the process in relation to varied consultancy assignments in planning.	<b>30%</b>
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**Student Learning Outcomes:**

- The outcome of this course is to understand the complexity of legal issue in urban planning with gaining knowledge of various acts, policies, programmes and government resolution practice by national and state government, international affairs; professional practice in planning.

**Pedagogy for Course Delivery:**

The course will use a mix of theory, presentations and literature study. Participants are encouraged to engage in active interaction through classroom participation

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Mid-Term</b>	<b>Assignment</b>	<b>Attendance</b>	<b>End Term (EE)</b>
Weightage(%)	20	25	5	50

**Text Reading:**

6. Regional Planning –Concepts, Techniques, Policies and Case Studies, Misra, R.P., New Delhi
7. Regional Development Planning in India, R.P Mishra, Vikas, Delhi.
8. Regional Planning and Development, Qaiyum, A., ITPI, New Delhi
9. Regional Planning and Development, Rangasamy, S., Madurai
10. An Introduction to Regional Planning – Concept, Theory and Practice, Glasson, John: Susesex





## Course structure: Thesis – MURP403

**Course Title: Thesis**

**Credit Units: 18**

**Course Level: PG Level**

**Course Code: MURP403**

### Course Objectives:

- To introduce students to literature review, research processes, techniques and colloquial arguments, so as to help them finalize a topic for their thesis in the subsequent semester. Two seminars would be conducted in the course of the semester to initiate the process of literature review related to their areas of interest culminating in selection of an appropriate thesis topic.

**Pre-requisites:** The students must possess fair understanding of the research processes, techniques in urban and regional planning.

### Course Contents/Syllabus:

	Weightage (%)
<b>Module 1: Law, Indian Constitution Evolution of Planning Legislation</b>	
<b>Descriptors/Topics</b>	
<ul style="list-style-type: none"> <li>Identification of topic of interest having relevance to planning profession, integration and application of the learnt research processes to the pre-thesis work</li> <li>Book reviews and journal article compilation to establish the body of work existing in the selected area of work</li> <li>Collection of data and opinions by the stakeholders, decision makers, urban managers, advocates, technocrats, user groups, etc. on the topic selected.</li> <li>Based on the literature review and inputs from the colloquial arguments, the topics shall be finalized for thesis in the subsequent semester.</li> <li>Selection of study area, identification of extent and spread of intervention; collection of data for preparation of base map.</li> <li>Development of research thrust and work methodology. Identification of data sources.</li> <li>Data collection and analysis: sample determination, data tabulation (coding, decoding, etc.), quantitative and qualitative data analysis. Appropriate and relevant data analysis methods would need to be studied by individual students based on thesis topic and research area.</li> <li>Finalization of topic; formulation of problem statement, literature review, working hypothesis, research brief, research methodology, sample determination, data collection and analysis, report structuring.</li> </ul>	<b>100%</b>
The student will be required to make two seminar presentations and submit a report at the end of the semester which will qualify as the literature review and research methodology component of his/her thesis in the forthcoming semester.	

### Student Learning Outcomes:

- The outcome of this course is to develop independent critical thinking and design/research abilities and apply the knowledge gained, skills developed and professionalism inculcated over the last three semesters in an exercise of own interest and significant complexity.

**Pedagogy for Course Delivery:**

- The thesis will use an approach of data collection, analysis, making computer drawings after physical, social-economic survey and prepare a final report related to research question. Participants are encouraged to engage in active interaction through studio participation.

**Assessment/ExaminationScheme:**

<b>Components</b>	<b>Report /Sheets</b>	<b>Log Book/Progress</b>	<b>Viva (Internal)</b>	<b>End Term (VV)</b>
<b>Weightage(%)</b>	<b>100</b>	<b>150</b>	<b>50</b>	<b>300</b>

**Text Reading:**

1. Town and Country Planning Act (any State Act)
2. Model Municipal Act, Ministry of Urban Development, Government of India
3. Nagar Raj Act (any State Act )
4. Environment Protection Act (Central Act)
5. Mining and Forestry Act (Central Act)
6. Building Byelaws (any State Act )