# MBS College

Sector-9, PSP Area, Dwarka, New Delhi-110077

**Affiliated to GGSIPU and Approved by CoA & AICTE**

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## ANNEXURE 3E

## Teaching Schedules : AS 2025-26

## B.Arch, BBA and BCA Programme



# MBS COLLEGE
# ACADEMIC SESSION
# 2025-26

# TEACHING SCHEDULES
# B.Arch

# MBS College

Sector 9, PSP Area, Dwarka, New Delhi - 110077
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## Academic Session 2025-26 (Odd Semester)

Teaching Schedules

### B. Arch – 1st Year | Semester 1

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 101 | Architectural Design I | Studio |
| AP 103 | Building Construction I | Studio |
| AP 105 | Architectural Drawing I | Studio |
| AP 107 | Art and Architectural Graphics I | Studio |
| AP 109 | Workshop (NUES) I | NUES |
| AP 111 | Surveying & Levelling (NUES) | NUES |
| AP 121 | Theory of Structure I | Theory |
| AP 123 | History of Arch. I | Theory |
| AP 125 | Building Material & Science I | Theory |
| AP 127 | Environmental Studies | Theory |

### B. Arch – 2nd Year | Semester 3

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 201 | Architectural Design III | Studio |
| AP 203 | Building Construction III | Studio |
| AP 205 | Architectural Drawing III | Studio |
| AP 207 | Art & Architectural Graphics I | Studio |
| AP 221 | Theory of Structure III | Theory |
| AP 223 | History of Architecture III | Theory |
| AP 225 | Building Material Science III | Theory |
| AP 227 | Water S and Waste Management | Theory |
| AP 229 | Sociology | Theory |

## B. Arch – 3rd Year | Semester 5

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 301 | Architectural Design V | Studio |
| AP 303 | Building Construction V | Studio |
| AP 321 | Theory of Structure V | Studio |
| AP 323 | History of Architecture V | Studio |
| AP 325 | Building Material Science V | Studio |
| AP 327 | Energy and Fire Safety I | Studio |
| AP 329 | Quantity and Estimation | Studio |
| ***Electives*** | | |
| AP 343 | Urban Issues I | Studio |
| AP 353 | Interior Design I | Studio |

## B. Arch – 4th Year | Semester 7

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 401 | Architectural Design VII | Studio |
| AP 403 | Building Construction VII | Studio |
| AP 405 | Seminar | Studio |
| AP 421 | Theory of Structure VII | Theory |
| AP 423 | Town Planning I | Theory |
| ***Electives*** | | |
| AP 453 | Advance Architectural Theories | Studio |
| AP 455 | Intelligent Buildings | Studio |

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## Academic Session 2025-26 (Even Semester)

Teaching Schedules

### B. Arch – 1st Year | Semester 2

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 102 | Architectural Design II | Studio |
| AP 104 | Building Construction II | Studio |
| AP 106 | Architectural Drawing II | Studio |
| AP 108 | Art Appreciation & Architectural Graphics II | Studio |
| AP 110 | Workshop (NUES) I | NUES |
| AP 122 | Theory of Structure I | Theory |
| AP 124 | History of Arch. II | Theory |
| AP 126 | Building Material & Science II | Theory |
| AP 128 | Climatology | Theory |
| AP 130 | Architecture & Writing | Theory |

### B. Arch – 2nd Year | Semester 4

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 201 | Architectural Design IV | Studio |
| AP 203 | Building Construction IV | Studio |
| AP 205 | Architectural Drawing IV | Studio |
| AP 207 | Art Appreciation & Architectural Graphics II | Studio |
| AP 222 | Theory of Structure IV | Theory |
| AP 224 | History of Architecture IV | Theory |
| AP 226 | Building Material Science IV | Theory |
| AP 228 | Lighting and Acoustics | Theory |
| AP 230 | Psychology of Spatial Relationship | Theory |

## B. Arch – 3rd Year | Semester 6

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 302 | Architectural Design VI | Studio |
| AP 304 | Building Construction VI | Studio |
| AP 322 | Theory of Structure VI | Theory |
| AP 324 | Codes of Practice & Building Bye Laws | Theory |
| AP 326 | HVAC and Security Systems | Theory |
| AP 328 | Energy and Building II | Theory |
| AP 330 | Specification & Contract Management | Theory |
| ***Electives*** | | |
| AP 344 | Urban Issues II | Studio |
| AP 354 | Interior Design II | Studio |

## B. Arch – 4th Year | Semester 8

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 402 | Architectural Design VIII | Studio |
| AP 404 | Building Construction VIII | Studio |
| AP 406 | Research/ Dissertation | Studio |
| AP 422 | Town Planning II | Theory |
| ***Electives*** | | |
| AP 454 | Architectural Conservation | Studio |
| AP 448 | Universal Access Enabled Environment | Studio |

## B. Arch – 5th Year | Semester 10

| Subject Code | Subject Name | Type |
|---|---|---|
| AP 502 | Architectural Thesis | Studio |
| AP 522 | Professional Practice | Studio |

# MBS COLLEGE

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## B. ARCH PROGRAM: TEACHING SCHEDULE: FOR AY 2025-26

| | |
|---|---|
| **Year: 1st Year** | **Semester : Sem 1** |
| **Subject Code: AP- 101** | **Subject: ARCHITECTURAL DESIGN -I** |
| **Subject Type: Studio** | **Credits: 06** |
| **Internal Assessment:40 marks** | **External Assessment (UE):60 Marks** |

**OBJECTIVE:**

To learn principles of Space Form relationship in Architecture and to develop understanding of immediate context and to learn representation of ideas through sketches, drawings, and three dimensional models.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|---|
| 1 | WEEK 1 | INTRODUCTION TO ARCHITECTURE AND ARCHITECTURAL INSTRUMENTS.<br><br>INTRODUCTION TO FORMAT, SHEET SIZE AND PROPORTION OF SHEET.<br><br>INTRODUCTION TO ELEMENTS OF ARCHITECTURAL DESIGN & HAND DRAFTING (POINT, LINE, CIRCLE, &POLYGON ) | A2 SIZE SHEET WITH FORMAT (10) (Newspaper exercise)<br><br>THEME BASED COMPOSITION ON ELEMENTS OF DESIGN (10) |
| 2 | WEEK 2 | EMPHASIS ON UNDERSTANDING OF GEOMETRY AND ITS COMPOSITION<br><br>INTRODUCTION TO COLOUR, HATCHING, MATERIAL FINISH AND COMPOSITION PRESENTATION USING DIFFERENT MATERIALS. | THEME BASED COMPOSITION ON 2D & 3D SHAPES (10)<br><br>THEME BASED COMPOSITION USING COLOUR AND DIFFERENT MATERIALS(10) |

| | | | |
|---|---|---|---|
| | | INTRODUCTION TO PRINCIPLES OF ARCHITECTURAL DESIGN (BALANCE, REPETITION, DYNAMIC, HARMONY, RHYTHM, VARIETY, ABSTRACT & UNITY) | COMPOSITION BASED ON SYMMETRICAL & ASYMMETRICAL BALANCE 3-D COMPOSITION (10) |
| 3 | WEEK 3 | COMPOSITION BASED ON SYMMETRICAL & ASYMMETRICAL BALANCE 3-D COMPOSITION | COMPOSITION BASED ON SCALE & PROPORTION.(10) |
| 4 | WEEK 4 | INTRODUCTION TO ANTHROPOMETRY- STUDY OF HUMAN ACTIVITIES (AS INDIVIDUAL, GROUP & LIBRARY)<br><br>TO DEVELOP UNDERSTANDING OF BUILT OBJECTS AND SPACE IN RELATION TO ELEMENTS OF NATURE.<br><br>STUDY OF FURNITURE IN RELATION TO HUMAN ACTIVITY. EXERCISES TO DEVELOP UNDERSTANDING OF BUILT OBJECTS AND SPACE IN RELATION TO THE HUMAN SCALE | EXERCISE – STUDENTS TO CREATE THEIR OWN ANTHROPOMETRIC DATA BY MEASURING THEIR OWN BODIES. (10)<br><br>EXERCISE – STUDENTS TO CREATE THEIR OWN ANTHROPOMETRIC DATA BY MEASURING BODY POSTURES AND COMPARING WITH STANDARDS (10) |
| 5 | WEEK 5 | STUDY OF SPACE/FUNCTIONS IN RELATION TO HUMAN ACTIVITY.<br><br>**INTRODUCTION TO DESIGN PROBLEM**-LIBRARY /ANTHROPOMETRIC STUDY | SUBMISSION ON ANTHROPOMETRY (10) |
| 6 | WEEK 6 | INTRODUCTION TO **CASE STUDY** AND DISCUSSION ON **SITE ANALYSIS**<br><br>LECTURE ON **COVERED AREA, CARPET AREA , PLINTH AREA AND SITE AREA** | SUBMISSION OF CASE STUDY (50) |

| | | | |
|---|---|---|---|
| 7 | WEEK 7 | INTRODUCTION TO **'EVOLVING A CONCEPT'** | SUBMISSION OF SITE ANALYSIS (20) |
| 8 | WEEK 8 | FINALIZING OF CONCEPT - **SCHEMATIC DESIGN** | INDIVIDUAL SUBMISSION - CONCEPT OF DESIGN(20) |
| 9 | WEEK 9 | **MID TERM EXAMINATION** | |
| 10 | WEEK 10 | DISCUSSION ON DEVELOPMENT OF DESIGN (**PLANS, ELEVATIONS & SECTIONS**.) | |
| 11 | WEEK 11 | DISCUSSION ON **DEVELOPMENT OF DESIGN** (PLANS, ELEVATIONS & SECTIONS.) FINALIZING SCHEMATIC DESIGN | |
| 12 | WEEK 12 | SUBMISSION OF **PLANS, SECTIONS AND ELEVATIONS** | PLANS, ELEVATIONS AND SECTIONS |
| 13 | WEEK 13 | SUBMISSION OF **PLANS, SECTIONS AND ELEVATIONS** | |
| 14 | WEEK 14 | **FINAL PORTFOLIO REVIEW** | |
| 15 | WEEK 14 | **FINAL PORTFOLIO SUBMISSION** | |
| 16 | WEEK 15 | **GGSIPU Semester End Examinations and Evaluation** | |

**Suggested Books/Readings:**

- FORM, SPACE & ORDER- FRANCIS D.K. CHING

- TIME SAVER STANDARDS AND NEUFERT ARCHITECT'S DATA
- N.D. BHATT AND RENDERING WITH PEN & INK

**Prepared by: Ar. Divesh Wadhwa** **Signature** 1/08/2025

**Submitted on:** 01-08-2025

01-08-2025

**Director : Prof. Bijay Dash**

P. Arora
01-08-2025

**Dean: Prof. Praveen Arora**

# MBS SCHOOL OF PLANNING AND ARCHITECTURE

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## B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY 2025-26

| | |
|---|---|
| YEAR: 1st Year | SEMESTER: SEM 1 (ODD SEMESTER) |
| SUBJECT CODE: AP- 103 | SUBJECT TITLE: BUILDING CONSTRUCTION I |
| SUBJECT TYPE: STUDIO | CREDITS: 05 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objective – (As per GGSIPU Syllabus)**

- Learning the process and techniques of masonry construction and to learn to communicate information through drawings and models.
- Walls and piers with bonding techniques for block masonry including foundations, e.g. for brick masonry -English, Flemish bonds etc.
- Openings in masonry walls using spanning and load bearing techniques of corbelling, arches and lintels, domes.

**INTRODUCTION**

The subject is foundational course focusing on principal of load bearing structure particularly focusing on masonry techniques. The subject aims to develop an understanding of basic construction method and bonding patterns, foundations, openings. Material behavior through hands-on exercises. By integrating theoretical knowledge with studio-based exercise, model making and on-site observation the course lays the groundwork to conventional construction practices.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | WEIGHTAGE (Marks) |
|---|---|---|---|---|
| 1 | | **Introduction to Syllabus**<br>**Introduction to Building Elements**<br>• Types of elements<br>• Types of building<br>• Comparison between Ancient and Modern technique | **Assignment 1- (Individual Work)**<br>Sheets + Report | 5% |
| 2 | | **Introduction to Masonry Construction**<br>• Types of masonry<br>• Brick Bond- Header, Stretcher English, Flemish bond, Rat Trap Bond<br>• Brick Jali,<br>• Decorative Bond- Garden Wall, Pavers, Pedestrian | **Assignment 2- (Individual Work)**<br>Sheets + Model | 15% |
| 3 | | **Bonding technique in Block/ Stone Masonry**<br>• Rubble and Ashlar Masonry<br>• Tools and Technique | **Assignment 3- (Individual Work)**<br>Sheets + Model | 10% |
| 4 | | **Brick Masonry Foundation**<br>• Types of foundation<br>• Types of Soil | **Assignment 4- (Individual Work)**<br>Sheets | 5% |
| 5 | | **Damp Proof Course (DPC)**<br>• Purpose and application<br>• Plinth beam and Ground Beam | **Assignment 5- (Individual Work)**<br>Sheets + Report | 5% |

| | | | | |
|---|---|---|---|---|
| 6 | | **Masonry Piers and Column**<br>• Types<br>• Function | **Assignment 6- (Individual Work)**<br>Sheets + Model | 7% |
| 7 | | **Opening Techniques**<br>• Types of wall opening<br>• Standards sizes, placement | **Assignment 7- (Individual Work)**<br>Sheets + Report | 3% |
| 8 | | MID-TERM EXAMINATION | | |
| 9 | | **Spanning Technique**<br>• Corbelling<br>• Arches<br>• Domes | **Assignment 8- (Individual Work)**<br>Sheets + Model | 3% |
| 10 | | **Arches and Corbelling Techniques**<br>• Types<br>• Detailing and Construction | **Assignment 9- (Individual Work)**<br>Sheets + Report | 10% |
| 11 | | **Lintels Technique**<br>• Types<br>• Details | **Assignment 10- (Individual Work)**<br>Sheets + Report | 10% |
| 12 | | **Domes Technique**<br>• Types<br>• Material and Stability | **Assignment 11- (Individual Work)**<br>Sheets + Model | 7% |
| 13. | | **Field Exercise**<br>• Brick Bond, Arches, Brick jail Making | **Assignment 12- (Individual Work)**<br>Report | 10% |
| 14. | | **Site Visit**<br>• Red Fort/Jama masjid/ Agrasen ki Baoli | **Assignment 13- (Individual Work)**<br>Report | 5% |
| 15 | | **Pre Final Submission and Assessment**<br>• Report + Sheets + Model | Sheets + Report + Model | 95% (Academic Work)<br>+ 05% (Attendance) |
| 16 | | **Final Submission and Assessment**<br>• Report + Sheets + Model | Sheets + Report + Model | 95% (Academic Work)<br>+ 05% (Attendance) |

**LEARNING OUTCOMES**

- Identify various types of masonry units and bonding techniques
- Understand and represent brick and block masonry construction details.
- Develop hands-on skills through model making and construction exercises
- Build a foundational understanding for advanced topics in building construction and design.

**SUGGESTED BOOKS/READINGS:**

1. Barry, R. Construction of Buildings, East West Press Pvt. Ltd., New Delhi, 1999
2. Mckay, W.B.; Building Construction (Vol. I, II, III & IV), Orient Longman, London, 1988
3. Allen, Edward. Fundamentals of Building Construction: Materials and Methods, John Wiely& Sons, New York, 1999
4. Punamia B.C., Building Construction, Laxmi Publications (P) Ltd, New Delhi, 1993
5. Chudley, R.; Building Construction Handbook, Butterworth Heinemann, Oxford, 1988
6. Arora, S.P., and Bindra, S.P., Text Book of Building Construction, Dhanpat Rai Publications, 2010
7. Ching, F.D.K., Building Construction Illustrated, Van Nostrand, Reinhold, 5th edition, 2014

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**FACULTY DETAILS:**

| | SECTION A | SECTION B | SECTION C |
|---|---|---|---|
| **Subject Faculty Name** | | | |
| **Date and Signature** | | | |

**Prepared by:** Ar. Ravi Prakash Mishra **Signature**.....

**Prepared on:** 02. 07. 2025

**Director:** Prof. Bijay Dash 02/07/2025

**Dean:** Prof. Praveen Arora 21-08-2025

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## MBS SCHOOL OF PLANNING AND ARCHITECTURE

### TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| **Year : 1st ( I )** | **Semester : 1st ( I )** |
| **Subject Code : AP - 105** | **Subject : Architectural Drawing - I** |
| **Subject Type : Studio** | **Credits : 3** |

**Objective :**

- Learning drawing as a medium for expressing and representing ideas in architectural education and developing visualization and conceptualisation of objects through free hand sketches and drawings. Learning the importance of standard notations and practices in drawings.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| 1 | **Drafting Techniques** : Introduction to drawing instruments and drawing materials. Basis for architectural drawing, essence of line continuity, sharpness, darkness and weight. Freehand drawings | **Sheet 1** : Freehand Drawing |
| 2 | **Lettering and Annotations :** Introduction to architecture lettering in different heights and use of annotation on drawing titles | **Sheet 2 :** Lettering Submission |
| 3 | **Lines** : Horizontal/Vertical/Angular/Curves and Outlines/Construction Lines/Dimension Lines/ Centre lines/Section lines/Axis lines | **Sheet 3** : Types of Line |
| 4 | **Scale and Proportions** | **Sheet 4 :** Scale and Proportions |
| 5 | **Drawing Polygons :** Basic Geometry-Construction of Triangle, Square, Rectangle, Pentagon, Hexagon, Heptagon and Octagon | **Sheet 5** : Polygon |
| 6 | **Orthographic Projections** : Definition, Meaning and concept, Planes of Projections, First angle projections, Projection of Points, Lines and Planes in different positions. | **Sheet 6** : 1 Rectilinear and 1 Curvilinear Solid |
| 7 | **Orthographic Projections** : Rectilinear and Curvilinear solids parallel to both HP and VP. | **Sheet 7** : 1 Rectilinear and 1 Curvilinear Solid |

| | | |
|---|---|---|
| | **Sections of Orthographic Projections** : Rectilinear and Curvilinear solids at an angle to both HP and VP. | **Sheet No. 8** : Sections |
| 8 | **Isometric Drawing**- Rectilinear Solids and Curvilinear 3-D Solids<br>**Isometric Drawing- Asymmetric Solids** | **Sheet 9** : Isometric Drawing |
| 9 | **Axonometric Drawing**- Rectilinear Solids and Curvilinear Solids<br>Introduction to architectural drawings-plans, elevations, sections, views, measured drawing of simple building components. | **Sheet 10** : Isometric Drawing |
| 10 | **Mid Term Examination** | |
| 11 | **Introduction to Architectural Drawings** : plans, elevations, sections, views, measured drawing of simple building components | **Sheet 11** : Measured Drawing |
| 12 | Measured Drawing | |
| 13 | Rendering Techniques (Use of inking pens) | **Sheet 12** : Rendering Techniques |
| 14 | **Final Rendered Architectural Drawings with plans, sections and elevations** | |
| 15 | Revision and Doubt Clearing Session | |
| 16 | **Final Portfolio submission** | |

**Suggested Books/Readings:**

1. **Manual of Rendering with Pen and Ink**, *Gill, Robert W.*, Thames and Hudson, London, 1997
2. **Engineering Drawing**, *Agarwal, B. and Agarwal, C.M.*, Tata McGraw-Hill.
3. **Engineering Drawing**, *Bhatt, N.D. and Panchal, V.M.*, Charotar Publication.
4. **Architectural Graphics**, *C. Leslie Martin*, The Macmillan Company, New York, 1964

**DATE: 25-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

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## MBS SCHOOL OF PLANNING AND ARCHITECTURE

### TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| **Year : 1st ( I )** | **Semester : 1st ( I )** |
| **Subject Code : AP - 107** | **Subject : Art and Architectural Graphic - I** |
| **Subject Type : Studio** | **Credits : 3** |

**Objectives :**

- To learn art as a medium of expression of ideas.
- To learn various techniques of representation.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| 1 | **STILL LIFE : OBJECTS STUDY** (Individual Assignment) Introduction to different lines with pencils HB, B, 2B, 3B, 4B, 5B, 6B, charcoal pencil, etc. Free hand still life sketching of composition of solids, cubes, cylinders etc. Study of light, shade and shadow. | SKETCH WORK ON A3 SIZE SKETCHBOOK **(40 Marks)** |
| 2 & 3 | **STILL LIFE: OBJECTS STUDY** Work Progress And Student's Work Checking In The Class | SKETCHWORK ON A3 SIZE SKETCHBOOK |
| 4 | **LIFE STUDY: FREE HAND SKETCHING** (Individual Assignment) Free hand sketching in pencil of elements of scale like trees, shrubs, human, figures, vehicles etc. Using pencil colors to learn light & shade, shadow and 3D effects. | SKETCHWORK ON A3 SIZE **(40 Marks)** |
| 5 & 6 | **LIFE STUDY:** Free Hand Sketching Work Progress And Student's Work Checking In The Class | SKETCH WORK ON A3 SIZE SKETCHBOOK |
| 7 | **RENDERING OF DIFFERENT TEXTURES** (Individual Assignment) Studying rendering techniques of different textures of building material in pencil, coloured pencils and other materials. | SKETCH WORK ON A3 SIZE SKETCHBOOK **(40 Marks)** |
| 8 & 9 | **RENDERING OF DIFFERENT TEXTURES** Work Progress And Student's Work Checking In The Class | SKETCH WORK ON A3 SIZE SKETCHBOOK |

| | | |
|---|---|---|
| 10 | **MID TERM EXAMINATION** | |
| 11 | **COLORS**<br>(Individual Assignment) Colour theory and colour wheel. Colour/ Properties of colour/ Colour schemes/ Types of colors/ Application and visual effects of colour. | SKETCH WORK ON A3 SIZE SKETCHBOOK<br>**(40 Marks)** |
| 12 | **COLORS**<br>Work Progress And Student's Work Checking In The Class | SKETCH WORK ON A3 SIZE SKETCHBOOK |
| 13 | **FREEHAND SKETCHES** (Individual Assignment) 3 sketches of any objects would be produced in a week on A4 size sketchbook, which would be checked in every fourth week. 25 sketches should be submitted at the end of semester. | SKETCH WORK ON A4 SIZE SKETCHBOOK<br>**(40 Marks)** |
| 14 | **FREEHAND SKETCHES**<br>Work Progress And Student's Work Checking In The Class | |
| 15 | **PRE- FINAL PORTFOLIO SUBMISSION** | |
| 16 | **FINAL PORTFOLIO SUBMISSION** | |

**Suggested Books/Readings:**

1. **Manual of Rendering with Pen and Ink**, *Gill, Robert W*, Thames and Hudson, London, 1997.
2. **How to Paint and Draw**, *Jax Themier, B.W.*, Thames and Hudson, 1985.
3. **Engineering Graphics**, *Bhattacharya, B. and Bera, S.C.*, I.K. International.

**DATE: 25-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA
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**B. ARCH**
**TEACHING SCHEDULE (2025-26)**

| | |
|---|---|
| **Year: First year** | **Semester : Sem 1** |
| **Subject Code: AP-111** | **Subject:** Surveying and Leveling (NUES) |
| **Subject Type: studio** | **Credits: 02** |

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 | Introduction to surveying instruments | |
| Week 2 | Introduction to surveying symbols and sign convention | |
| Week 3 | Surveying of an area by chain survey. (open traverse/closed traverse) | |
| Week 4 | surveying of an area by chain survey. (open traverse/closed traverse) | ASSIGNMENT 01 |
| Week 5 | Sheets submission | |
| Week 6 | Determination of distance between two inaccessible points by prismatic compass. | |
| Week 7 | Determination of distance between two inaccessible points by prismatic compass. | ASSIGNMENT 02 |
| Week 8 | Sheets submission | |
| Week 9 | Surveying of a given area by prismatic compass (closed traverse/open traverse) and plotting after adjustment. | |
| Week 10 | Mid Term Examination | |
| Week 11 | Surveying of a given area by prismatic compass (closed traverse/open traverse) and plotting after adjustment. | |
| Week 12 | Plane Table surveying by radiation method. | ASSIGNEMNT 03 |
| Week 13 | Plane Table surveying by intersection method. | |
| Week 14 | Sheet submission | |
| Week 15 | measurement of horizontal angle by repetition method using vernier transit theodolite. | |
| Week 16 | Introduction to total station | ASSIGNMENT 04 |
| Week 17 | DOUBT SESSION | |

| | | |
|---|---|---|
| Week 18 | REVISION | |

**Suggested Books/Readings:**

- **Surveying lab manual.**

**Faculty Details:**

| | Section A | Section B | Section C |
|---|---|---|---|
| Name of Subject Faculty | ER.KAPIL | ER,KAPIL | ER,KAPIL |
| Signature with Date | | | |

**Prepared by: ER. KAPIL PRABHAT VERMA** K.P.P 01/8/25

**Signature of Director: PROF. BIJAY DASH** 01-08-2025

MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA
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**B. ARCH**
**TEACHING SCHEDULE (2025-26)**

| | |
|---|---|
| **Year: First year** | **Semester : Sem 1** |
| **Subject Code: AP-121** | **Subject: THEORY OF STRUCTURE-I** |
| **Subject Type: Theory** | **Credits: 02** |

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 | Introduction to statics: forces, law of parallelogram of forces, law of triangle of forces, polygon law of forces. | |
| Week 2 | Law of triangle of forces, polygon law of forces. Resolution of forces. | |
| Week 3 | Resultant of number of concurrent coplanar forces | |
| Week 4 | Condition of equilibrium, moment of force, moment and arm of couple, theorems on couples. | ASSIGNMENT 01 |
| Week 5 | Simple Stresses and Strains Elasticity, Stress, Strain, Types of stresses, Elastic limit, Hook's law, Modulus of elasticity | |
| Week 6 | Modulus of rigidity, Bulk modulus, Stresses in composite bars/section, Modular ratio, Equivalent area of a compound section. | |
| Week 7 | Equivalent area of a compound section. Primary or Linear strain, Poison's ratio, Shear stress. | |
| Week 8 | Principal stresses and strains (for simple cases), Mohr's circle | ASSIGNMENT 02 |
| Week 9 | Centre of Gravity & Moment of Inertia: Definition, Methods of finding out centre of gravity of simple figures | |
| Week 10 | Mid Term Examination | |
| Week 11 | Centre of parallel forces. Definition, Important theorems, Calculation of moment of inertia of different shapes and its application | |
| Week 12 | Moment of inertia of composite sections. | ASSIGNEMNT 03 |
| Week 13 | Shear Force and Bending Moments Beams shearing force and bending moment | |
| Week 14 | Shear force and bending moment diagrams for cantilever and simply supported beam, and overhanging beam | |
| Week 15 | Stresses in Beams Simple beams bending, Section mod., Moment of resistance, Shear stress in section of beam | |

| | | |
|---|---|---|
| Week 16 | NUMERICALS based on Moment of resistance, Shear stress in section of beam | ASSIGNMENT 04 |
| Week 17 | DOUBT SESSION | |
| Week 18 | REVISION | |

**Suggested Books/Readings:**

- **R S KHURMI, STRENGTH OF MATERIAL**

**Faculty Details:**

| | Section A | Section B | Section C |
|---|---|---|---|
| Name of Subject Faculty | | | |
| Signature with Date | ER. Kapil | ER. Kapil | ER. Kapil |

**Prepared by:** ER. Kapil Kapil 01/08/25

**Signature of Director: PROF. BIJAY DASH** 01-08-2025

MBS COLLEGE

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Sector-9, P.S.P. Area, Dwarka, New Delhi - 110077

## MBS SCHOOL OF PLANNING AND ARCHITECTURE

### TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| **Year : 1st ( I )** | **Semester : 1st ( I )** |
| **Subject Code : AP - 123** | **Subject : History of Architecture - I** |
| **Subject Type : Theory** | **Credits : 2** |

**Objectives :**

- To inform about various determinants of culture and context of the place of study.
- To understand the role of culture, beliefs, myths, politics, economics, geography, materials and climate etc. in shaping architectural intent of buildings.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| 1 | Importance of History in Architecture- Introduction to **Ancient River Valley Civilizations**: about various determinants of culture and context of the civilizations, role of economics, geography, materials and climate etc. in shaping architectural intent of buildings of that duration. | |
| 2 | Introduction to **Egyptian Civilization**, Development of cultural and religious beliefs (**along Nile valley**) | |
| 3 | Evolution of **Funerary Architecture** from Mastabas to Pyramids with case examples at Saqqara, Medun Cheops and Giza. | Assignment No. 1 : **Egyptian Civilization** (10 MARKS) |
| 4 | Architecture of **Mortuary & Cult Temples** with case examples of Luxor, Ammon, and Karnak, Rock Cut Examples Abu Simbel etc. | |
| 5 | Introduction to **Mesopotamian Civilization**: Study of stages of civilization from early city-states to Sumerian, Babylonian, Assyrian, and Persian | |
| 6 | Mesopotamian Civilization (contd.): Prominent examples of **Ziggurats at Ur, Urnamu,** etc.; Palaces and/or cities of Ur, Babylon, Khorsabad. | Assignment No. 2 : **Mesopotamian Civilization** (10 MARKS) |
| 7 | **Indus valley civilization,** its extent and link with other civilizations of time. | |
| 8 | Indus valley civilization: Town planning, residential and public buildings with case examples of cities of **Mohenjo-Daro, Harappa, Lothal.** | Assignment No. 3 : **Indus Valley** |

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| | | **Civilization** (10 MARKS) |
| 9 | Introduction to **India-Early Iron Age Civilization**, Wooden Architecture of Indian Origins: Forest dwellings, Kutiya Grama. | |
| 10 | **MID TERM EXAMINATION** | |
| 11 | **Introduction to Buddhist & Jain Architecture**: Hinayana & Mahayana and their contribution in development of architecture in India, **Ashokan Schools.** | Assignment No. 4 : **Buddhist & Jain Architecture** (10 MARKS) |
| 12 | Buddhist rock cut Architecture: the **Chaitya and Viharas** at **Ajanta & Ellora**; the Stupa: form and evolution; **Buddhist Architecture in Gandhara.** | |
| 13 | **Greece- Early Iron Age Civilization**: Minoan, Mycenaean and Classical Greek; Minoan and Mycenaean: Palace at Knosos, the Lion Gate, and the appearance of the Megaron. | Assignment No. 5 : **Early Greek Architecture** (10 MARKS) |
| 14 | Greek City states – **Athens, Delphi, Sparta; Evolution of the Temple; Orders; the Parthenon. Rome- Structural and Engineering achievements:** the arch, the vault and the dome | |
| 15 | **Rome (Contd.)-** Temples: Pantheon; Arenas: Colosseum; Therma: Caracalla; Aqueducts; the forum and the basilica | Assignment No. 6 : **Early Roman Architecture** (10 MARKS) |
| 16 | **REVISION** | |

**Suggested Books/Readings:**

1. **History of Architecture in India**, *Tadgell Christopher*, Paperback – 6 Jul 1994.
2. **History of Architecture**, *Kostof Spiro*, Oxford University Press, New York, 1995
3. **Architecture of the Western World**, *Raeburn Michael*, Popular Press, England, 1988
4. **Vastu Shastra**, *Shukla D.N.*, Munshiram Mohanlal, New Delhi, 1993
5. **The Image of the City**, *Lynch Kevin*, Joint Centre Publication, USA, 1960

**DATE: 26-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

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## MBS SCHOOL OF PLANNING AND ARCHITECTURE

### TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| Programme : B. Arch. | Programme Code : 016 |
| Year : 1st ( I ) | Semester : 1st ( I ) |
| Subject Code : AP - 125 | Subject : Building Material Sciences – I |
| Subject Type : Theory | Credits : 2 |

Objectives :

- To have an understanding of properties, characteristics, strength, manufacture, processing and application of materials.
- To sensitize the students to use naturally occurring materials in the context of creating green architecture.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| 1 | **Glance at Syllabus** : Properties, characteristics, strength, manufacture, processing and application of different materials.<br>**General discussion** : Past, current and future buildings and the use of different building materials.<br>**Introduction** : Unit 1 - Clay and Clay products | |
| 2 | **Lecture** : Introduction to basic building materials. (Clay and Clay products : mud blocks, stabilized earth blocks, Burnt Bricks, terracotta tiles) | **Class Quiz** : Basic building material. |
| 3 | **Lecture** : Introduction to basic building materials. (Brick Ballast and Surkhi, Fly Ash Blocks, Concrete Blocks.) | **Assignment 1**: Questions based on the topics covered (Max. marks : 10)<br>**Activity 1**: Identify these materials in the vicinity(Max. marks:10) |
| 4 | **Lecture** : Stones (types of rocks, classification of stones, Indian stones: region wise). | **Class Quiz** : Stones |
| 5 | **Lecture** : **Stones** (Building stones, their characteristics, properties and usage)<br>**Slates** (Properties, Characteristics, Strength and Usage) | **Assignment 2**: Questions based on the topics covered (Max. marks : 10)<br>**Activity 2**: Identify different stone usage in buildings across different regions in India. (Max. marks:10) |
| 6 | **Introduction** : **Lime, mortar and concrete** (Lime, properties, occurrence in nature, manufacture, usage in buildings.) | **Assignment 3A**: Questions based on the topics covered (Max. marks : 5) |

| | | |
|---|---|---|
| 7 | **Lecture : Lime, mortar and concrete** (Mortars- its components, function and properties- mud, lime mortars) | **Assignment 3B**: Questions based on the topics covered (Max. marks : 5) |
| 8 | **Lecture : Lime, Mortar and Concrete** (Concretes- in Lime - its components, mixing ratios and use in various parts of buildings) | **Assignment 3C**: Questions based on the topics covered (Max. marks : 5) |
| 9 | **Revision Class for Mid Term Examination** | |
| 10 | **Mid Term Examination** | |
| 11 | **Lecture : Bamboo and other natural materials** (Bamboo as plant classification, species, geographical distribution, anatomy of bamboo) Sensitizing the students to the use of the naturally occurring materials in the context of green architecture with relevant examples. | **Class Quiz : Bamboo and Green Architecture** |
| 12 | **Lecture : Bamboo and other natural materials** (Properties, strength, processing, harvesting, tools, Treatment and preservation and uses of Bamboo.) | **Assignment 4** : Questions based on the topics covered (Max. marks : 10) |
| 13 | **Discussion :** Bamboo redefining architecture in recent times citing examples from all over the world. | |
| 14 | Basic design models and assignments submission | **Activity 3** : Model (Max. marks:10) |
| 15 | **Revision** | |
| 16 | **Final Submissions** | |

**Suggested Books/Readings:**

1. **Building Materials**, *Varghese P.C*, Prentice Hall of India Pvt Ltd New Delhi, 2005.
2. **Bambus – Bamboo, Bamboo as a Building Material**, *Dunkelberg (K)*, Karl Kramer Verlag Stuttgart, 2000.
3. **Building with Straw: Design and Technology of a Sustainable Architecture**, *Gernot Minke and Friedemann Mahlke*, Birkhauser, Publisher for Architecture Berlin, Boston, 2005.
4. **Building Materials**, *Duggal S.K*, Oxford & IBH Pub Co Pvt Ltd, New Delhi, 1997.
5. **Building Materials in Developing Countries**, *Spencke R. F. and Cook D.J.*, John Wiley and Sons, 1983.
6. **Materials of Construction**, *Ghosh D.N.*, Tata McGraw-Hill, 1989.

**DATE: 26-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

# MBS COLLEGE

Sector-9, Dwarka, New Delhi
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2024-25

| | |
|---|---|
| YEAR : 2nd Year | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP - 201 | SUBJECT TITLE: ARCHITECTURAL DESIGN - III |
| SUBJECT TYPE: STUDIO | CREDITS: 08 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

## OBJECTIVES

To learn designing for a small multifunctional and multi-building domestic or institutional (School, small shopping complex or mixed group), addressing aspects of built internal spaces, external form and open external spaces.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT |
|---|---|---|
| 1st Week (1st Aug – 8th Aug) | Introduction to the Design Problem.<br>**Lecture:** Understanding the Design brief- Primary School, its spatial Discussion on system in formally planned system, integrating built and unbuilt spaces in respect multi-functional demands of the project<br>**Emphasis:** Incorporation of Climate Responsive Strategies and Constructional Systems appropriate to Social and Economic Context. | Discussion on Design Brief<br>Groups Distribution |
| 2nd Week (11th Aug – 15th Aug) | **Lecture:** Introduction of Literature Study to be done through books, standards covering topics such as **Anthropometry, Basic Conversions, Guidelines from CBSE and DoE, Parking Standards, Basic Structure, Site Planning, Internal Planning, Toilet Blocks, Services such as Fire Safety, Plumbine:, Electrical, Lifts, Shafts,etc.** | Methodology for Literature Study |
| 3rd Week (18st Aug – 22nd Aug) | **Literature Study (Submission and Presentation)** | Discussion |
| 4th Week (25th Aug – 29th Aug) | **Lecture:** Importance of Case Study and its Impact on the Design and Methodology of Case Study.<br>**Book / Online / Virtual Case Studies (Submission and Presentation)** | Methodology to conduct Book / Online / Virtual Case Study |
| 5th Week (1st Sept – 5th Sept) | **Lecture on Site Introduction** - Discussion and a brief lecture on Site Analysis and points to be covered according to the Design Problem.<br>**Site Analysis Presentation and Area Calculation Introduction** | Lecture and Discussions |
| 6th Week (8th Sept -12th Sept) | **Area Programme** - Formation of Area Program and Requirements according to the analyses of Literature and Case Studies done.<br>**Lecture:** Zoning and Site Planning according to Concept, Planning Principles, Conversion of Concept to Design. | **Final Marking of Area Program [STAGE 1 COMPLETED]** |
| 7th Week (15th Sept – 19th Sept) | **Lecture: Introduction on Preliminary Concept [STAGE 2)**<br>Correlation of all activities through Proximity Chart, Bubble Diagram and Preliminary Concept in form of (Plans, 3D, Sketching, etc)<br>Discussion on Concept, Bubble Diagram, Proximity and Zoning with respect to Area Formulation | Concept Development to be done in Studio. |
| 8th Week (22nd Sept – 26th Sept) | **Final Concept Submission**- Bubble Diagram, Conceptual Block Model, etc | Final Marking of Concept |
| 9th Week (29th Sept – 3rd Oct) | **Conceptual Plan {STAGE 3}**<br>One on One Table Discussions with every student on Concept | Discussion |

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| 10th Week (6th Oct – 10th Oct) | **MID-TERM EXAMS** | |
| 11th Week (13th Oct – 17th Oct) | Finalization of Plans with respect to Site Block Model | Progressive Marking |
| 12th Week (20th Oct -24th Oct) | **Presentation on Plans** (Site Plan, Ground Floor Plan, First Floor, Roof Plan)<br>**Lecture on Sections and Elevations** | Discussion & Presentation |
| 13th Week (27th Oct -31st Oct) | **GGSIPU SPORTS MEET** | |
| 14th Week (3rd Nov – 7th Nov) | **One on One Table Discussions with every student on Sections and Elevations** | Discussion & Presentation |
| 15th Week (10th Nov – 14th Nov) | **Final Model, Final Concept and 3D Views & Discussion**<br>Pre-final Design Submission and Presentation (Final Concept, Site Plan, Floor Plans, Elevations, Sections and Block Model) | Pre Final Marking of Work Progress |
| 16th Week (17th Nov – 21st Nov) | **Final Portfolio Submission [STAGE SJ**<br>All Floor Plans , Site Plan, Roof Plan, Elevations, Sections, 3D Views and Scaled Model | **Final Marking of Portfolio Submission** |
| 17th Week (24th Nov – 28th Nov) | **MARKS REVISION** | **Final Marking of Portfolio Submission** |

## SUGGESTED BOOKS/READINGS:

1. Time Saver Standards and Neufert
2. NBC (for fire safety norms regarding staircase, exists, Lifts, Washrooms etc.)
3. Building Byelaws
4. MPD-2021 & 2041
5. Time Savers standards for Architectural Design
6. Neufert Architect's Data
7. CBSE Guidelines
8. DoE Guidelines
9. N.D. Bhatt -Architectural Drawing
10. Rendering with Pen & Ink

**Prepared by:** Ar. Shubhi Khare **Signature**.....

**Submitted on:** 21/07/25

**Director: Prof. Bijay Dash** 21-07-2025 21-08-2025

# MBS SCHOOL OF PLANNING AND ARCHITECTURE

Sector-9, Dwarka, New Delhi
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY 2025-26

| | |
|---|---|
| YEAR: 2nd Year | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP- 203 | SUBJECT TITLE: BUILDING CONSTRUCTION III |
| SUBJECT TYPE: STUDIO | CREDITS: 05 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objective – (As per GGSIPU Syllabus)**

- To develop an understanding of RCC as a structural and construction material.
- To impart knowledge of different types of foundations and their application in varied site conditions.
- To explore construction techniques involved in raft foundations and basements.
- To familiarize students with waterproofing, flooring, and retaining wall details.
- To introduce conventional and advanced methods used in RCC construction through hands-on and real-site exposure.

**INTRODUCTION**

The subject introduces the students to Reinforced Cement Concrete (RCC) construction systems with an emphasis on foundational components such as raft foundations, basement walls, retaining structures, and waterproofing techniques. It bridges theoretical understanding with on-site applications, enabling students to make informed design and construction decisions in professional practice.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | WEIGHTAGE (Marks) |
|---|---|---|---|---|
| 1 | | **Introduction to Syllabus**<br>**Introduction to RCC Construction**<br>• Importance and application.<br>• Strength and Failure<br>• Single Storey Building and Multi Storey Building | **Assignment 1- (Group Work)**<br>Report<br>Different Cases based on failure and successful structure. | 10% |
| 2 | | **Introduction to Foundation I**<br>• Types<br>• Soil Conditions | **Assignment 2- (Individual Work)**<br>Literature Sheet on Types of Foundation | 10% |
| 3 | | **Introduction to Foundation II**<br>***Cont.***<br>• Marking and layout | ***Assignment Cont.***<br>Demonstration with sectional model | |
| 4 | | **Introduction to Foundation II**<br>***Cont.***<br>• Raft Foundation | ***Assignment Cont.*** Sheet Work<br>Layout | |
| 5 | | **Introduction to Basement Construction**<br>• Types<br>• Conditions and Application<br>• One/ Two Level<br>• Access | **Assignment 3- (Group Work)**<br>Report work on basement construction | 10% |

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|---|---|---|---|---|
| 6 | | **Introduction to Retaining Wall**<br>• Types<br>• Soil<br>• Applications | **Assignment 4-**<br>**(Individual Work)**<br>Literature Sheet on Types of Retaining Wall | 10% |
| 7 | | **Introduction to Waterproofing System**<br>• Different types of waterproofing system in basement construction<br>• Tanking System<br>• Materials | **Assignment 5-**<br>**(Individual Work)**<br>Literature Sheet on Types of waterproofing | 5% |
| 8 | | MID-TERM EXAMINATION | | |
| 9 | | **Introduction to Flooring and Sub Flooring System I**<br>• Components<br>• Applications | **Assignment 6-**<br>**(Individual Work)**<br>Sheet work<br>Flooring Layout, Details | 15% |
| 10 | | **Introduction to Flooring and Sub Flooring System I**<br>***Cont.***<br>• Foundation<br>• PCC<br>• Floor Slab | ***Assignment Cont.***<br>Flooring Layout, Details, Sections, Models | |
| 11 | | **Basement Construction**<br>• Single Level Basement Construction<br>• Layout<br>• Access<br>• Parking<br>• Ventilation<br>***Case Studies:***<br>1. Gandhi Ashram, Ahmedabad<br>2. Centre for Development Studies, Thiruvananthapuram<br>3. Ar. Chitra Vishwanath Projects | **Assignment 7-**<br>**(Individual Work)**<br>Sheet Work<br>Plans, Sectional Elevations<br>Details | 20% |
| 12 | | **Basement Construction**<br>***Cont.***<br>• Parking<br>• Ventilation<br>• Core | ***Assignment Cont.***<br>Sheet Work<br>Plans, Sectional Elevations<br>Details | |
| 13. | | **Modern Innovation Techniques**<br>Used in basement and RCC Construction as Per Materials | **Assignment 8-**<br>**(Group Work)**<br>Report work, Material based | 05% |
| 14. | | **Model making Exercise**<br>• Basement<br>• Foundation<br>• Retaining Wall | **Assignment Completion-**<br>**(Model Work)** | 10% |
| 15 | | **Pre Final Submission and Assessment**<br>• Report + Sheets + Model | Group Work<br>+<br>Individual Work | 95% (Academic Work)<br>+ 05% (Attendance) |
| 16 | | **Final Submission and Assessment**<br>• Report + Sheets + Model | Group Work<br>+<br>Individual Work | 95% (Academic Work)<br>+ 05% (Attendance) |

## LEARNING OUTCOMES

- Understand and apply principles of RCC foundation systems including raft and strip foundations.
- Analyze and detail basement construction with appropriate waterproofing techniques.
- Interpret construction drawings for RCC foundations and retaining walls.
- Compare conventional and improved construction methods and materials used in sub-structural systems.
- Demonstrate understanding through drawings, site visit reports, and models.

## SUGGESTED BOOKS/READINGS:

1. Barry, R. – Construction of Buildings, East West Press
2. McKay, W.B. – Building Construction (Vol. I–IV)
3. Allen, Edward – Fundamentals of Building Construction
4. Punamia, B.C. – Building Construction, Laxmi Publications
5. Chudley, R. – Building Construction Handbook
6. Published Material from HUDCO, CBRI Roorkee

## FACULTY DETAILS:

| | SECTION A | SECTION B | SECTION C |
|---|---|---|---|
| **Subject Faculty Name** | | | |
| **Date and Signature** | | | |

**Prepared by:** Ar. Ravi Prakash Mishra

**Prepared on:** 21/07/2025

**Director:** Prof. Bijay Dash 21-07-2025

**Signature**.....

21-08-2025

# MBS COLLEGE

Sector-9, Dwarka, New Delhi
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2024-25

| | |
|---|---|
| YEAR : 2nd Year. | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP - 205 | SUBJECT TITLE: ARCHITECTURAL DRAWING - III |
| SUBJECT TYPE: STUDIO | CREDITS: 03 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objectives:**

- To introduce the relevance of different softwares to enhance drawing and design skills.
- To make students learn the basic commands and techniques to draft in 2D and 3D

**Specific Objectives:**

- To educate students how to use AutoCAD and Photoshop.
- To have awareness about its characteristic features and process related to its manufacturing and application.
- To learn about the line weights, dimensioning, plotting and printing procedure.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT |
|---|---|---|
| 1st Week (1st Aug – 8th Aug) | **Lecture 1:** Introduction to AutoCAD (Software Installation) | Interactive Session: Draw Architectural Desoign Form |
| 2nd Week (11th Aug – 15th Aug) | **Lecture 2:** User interface of AutoCAD and basic settings | **Assignment 1:** Define the terms: 1. AutoCAD 2. Workspace 3. Crosshair 4. Command Bar |
| 3rd Week (18st Aug – 22nd Aug) | **Lecture 3:** Basic 2D commands for drafting | **Assignment 2:** 1. State any 15 AutoCAD commands 2. What is the relation of AutoCAD and architecture? Explain the need of the softwares skills very briefly. |
| 4th Week (25th Aug – 29th Aug) | **Lecture 4:** Basic 2D commands for drafting | **Assignment 3:** Draw any four 2D objects given. |
| 5th Week (1st Sept – 5th Sept) | **Lecture 5:** Overlays, page setups and drawing setup | **Assignment 4:** Draft any typical residence site plan and floor plan. |
| 6th Week (8th Sept - 12th Sept) | **Lecture 6:** Introduction to different layers and significance of line weights **Lecture 7:** How to use and scale from objects library (furniture, trees, cars, kitchen and bathroom fixtures) | **Assignemnt 5:** Use and importance of layers (freeze and create) and line weights and object libraries. |
| 7th Week (15th Sept – 19th Sept) | **Lecture 8:** Use of advanced commands-hatching utilities, textures, scaling, aligning, block making, pline, spline and editing. | **Assignment 6:** To rasfer zoning blow-up showing roads and buildings connectivity. |
| 8th Week | **Lecture 9:** Use of plotting and printing commands | **Assignment 7:** |

| | | |
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| (22nd Sept – 26th Sept) | | Using plan made in Assignment 4 |
| 9th Week (29th Sept – 3rd Oct) | **Lecture 10:** Introduction to 3D, user interface of 3D AutoCAD | **Assignment 8:** Residence 3D Model |
| 10th Week (6th Oct – 10th Oct) | **MID-TERM EXAMINATION** | |
| 11th Week (13th Oct – 17th Oct) | **MID-TERM PORTFOLIO SUBMISSION** | |
| 12th Week (20th Oct - 24th Oct) | **Lecture 11:** Introduction to Photoshop and its application | **Assignment 9:** Collage on Photoshop |
| 13th Week (27th Oct - 31st Oct) | **IPU SPORTS MEET (29th October 2025 to 31st October 2025)** | |
| 14th Week (3rd Nov – 7th Nov) | **Lecture 12:** Textures and colour palettes editing in Photoshop, Basic rendering | **Assignment 10:** Abstract Composition |
| 15th Week (10th Nov – 14th Nov) | | **Assignment 11:** Residence Render |
| 16th Week (17th Nov – 21st Nov) | **Pre-Final Portfolio Submission** | |
| 17th Week (24th Nov – 28th Nov) | **Revision and Evaluation**<br>**Final marking** | |

**LEARNING OUTCOMES:**

- To learn to apply AutoCAD as a tool for developing basic 2D and 3D composition
- To create rendered view in 2D and 3D views by using Photoshop.

**SUGGESTED BOOKS/READINGS:**

1. Autodesk AutoCAD Certified User Study Guide, By Daniel John Stine AIA, IES, CSI, CDT, Well AP, William G, Wyatt Ed.D, CET
2. D Introduction to AutoCAD 2025 for Civil Engineering Applications by Nighat Yasmin Ph.D
3. Adobe Photoshop Classroom in a Book (2023) by Conrad Chavez
4. Adobe Photoshop CC 2022 Beginner's Guide.

**Prepared by:** Ar. Shubhi Khare **Signature:** Shubhi

**Submitted on:** 21/07/25

**Director: Prof. Bijay Dash** 21-07-2025

24-08-2025

# MBS COLLEGE

**Sector-9, Dwarka, New Delhi**
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2024-25

| | |
|---|---|
| YEAR : 3rd Year | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP - 207 | SUBJECT TITLE: ART AND ARCHITECTURAL GRAPHICS – III |
| SUBJECT TYPE: STUDIO | CREDITS: 03 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objectives:**

- To learn skills of communication to an external audience, in addition to the task of communication within the design process
- Intention of this course is to learn different techniques of representation and presenting ideas seamlessly.
- Teaching and learning will be 'hands on'in a studio format.
- Skills will be acquired through a series of structured studio exercise

**Specific Objectives:**

- To develop visual literacy in analyzing art and architectural styles.
- To master graphic representation techniques for effective communication.
- To enhance creative expression through hands on studio activities.
- To refine communication skills for seamless idea presentation
- To promote critical thinking in analyzing and critiquing visual media.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT |
|---|---|---|
| 1st Week (1st Aug – 8th Aug) | **Lecture 1:** Learning of different Art/Architectural style/movements and its theories and analyzing the representation and exploring it. | **Assignment 1:** PPT Presentation (Group Submission) |
| 2nd Week (11th Aug – 15th Aug) | | |
| 3rd Week (18st Aug – 22nd Aug) | **Lecture 2: LOGO DESIGN** PPT presentation on how LOGO is developed its concept development, eye mind hand representation. | **Assignment 2:** Student will develop LOGO for different types of company like photography, architectural firm, Art gallery etc. |
| 4th Week (25th Aug – 29th Aug) | | |
| 5th Week (1st Sept – 5th Sept) | **Lecture 3: COLLAGE** Lecture on different architects and their work. | **Assignment 3:** Depicting the projects of architects on a single A1 sheet in the form of a collage |
| 6th Week (8th Sept - 12th Sept) | | |
| 7th Week (15th Sept – 19th Sept) | | |
| 8th Week (22nd Sept – 26th Sept) | **Lecture 4: CALLIGRAPHY & PRINTING** PPT Presentation by students on different types of Calligraphy and in various font styles. Hindi Calligraphy can also be used. | **Assignment 4:** Calligraphy and Printing |
| 9th Week (29th Sept – 3rd Oct) | | |

| | | |
|---|---|---|
| 10th Week (6th Oct – 10th Oct) | **MID-TERM EXAMINATION** | |
| 11th Week (13th Oct – 17th Oct) | **Lecture 4: CALLIGRAPHY & PRINTING**<br>PPT Presentation by students on different types of Calligraphy and in various font styles. Hindi Calligraphy can also be used. | **Assignment 4:**<br>Calligraphy and Printing |
| 12th Week (20th Oct - 24th Oct) | **Lecture 5: IDEATION & TRANSLATION**<br>Hamd skills such as cutting, drawing, painting, stitching to explore form, colour, texture and image as means of expression. | **Assignment 5:**<br>Ideation & Translation |
| 13th Week (27th Oct - 31st Oct) | **IPU SPORTS MEET (29th October 2025 to 31st October 2025)** | |
| 14th Week (3rd Nov – 7th Nov) | **Lecture 5: IDEATION & TRANSLATION**<br>Hamd skills such as cutting, drawing, painting, stitching to explore form, colour, texture and image as means of expression. | **Assignment 5:**<br>Ideation & Translation |
| 15th Week (10th Nov – 14th Nov) | | |
| 16th Week (17th Nov – 21st Nov) | **PRE-FINAL PORTFOLIO SUBMISSION** | |
| 17th Week (24th Nov – 28th Nov) | **FINAL PORTFOLIO SUBMISSION** | |

**LEARNING OUTCOMES:**

- Appreciation of arts and aesthetic qualities and looking beyond architecture.
- Exploration of hand skills such as cutting, drawing and painting as a medium of expression.
- Understanding of architectural styles and movements across the world and appreciating them in the context of visual perspectives.
- To comprehend a relationship between visual composition and abstraction.

**SUGGESTED BOOKS/READINGS:**

1. Gill, Robert W., manual of rendering with pen and ink, Thames and Hudson, London 1997
2. Jax Themier, B.W., "How to paint and draw", Thames and Hudson, 1985
3. Ching, F.D. Architectural Graphics. New Jersey, U.S. John Wiley and Sons, 2009
4. Yee, R. Architectural drawing: a visual compendium of types and methods. New Jersey, U.S.

**Prepared by:** Ar. Shubhi Khare **Signature:** Shubhi

**Submitted on:** 21/07/25

**Director: Prof. Bijay Dash** 21-07-2025

21-08-2025

MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA
Affiliated to GGSIPU, Approved By COA & AICTE

**B. ARCH**
**DETAILED TEACHING SCHEDULE (2025-26)**

| | |
|---|---|
| **Year: 2nd year** | **Semester : Sem 3** |
| **Subject Code: AP-221** | **Subject: THEORY OF STRUCTURES III** |
| **Subject Type: Theory** | **Credits: 03** |

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 (UNIT 01) | Plain cement concrete: History of concrete in building works, modern concrete mix, curing and strength of concrete, effect of temperature, shrinkage and curing. | |
| Week 2 | Reinforced cement concrete (RCC): Difference between plain and Reinforced cement concrete and their applications, functions of reinforcement in RCC. | |
| Week 3 | Deflection of Beams :( cantilever and simply supported) introduction, calculation of slope and deflection by double integration method. Macaulay's method and moment Area method, conjugate beam method. | |
| Week 4 | Column and strut Definition, End conditions, Buckling and critical loads, slenderness ratio, various column theories, stress distribution of the section of the eccentrically loaded rectangular column, the middle third rule, core or kernel of section(rectangular or circular sections) | |
| Week 5 (UNIT 02) | Cement: Cement manufacturing and properties, Grades 33, 43 and 53 cement. Different types of cement and their properties. Concrete: structural properties and variation of strength with age, Factors affecting strength of concrete, cube test for strength, standard strength grades of concrete. | ASSIGNMENT 01 |
| Week 6 | Curing of concrete: Needs, Methods, Duration of concrete, implication of inadequate curing. Workability of concrete: Meaning and its functions, Slump and compaction factor test for wokability,Workability Requirements at site, | |
| Week 7 | Water cement ratio and its effect on strength of concrete, Abhrams law of water cement ratio, Effect of W/c ratio on strength of concrete. Durability of concrete: Meaning of the term causes detoriation of RCC members, preventive measures as per IS 456-2000.Requirement of minimum cement content, concrete grades and maximum w/c ratios for different exposure conditions. | |
| Week 8 | Nominal and design concrete mixes, Basic difference merits and demerits of each and their applications, Basic principles of concrete mix design, concept of weigh batching concrete, Manufacturing of concrete: In situ and ready mix concrete | |

| | | |
|---|---|---|
| | (RMC), Merits and demerits of applications of each type of reinforcement and their allowable stresses mild steel VS high yield strength Deformed bars and relative merits of HYSD bars. Present trends in use of reinforcement. | |
| Week 9 (UNIT 03) | Theory of RCC Design,Behaviour of heterogeneous materials in direct force and bending, idea of neutral axis, compression Zone, tension Zone, Lever arm and moment of resistance of an RC design. | ASSIGNMENT 02 |
| Week 10 | Mid Term Examination | |
| Week 11 | Basic assumptions and methods of RCC Design, concepts of working stress method (WSD), Ultimate load method (ULM), and limit state method (LSM) of RCC design. (Only LSM of RCC design to be dealt using Fe 415 grade steel reinforcement, working stress method of design, and mild steel of Fe250 are obsolete in use and will not be dealt.) | |
| Week 12 (UNIT 04) | Design of RCC members: Design and detailing of following RCC elements using design of tables of SP-16(No formula to be derived | ASSIGNMENT 03 |
| Week 13 | Singly reinforced simply supported beam sections under UDL.Doubly reinforced simply supported beam sections under UDL. | |
| Week 14 | One way simply supported rectangular/square RCC Slabs. Two ways simply supported rectangular/square RCC slabs. | |
| Week 15 | Axially loaded RCC columns (Rectangular, square and circular sections with or without Helical reinforcement).tie reinforcements in RCC column.) | |
| Week 16 | Isolated square footing for axially loaded RCC columns (footing to be designed for only bending, calculations for beam and punching shear not included) option to provided tapered footing or footing of uniform depth to be given in exams.) | |
| Week 17 | Design for shear reinforcement of beams using design Tables of SP 16(only stirrups shear reinforcement to be covered in design. Calculation for bent up bars as shear reinforcement not covered). | |
| Week 18 | Use of charts and tables of SP 16 to be adopted to avoid memorization of formulae. Students must learn procedure and applications rather than formula and derivations. Tables/charts/handbooks are to be supplied in exams. | ASSIGNMENT 04 |

**Suggested Books/Readings:**

- **Dr. A K JAIN RCC DESIGNS**
- **S S BHAVIKATTI DESIGN OF RCC ELEMENTS**

**MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA**
**Affiliated to GGSIPU, Approved By COA & AICTE**

- **V N VAZIRANI DESIGN OF RC STRUCTURES.**

**Faculty Details:**

| | Section A | Section B | Section C |
|---|---|---|---|
| Name of Subject Faculty | | | |
| Signature with Date | | | |

**Prepared by:** Er. KAPIL PRABHAT VERMA 01/08/25

**Signature of Director: PROF. BIJAY DASH** (01-08-2025) 21-08-2025

MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA
Affiliated to GGSIPU, Approved By COA & AICTE

**B. ARCH**
**DETAILED TEACHING SCHEDULE (2025-26)**

| | |
|---|---|
| Year: 2nd year | Semester : Sem 3 |
| Subject Code: AP-221 | Subject: THEORY OF STRUCTURES III |
| Subject Type: Theory | Credits: 03 |

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 (UNIT 01) | Plain cement concrete: History of concrete in building works, modern concrete mix, curing and strength of concrete, effect of temperature, shrinkage and curing. | |
| Week 2 | Reinforced cement concrete (RCC): Difference between plain and Reinforced cement concrete and their applications, functions of reinforcement in RCC. | |
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| Week 4 | Column and strut Definition, End conditions, Buckling and critical loads, slenderness ratio, various column theories, stress distribution of the section of the eccentrically loaded rectangular column, the middle third rule, core or kernel of section(rectangular or circular sections) | |
| Week 5 (UNIT 02) | Cement: Cement manufacturing and properties, Grades 33, 43 and 53 cement. Different types of cement and their properties. Concrete: structural properties and variation of strength with age, Factors affecting strength of concrete, cube test for strength, standard strength grades of concrete. | ASSIGNMENT 01 |
| Week 6 | Curing of concrete: Needs, Methods, Duration of concrete, implication of inadequate curing. Workability of concrete: Meaning and its functions, Slump and compaction factor test for wokability,Workability Requirements at site, | |
| Week 7 | Water cement ratio and its effect on strength of concrete, Abhrams law of water cement ratio, Effect of W/c ratio on strength of concrete. Durability of concrete: Meaning of the term causes detoriation of RCC members, preventive measures as per IS 456-2000.Requirement of minimum cement content, concrete grades and maximum w/c ratios for different exposure conditions. | |
| Week 8 | Nominal and design concrete mixes, Basic difference merits and demerits of each and their applications, Basic principles of concrete mix design, concept of weigh batching concrete, Manufacturing of concrete: In situ and ready mix concrete | |

| | | |
|---|---|---|
| | (RMC), Merits and demerits of applications of each type of reinforcement and their allowable stresses mild steel VS high yield strength Deformed bars and relative merits of HYSD bars. Present trends in use of reinforcement. | |
| Week 9 (UNIT 03) | Theory of RCC Design,Behaviour of heterogeneous materials in direct force and bending, idea of neutral axis, compression Zone, tension Zone, Lever arm and moment of resistance of an RC design. | ASSIGNMENT 02 |
| Week 10 | Mid Term Examination | |
| Week 11 | Basic assumptions and methods of RCC Design, concepts of working stress method (WSD), Ultimate load method (ULM), and limit state method (LSM) of RCC design. (Only LSM of RCC design to be dealt using Fe 415 grade steel reinforcement, working stress method of design, and mild steel of Fe250 are obsolete in use and will not be dealt.) | |
| Week 12 (UNIT 04) | Design of RCC members: Design and detailing of following RCC elements using design of tables of SP-16(No formula to be derived | ASSIGNMENT 03 |
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| Week 14 | One way simply supported rectangular/square RCC Slabs. Two ways simply supported rectangular/square RCC slabs. | |
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| Week 16 | Isolated square footing for axially loaded RCC columns (footing to be designed for only bending, calculations for beam and punching shear not included) option to provided tapered footing or footing of uniform depth to be given in exams.) | |
| Week 17 | Design for shear reinforcement of beams using design Tables of SP 16(only stirrups shear reinforcement to be covered in design. Calculation for bent up bars as shear reinforcement not covered). | |
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**Suggested Books/Readings:**

- **Dr. A K JAIN RCC DESIGNS**
- **S S BHAVIKATTI DESIGN OF RCC ELEMENTS**

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- **V N VAZIRANI DESIGN OF RC STRUCTURES.**

**Faculty Details:**

| | Section A | Section B | Section C |
|---|---|---|---|
| Name of Subject Faculty | | | |
| Signature with Date | | | |

**Prepared by:** Er. KAPIL PRABHAT VERMA 01/08/25

**Signature of Director: PROF. BIJAY DASH** (01-08-2025) P. Dash 21-08-2025

# MBS COLLEGE

**Sector-9, Dwarka, New Delhi**
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2024-25

| | |
|---|---|
| YEAR : 2nd Year. | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP - 223 | SUBJECT TITLE: HISTORY OF ARCHITECTURE – III |
| SUBJECT TYPE: THEORY | CREDITS: 02 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objectives:**

1. To recognize the most important broad categories of pre industrial Architecture of Europe during Medieval Period and Renaissance
2. To study European Style architecture in Colonial India and track its influence and impact

**Specific Objectives:**

1. To allow students to be able to specify the chronology of European style architecture
2. To study and attain in depth knowledge on categorization of specific architecture style with examples

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT |
|---|---|---|
| 1st Week (1st Aug – 8th Aug) | **LECTURE 1**<br>INTRODUCTION TO THE SYLLABUS<br>THE LAST YEAR OVERVIEW TO DEVELOP LINK | |
| 2nd Week (11th Aug – 15th Aug) | **LECTURE 2**<br>EARLY CHRISTIAN | **ASSIGNMENT 1**<br>**EARLY CHRISTIAN SKETCHES**<br>1. Old St. Peter's Basilica (Rome)<br>2. Santa Sabina façade & plan<br>3. Nave elevation with clerestory<br>4. Baptistery layout<br>5. Apse mosaic composition |
| 3rd Week (18st Aug – 22nd Aug) | **LECTURE 3**<br>ROMANESQUE ARCHITECTURE | **ASSIGNMENT 2**<br>**ROMANESQUE ARCHITECTURE SKETCHES**<br>1. Durham Cathedral (interior vaulting)<br>2. Speyer Cathedral façade<br>3. Barrel vault section<br>4. Romanesque arch vs Gothic arch Comparison<br>5. Tympanum of Vézelay Abbey |
| 4th Week (25th Aug – 29th Aug) | **LECTURE 4**<br>BYZANTINE ARCHITECTURE | **ASSIGNMENT 3**<br>**BYZANTINE ARCHITECTURE SKETCHES**<br>1. Hagia Sophia (plan + dome section)<br>2. Pendentive diagram<br>3. San Vitale mosaic sketch<br>4. Onion dome cluster (typical Byzantine profile)<br>5. Greek cross plan layout |
| 5th Week (1st Sept – 5th Sept) | **LECTURE 5**<br>GOTHIC ARCHITECTURE IN CONTINENTAL EUROPE AND ENGLAND<br>4.1 GREAT CATHEDRAL- NOTRE DAME, CANTERBURY | **ASSIGNMENT 4**<br>**GOTHIC ARCHITECTURE SKETCHES**<br>1. Notre Dame de Paris façade<br>2. Canterbury Cathedral vaulting<br>3. Rose window tracery |

| | | |
|---|---|---|
| | | 4. Flying buttress detail<br>5. Gothic spire study |
| 6th Week (8th Sept - 12th Sept) | **LECTURE 6**<br>RENAISSANCE | **ASSIGNMENT 5**<br>**RENAISSANCE, EARLY RENAISSANCE SKETCHES**<br>1. St. Maria del Fiore dome section<br>2. Brunelleschi's perspective grid<br>3. Palazzo Medici-Riccardi elevation<br>4. Classical orders in Renaissance context<br>5. Tempietto plan by Bramante |
| 7th Week (15th Sept – 19th Sept) | **LECTURE 7**<br>EARLY RENAISSANCE- ST. MARIA DEL FIORE, FLORANCE | |
| 8th Week (22nd Sept – 26th Sept) | **LECTURE 8**- LATE RENAISSANCE, MICHALANGELO, PALLADIO, ST. PETERS ROME | **ASSIGNMENT 6**<br>**LATE RENAISSANCE SKETCHES**<br>1. Michelangelo's Laurentian Library stairs<br>2. St. Peter's Basilica plan (Michelangelo's version)<br>3. Palladio's Villa Rotonda elevation<br>4. Rustication detail (Palazzo style)<br>5. Mannerist façade sketch |
| 9th Week (29th Sept – 3rd Oct) | **REVISION / DOUBT CLEARING CLASS – SKETCHES CHECKING** | |
| 10th Week (6th Oct – 10th Oct) | **MID-TERM EXAMINATION** | |
| 11th Week (13th Oct – 17th Oct) | **LECTURE 9**<br>BAROQUE, ST. PAUL LONDON | **ASSIGNMENT 7**<br>**BAROQUE ARCHITECTURE SKETCHES**<br>1. St. Paul's Cathedral (London) elevation<br>2. Curvilinear staircase detail<br>3. Bernini's colonnade at St. Peter's Square<br>4. Oval-shaped nave plan<br>5. Dramatic shadowed interior study |
| 12th Week (20th Oct - 24th Oct) | **LECTURE 10**<br>NEOCLASSICAL | **ASSIGNMENT 8**<br>**NEOCLASSICAL ARCHITECTURE SKETCHES**<br>1. Panthéon (Paris) dome & portico<br>2. US Capitol façade sketch<br>3. Ionic and Corinthian column studies<br>4. Temple front elevation<br>5. Symmetrical axial plan analysis |
| 13th Week (27th Oct - 31st Oct) | **IPU SPORTS MEET (29th October 2025 to 31st October 2025)** | |
| 14th Week (3rd Nov – 7th Nov) | **LECTURE 11**<br>EUROPEAN ARCHITECTURE IN COLONIAL INDIA<br>GOA- PORTUGUESE | **ASSIGNMENT 9**<br>**EUROPEAN ARCHITECTURE IN INDIA SKETCHES**<br>1. Portuguese Church in Goa façade<br>2. Pondicherry street elevation<br>3. Indo-French colonial bungalow section<br>4. Fort entrance gate detail (Madras)<br>5. Victorian Gothic style in Mumbai (e.g., CST station) |
| 15th Week (10th Nov – 14th Nov) | **LECTURE 12**<br>FRENCH, PONDICHERRY FOCUS FORTS CHURCH | |
| 16th Week (17th Nov – 21st Nov) | **LECTURE 13**<br>EUROPEAN ARCHITECTURE IN COLONIAL INDIA II<br>MADRAS, CALCUTTA, BOMBAY | |
| 17th Week (24th Nov – 28th Nov) | **LECTURE 14**<br>CANTONEMENT HILL STATIONS FOCUS- PORT FORT CHURCH, INSTITUTIONS, BUNGLOWS, BARRACKS | |

## SUGGESTED BOOKS/READINGS:

1. Fletcher "a history of architecture"
2. Brown, Percy, Indian Architecture, Buddhist and Hindu
3. Brown, Percy, Indian Architecture (Islamic Period)
4. Volwhasen Andreas, Architecture of the World: Indian & Islamic
5. Raeburn, Michael, Architecture of the Western World
6. Grover, Satish , History Indian of Architecture
7. Kostoff, Spiro, History of Architecture, Rituals and Settings.
8. C. Tadgell, The History of Architecture in India
9. Bannister Fletcher, History of Architecture
10. Nader Ardalan and Laleh Bakhtiyar, Sense of Unity.
11. Watkin, David, History of Architecture
12. Wittkower, Roger. Architecture of Humanism

Prepared by: Ar. Shubhi Khare Signature: Shubhi

Submitted on: 21/07/25

Director: Prof. Bijay Dash (21-07-2025)

P. Dash
21-08-2025

# MBS COLLEGE

**Sector-9, Dwarka, New Delhi**

Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2024-25

| | |
|---|---|
| YEAR : 2nd Year. | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP - 225 | SUBJECT TITLE: BUILDING MATERIAL SCIENCES – III |
| SUBJECT TYPE: THEORY | CREDITS: 02 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objectives:**

1. To have an understanding of the properties, characteristics, strength, manufacture and processing of materials.
2. To sensitize the students to the use of these naturally occurring materials in the context of its application and its impact on environment.

**Specific Objectives:**

1. Develop knowledge of material science and behavior of various building materials used in construction.
2. Identify the construction materials required for the assigned work.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | INNOVATIVE SUBMISSION / ASSIGNMENT |
|---|---|---|
| 1st Week (1st Aug – 8th Aug) | **Introduction: Materials, classification and Brief of syllabus to be covered.** | |
| 2nd Week (11th Aug – 15th Aug) | **Cement:** Definition, Composition, Application/usage as Building Material, Types | **Assignment-1: Cement Profile Booklet:** Create a visual fold-out booklet covering cement types, usage, and test procedures with annotated sketches. |
| 3rd Week (18st Aug – 22nd Aug) | **Cement:** Manufacturing process and Various Test for Quality of cement. | |
| 4th Week (25th Aug – 29th Aug) | **Aggregates and Admixtures:** Aggregates: material, function properties and usage. | **Assignment-2: Aggregate Sample Matrix:** Collect samples of fine and coarse aggregates. Create a tactile matrix displaying size, texture, and usage. |
| 5th Week (1st Sept – 5th Sept) | **Aggregates and Admixtures:** Types-Fine, coarse and cyclopean | |
| 6th Week (8th Sept - 12th Sept) | **Introduction to Plain Cement Concrete and Reinforced Cement Concrete** | **Assignment-3: Mixing Demo Video:** Record a short video or photo sequence of mixing PCC at home with measured ratios. Add a voiceover or captions explaining each step.<br><br>**Assignment-4: Reinforcement Sketch Cards:** Prepare sketch cards for beam, slab, column reinforcement placements—like flashcards with key terms and diagrams. |
| 7th Week (15th Sept – 19th Sept) | **Plain Cement Concrete:** Properties, Mixing, Curing and usage | |
| 8th Week (22nd Sept – 26th Sept) | **Reinforced Cement Concrete:** Reinforcement- Introduction to Types, sizes and placement in beams, columns, lintels, slabs, etc. | |
| 9th Week (29th Sept – 3rd Oct) | **Reinforced Cement Concrete:** Properties, Mixing, Curing and usage Ferro-cement and Fiber reinforced concrete | |
| 10th Week (6th Oct – 10th Oct) | **MID-TERM EXAMINATION** | |
| 11th Week | **Waterproofing materials:** | |

| | | |
|---|---|---|
| (13th Oct – 17th Oct) | Properties, Bituminous and traditional materials for damp proofing and waterproofing | **Assignment-4: Material Tag Poster:** Create a poster labeling traditional and modern waterproofing materials with usage zones and comparative ratings (eco-friendliness, cost, ease). |
| 12th Week (20th Oct - 24th Oct) | **Waterproofing materials:** Application and Usage | |
| 13th Week (27th Oct - 31st Oct) | **IPU SPORTS MEET (29th October 2025 to 31st October 2025)** | |
| 14th Week (3rd Nov – 7th Nov) | **Insulation materials:** Properties, Traditional heat Insulation materials for roofs and super structure. | **Assignment-5: Thermal Mapping** Choose a room and observe heat gain/loss across walls, windows, and roof. Identify hot/cold spots and suggest insulation materials to improve comfort. Submission of a sketch plan or photo with notes + 1-page summary. |
| 15th Week (10th Nov – 14th Nov) | **Insulation materials:** Application and Usage | |
| 16th Week (17th Nov – 21st Nov) | **Revision of Syllabus with discussion on Important Topics** | |
| 17th Week (24th Nov – 28th Nov) | **Final Submission of assignments and finalization of marking.** | |

## LEARNING OUTCOMES:

1. Students will have in depth knowledge of all the raw and processed materials required in F Construction and basement.
2. Enhancement of knowledge regarding latest materials in trend through market surveys.
3. Student can implemént knowledge gained of materials in their Architectural Design and Building Construction Studio work.

## SUGGESTED BOOKS/READINGS:

1. SK Duggal, Building Materials, New Age Publications 4th Edition, April, 2014.
2. B C Punmia, Ashok Kumar Jain and Arun Kumar Jain, Building Construction, Laxmi Publications (P) Ltd., New Delhi, 10th Edition, 2013.
3. Roy Chudley "Construction Technology" Vol. - 1 & 2,2nd Edition, Longman, UK, 1987.
4. PC Varghese, Building Construction, Prentice Hall of India Private Ltd., New Delhi, 2nd Edition, 2007.

Prepared by: Ar. Shubhi Khare Signature.....

Submitted on: 21/07/25

Director: Prof. Bijay Dash 23/07/2025

21-08-2025

# MBS COLLEGE

**Sector-9, Dwarka, New Delhi**
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2024-25

| | |
|---|---|
| YEAR : 2nd Year. | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP - 227 | SUBJECT TITLE: WATER SUPPLY AND WASTE MANAGEMENT |
| SUBJECT TYPE: THEORY | CREDITS: 02 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objective -**

- The objective of the course is to provide a systematic understanding of environmental support systems as they apply to the human habitat, with special reference to water, water-borne waste, and solid waste.
- The course will integrate and emphasize issues related to environmental sustainability.

**Specific Objectives -**

1. To understand the basic principles of water supply and sanitation.
2. To familiarize the student with the terminologies used in sanitation and drainage.
3. To understand the system of distribution of water, sewage disposal, solid waste management, and rainwater harvesting at the local, regional, and urban levels.
4. To familiarize the student with plumbing bye-laws as per BIS and NBC.
5. To make them enable to draw the piping layout and detail layout plan of drains, traps, & fixtures for sanitation & drainage of a residential, commercial and multi-story building.
6. To understand the evaluating system of Teri-Griha and Leed for water supply and waste disposal.
7. To get site exposure to water supply and sanitation systems in different types of buildings on site.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | INNOVATIVE SUBMISSION / ASSIGNMENT |
|---|---|---|
| 1st Week (1st Aug – 8th Aug) | Water availability and Sources of Water, Water source development; rain, ground water, water bodies, sea water. | **Assignment 1: Filtration Pavilion Design**<br>Design a small public structure that visually incorporates primary and secondary water treatment components. Students will submit architectural drawings, water system diagrams, and a brief concept note highlighting design intent, water quality standards, and community benefit.<br>Skills gained: Environmental design, technical integration, spatial creativity. |
| 2nd Week (11th Aug – 15th Aug) | Water demand: Requirements of various uses, standards | |
| 3rd Week (18st Aug – 22nd Aug) | Water Quality and Treatment: standards of water quality, water treatment methods: primary treatment, secondary treatment. | |
| 4th Week (25th Aug – 29th Aug) | Distribution of Water- regional, urban, local, building. Storage of water, pressure- gravity and pumps, supply systems, piping, metering. | |
| 5th Week (1st Sept – 5th Sept) | Terminology used in sanitation and drainages. Collection & Conveyance of Sewage. Sewage Disposal at Urban level. Conventional & Non-conventional methods of sewage disposal, low cost techniques of sewage disposal: CBRI,Sulabh Sauchalaya, etc | **Assignment 2: Water Supply & Sewage Layout**<br>Draw a schematic diagram of your residence/building showing:<br>• **Water supply**: source, tank, pipes, fixtures |
| 6th Week (8th Sept - 12th Sept) | Sewage characteristics-Grey and black water<br>Primary treatment of sewage. Standards for sewage treatment, disposal and recycling. | |

| | | |
|---|---|---|
| 7th Week (15th Sept – 19th Sept) | Secondary Treatment of Sewage Filters, Activated Sludge Process, Decentralized Waste-water treatment systems (DEWATS), Ecosan, grey water treatment. | • **Sewage disposal:** drains, grey/black water, treatment (e.g., septic tank, soak pit)<br><br>Include basic labels and a short note explaining the system. |
| 8th Week (22nd Sept – 26th Sept) | Sewers: Construction & Materials. Manholes: Construction, materials, Types, invert levels, spacing etc., other sewer appurtenances | |
| 9th Week (29th Sept – 3rd Oct) | Sewage disposal through Septic Tanks & Soak Pits: System, Viability conditions, Advantages & Disadvantages. | |
| 10th Week (6th Oct – 10th Oct) | **MID-TERM EXAMINATION** | |
| 11th Week (13th Oct – 17th Oct) | Storm Water: Factors affecting storm water drainage: calculation of run-off, retention period, surface and piped drainage.<br>Rain water harvesting | |
| 12th Week (20th Oct - 24th Oct) | Systems of water supply in buildings. Hot water supply systems in building. Domestic plumbing fixtures and accessories. | **Assignment-3: Market Survey of Plumbing Fixtures**<br>Survey plumbing fixtures like taps, showers, basins, WCs, and water heaters from stores or online. Note types, materials, prices, brands, and any water-saving or eco-friendly features. |
| 13th Week (27th Oct - 31st Oct) | **IPU SPORTS MEET (29th October 2025 to 31st October 2025)** | |
| 14th Week (3rd Nov – 7th Nov) | Piping layouts and detail layout plan of drains, traps, & fixtures for sanitation & drainage of residential, commercial and multi-story buildings. | **Assignment-4: Water, Sanitation & Waste Layout**<br>Draw a **detailed layout plan** of your residence/building showing:<br>• **Water supply system:** tanks, piping, hot water fixtures<br>• **Sanitation & drainage:** traps, grey/black water lines, septic/soak pit<br>• **Solid waste points:** areas for waste collection, segregation, composting<br>• **Green rating features:** any water-saving or eco-friendly systems (Teri-Griha/LEED) |
| 15th Week (10th Nov – 14th Nov) | Solid Waste Management: Definitions. /Garbage/ Refuse Collection. Types of waste; segregation, recycling, composting. Waste as resource. | |
| 16th Week (17th Nov – 21st Nov) | Teri-Griha, Leed, evaluating system for water supply and waste disposal. | |
| 17th Week (24th Nov – 28th Nov) | **REVISION**<br>**Final Submission of assignments and finalization of marking.** | |

## LEARNING OUTCOMES:

- Students will be able to understand the basic principles of water supply and sanitation..
- Students will be able to understand the water supply and water distribution system at regional, urban, and local levels.
- Students will be familiarized with the terminologies used in sanitation and drainage.
- Students would be familiarized with the sewage characteristics, treatment methods, disposal, and recycling process.

- Student will be familiarized with the bye-laws as per BIS and NBC and the evaluating system of Teri-Griha and Leed for water supply and waste disposal.
- Students will be able to understand and prepare layout plans of drainage and sanitation system, for a residential, commercial and multi-story building.
- Students will be able to understand the issues related to environmental sustainability and methods to resolve them through this course.

## SUGGESTED BOOKS/READINGS:

1. Rangwala S.C. Water Supply & Sanitary Engineering [Environmental Engineering]. Charotar publishing House Anand, India. (2000)
2. Raju B.S.N., Water Supply & Wastewater Engineer, Tata McGraw-Hill Publishing Company Ltd., New Delhi.
3. S.G. Deolalikar, Plumbing Design & Practice, Tata McGrew Hill Publishing Company Ltd., New Delhi (1994).
4. Panchdhari, A.C., Water Supply and Sanitary Installations, Design Construction and Maintenance, Wiley Eastern Limited 1993.

**Prepared by:** Ar. Shubhi Khare
**Submitted on:** 21.07.25

**Signature**

**Director: Prof. Bijay Dash** 21-07-2025

21-08-2025

# MBS COLLEGE

Sector-9, Dwarka, New Delhi
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2024-25

| | |
|---|---|
| YEAR : 2nd Year. | SEMESTER: SEM 3 (ODD SEMESTER) |
| SUBJECT CODE: AP - 229 | SUBJECT TITLE: SOCIOLOGY |
| SUBJECT TYPE: THEORY | CREDITS: 02 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

**OBJECTIVES**

**General Objectives:**

1. To expose students to the relationship between man and environment.
2. To develop an understanding regarding the need of communication within the society.

**Specific Objectives:**

1. To allow students to be able to understand impact of society on architecture.
2. TO identify different types of sociology and social institutions.
3. To trace the space requirements for both rural and urban spaces.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT |
|---|---|---|
| 1st Week (1st Aug – 8th Aug) | Introduction to Sociology<br>Need of Sociology | **Assignment 1**<br>**Introduction, Relation to Architecture, Types of Sociology:**<br>Write a short essay and create a conceptual diagram showing how different types of sociology (macro, micro, classical, modern) influence architectural design, using at least two built examples. |
| 2nd Week (11th Aug – 15th Aug) | Relation between sociology and architecture with examples | |
| 3rd Week (18st Aug – 22nd Aug) | **Types of Sociology:**<br>Classical and Modern Sociology<br>Macro sociology and Micro sociology | |
| 4th Week (25th Aug – 29th Aug) | **Elaborate:** Society and its Types | **Assignment 2**<br>**Society, Social Institutions, Built Environment**<br>Select one social institution (school, market, religious place) and document its spatial needs in urban and rural contexts through photos, sketches, and a 200-word analysis. |
| 5th Week (1st Sept – 5th Sept) | Elaborate and Discuss Social institutions and Social Interaction | |
| 6th Week (8th Sept - 12th Sept) | Sociology of space and built environment | |
| 7th Week (15th Sept – 19th Sept) | Sociology of artifacts | **Assignment 3**<br>**Artifacts, Social Activities, Urban vs Rural Use**<br>Identify three daily-use artifacts (bench, water cooler, notice board) and reflect on how they shape social behavior across different spaces through annotated sketches or a photo essay. |
| 8th Week (22nd Sept – 26th Sept) | Space requirements for social activities and space utilization in urban and rural areas | |
| 9th Week (29th Sept – 3rd Oct) | Presentation of Two Groups | |
| 10th Week (6th Oct – 10th Oct) | **MIDTERM EXAMINATION** | |
| 11th Week (13th Oct – 17th Oct) | Relation between structure and superstructure: Karl Marx | **Assignment 4** |

| | | |
|---|---|---|
| 12th Week (20th Oct - 24th Oct) | Space as a social product: Henri Lefebvre | **Structure vs Superstructure, Henri Lefebvre** Choose a public space (plaza, metro station, park) and analyze how social structures and power dynamics shape spatial usage, referencing Lefebvre's theory. Include diagrams and a brief write-up. |
| 13th Week (27th Oct - 31st Oct) | | |
| 14th Week (3rd Nov – 7th Nov) | Relationship of space and power | **Assignment 5 Space and Power, Final Presentations** Create an illustrated poster showing how spatial planning reflects power relations—e.g., gated communities vs informal settlements, or public buildings vs private ownership. |
| 15th Week (10th Nov – 14th Nov) | Presentation of two Groups | |
| 16th Week (17th Nov – 21st Nov) | Presentation of two Groups | |
| 17th Week (24th Nov – 28th Nov) | **Final Submission of assignments and finalization of marking.** | |

## LEARNING OUTCOMES:

- Students will be able to study the typology of social organizations/institutions
- Students will be able to study different space theories and types of societies
- Students can interrelate society, space and architecture

## SUGGESTED BOOKS/READINGS:

1. Sociology by Anthony Giddens
2. Environment and Behaviour
3. Human Aspects of Urban Form
4. Introduction to Sociology by D.R. Sachdeva
5. Main Currents of Sociological Thought by Raymond Aron
6. Coser, Lewis. Masters of Sociological Thought, HBJ: Newyork, 1977
7. Giddens, Anthony. Capitalism and Modern Social Theory. CUP, 1994

Prepared by: Dr. Shubhi Khare Signature:

Submitted on: 21/07/25

Director: Prof. Bijay Dash 21-07-2025

21-08-2025

MBS COLLEGE

Affiliated to Guru Gobind Singh Indraprastha University, approved by CoA & AICTE.

Sector-9, P.S.P. Area, Dwarka, New Delhi - 110077

## MBS SCHOOL OF PLANNING AND ARCHITECTURE

### TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| **Year : 3rd ( III )** | **Semester : 5th ( V )** |
| **Subject Code : AP - 301** | **Subject : Architectural Design - V** |
| **Subject Type : Studio** | **Credits : 10** |

**General Objectives**

- To learn designing a reasonably complex and large building for a contemporary function other than residential.

**Specific Objectives**

- To design a commercial mall that is functional, efficient, and comprising all the basic facilities.
- To blend technical and functional requirements of a mall into a design and offer an ambience which boosts commerce, safety, cleanliness, and occupant comfort.
- To create clear, segregated paths for the movement of people and materials within the built structure keeping universal access in mind.

| WEEK | TOPIC | LECTURE / STUDIO EXERCISE | ACTIVITY/ASSIGNMENT |
|---|---|---|---|
| 1 | INTRO-DUCTI-ON TO DESIGN PROBL-EM | **Lecture** : Mall Design covering various characteristics of Malls The discussion will be conducted on the design problem requirements, development controls, timeline, stages of Design Development etc. | **Student Interaction :** characteristics of malls, technical and functional requirements. **Formation of Groups** for Analytical Studies. |
| 2 | LITER-ATURE STUDY | Discussion : Mall design, Master Plan of Delhi, NBC Guidelines, Fire norms, Parking and Services, UBBL of Delhi, URDPFI Guidelines, etc | Group Presentations by students. **(100 marks)** |
| 3 | CASE STUDIE S | **Lecture**: Parameters of mall case study This will include identification of case studies as per project requirements, outlining area requirements, study of aspects w.r.t. location, circulation, space allocation, areas, form, order of elements, sections, services and compliance of existing norms. | Group Presentations by students. **(100 marks)** |
| 4 | SITE ANALY- | **Site Visit** will be conducted by faculty to introduce the site to students for | Students will carry out studies and analyses for |

| | | | |
|---|---|---|---|
| | SIS | the given assignment. Site analysis of the actual site will be done, reference to context, climate, vegetation, topography, accessibility, location, etc. | all the parameters required on site under the guidance of faculty members. |
| | | Along with the above-mentioned parameters, the students in the group will analyze the potential and constraints of the site. | **Group Submission** : Sheets as per their understanding of the site. **(50 marks)** |
| 5 | ZONIN-G & CONCE-PT DEVEL-OPME-NT | Teachers will explain the importance of the concept in relation to site analysis and the discussion will be held for various possibilities of zoning options. | **Class Exercise** - Development of concept and zoning by students using butter sheets in the form of sketches. |
| | | Students will prepare the draft area statements as per the requirement given. | **Submission** : Site Zoning & Draft Area Statement **(50 Marks)** |
| 6 | DESIGN DEVEL-OPME-NT | **Lecture**: Design considerations (malls) | **Class Exercise :** Development of floor plans using butter sheets and grids. |
| | | One on One Interaction, Discussion, & development of detailed drawings. | |
| 7 | | **Lecture** : Site Planning covering various aspects like vehicular and pedestrian movement, placement of blocks, and elements of landscape design. | **Class Exercise** : Development of Site Plan. |
| | | One to One Interaction, Discussion, and Development of building blocks. | |
| 8 | DESIG-N DEVEL-OPME-NT | **Review :** One on one interaction, discussion and suggestions will be given by faculty | **Submission** : Concept, zoning, area statement, Site Plan, and all floor plans **(200 marks)** |
| 9 | | **Lecture** : Development of elevations and the correct representation of the sections. | **Class Exercise** : Development of Elevations and sections. |
| 10 | Mid Term Examination | | |
| 11 | | Development of site plan and site sections. One to One Interaction, discussion and suggestions. | **Class Exercise** : Development of site plan and site sections |

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|---|---|---|---|
| 12 | DESIGN DEVELO-PMENT | **Lecture** : Presentation Techniques, sequence of sheets and key points to prepare Final Portfolio. Discussion with students on upgraded Floor Plans, Site plan, Landscape Plan, elevations and sections. | **Class Exercise** : Drawings to be improved by students. |
| 13 | **PRE FINAL SUBMIS-SION** | **PRE -FINAL SUBMISSION** One to One Interaction, discussion and suggestion | Concept & area statement, site plan, site sections, parking, landscaping, all floor plans, elevations & sections **(500 marks)** |
| 14 & 15 | DESIGN UPGRAD-ATION | Discussion with students on upgraded Floor Plans, Site plan, Landscape Plan, elevations and sections etc. | **Class Exercise** : Drawings to be improved by students. |
| 16 | **FINAL PORTFO-LIO SUBMIS-SION** | One to One Interaction, discussion and suggestion will be given by faculty members | Concept & area statement site plan, landscaping, all floor plans, parking, site sections, elevations & sections, 3D view, model **(1000 marks)** |

**Suggested Readings / References:**

1. **A Visual Dictionary of Architecture** *Francis D. K. Ching, 1996*
2. **Architects' Data 3rd Edition** *P. Nuefert, 2000*
3. **Principles of Modern Architecture** *Norberg-Schulz, 2000*
4. **Time-saver Standards for Architectural Design: Technical Data for Professional Practice, 8th Edition** *D. Watson, 2005*
5. **Master Plan of Delhi, 2021,** *DDA*
6. **National Building Code, 2006,** *BIS*
7. **Unified Building Bye Laws for Delhi, 2016,** *DDA*
8. **Urban and Regional Development Plans for Formulation and Implementation, 2015,** *MoUD*.

**DATE: 24-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA
Affiliated to GGSIPU, Approved By COA & AICTE

**B. ARCH**
**TEACHING SCHEDULE (2025-26)**

| | |
|---|---|
| **Year: 3rd year** | **Semester : Sem 5** |
| **Subject Code: AP-321** | **Subject: THEORY OF STRUCTURE –V** |
| **Subject Type: Theory** | **Credits: 04** |

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 (unit 01) | Loading Assessment: Various loads on building, Design loads codes applicable in India: IS 875 and IS 1983, Preview of dead loads and live Loads as per IS 875, Part 1 and 2. | |
| Week 2 | Calculation of dead load + live load in building, load intensity in a slab, loads on supporting Beams, columns and foundation. | |
| Week 3 | Introduction to soil mechanics: Classification of soils for Engineering purpose and their characteristics, Soil investigations: Soil test reports, information available in a soil test report, concept of ultimate safe bearing capacity of soils and their determination. | |
| Week 4 | Foundation systems: Types and feasibility criteria, Isolated, combined, Raft and pile foundations, foundation for treacherous soil like black cotton soil and filled up soils. Under reamed pile foundation and their application for black cotton soil and filled up soil. | |
| Week 5 (UNIT 02) | Retaining walls: RCC and masonry retaining walls cantilever and counter fort retaining walls | ASSIGNMENT 01 |
| Week 6 | Structural components and principles of design (No detailed design required). | |
| Week 7 | Basement walls and earth pressure on retaining walls | |
| Week 8 | Calculation of active and passive earth pressure with and without surcharge on retaining walls with vertical faces (calculation for stability of retaining walls and design of base of retaining walls not required). | |
| Week 9 (UNIT 03) | Introduction to horizontal loads on buildings, general characteristics of horizontal loads, | ASSIGNMENT 02 |
| Week 10 | Mid Term Examination | |
| Week 11 | Introduction to wind loads, relation between wind speed and wind pressure, factors affecting wind pressure on a building, | |

| | | |
|---|---|---|
| Week 12 | Introduction to IS 875-part 3 & part 4.Wind zones of India. Calculation of wind loads for a simple building. | |
| Week 13 (UNIT 04) | Earthquake loads: Basic concepts, causes of Earthquake, plate tectonics, Earthquake regions of the world, | ASSIGNMENT 03 |
| Week 14 | Earthquake terminology VS magnitude,intensity,epicenter, magnitude and intensity scales, | |
| Week 15 | Prediction and probability of earthquakes ,some past earthquakes of India and the world | |
| Week 16 | Introduction to IS:1893:2002,seismic zones of India, seismic zone factors, | |
| Week 17 | Calculation of Earthquake loads on a simple building, and its distribution along height of the building. | |
| Week 18 | REVIEW | ASSIGNMENT 04 |

**Suggested Books/Readings:**

- **Aggarwal P & shrikhande M, Earthquake resistant design of structures.**
- **V N S Murthy, Principles and practices of soil mechanical and foundation Engineering.**

**Faculty Details:**

| | Section A | Section B | Section C |
|---|---|---|---|
| Name of Subject Faculty | | | |
| Signature with Date | | | |

**Prepared by:** Er. KAPIL PRABHAT VERMA 01/08/25

**Signature of Director: PROF. BIJAY DASH** 01/08/2025

# MBS COLLEGE

Sector-9, Dwarka, New Delhi

Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2025-25

| | |
|---|---|
| YEAR [illegible] | SEMESTER:SEM 5 (ODD SEMESTER) |
| SUBJECT CODE:AP-323 | SUBJECT TITLE:HIST. OF ARCH. V |
| SUBJECT TYPE: THEORY | CREDITS:02 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

### OBJECTIVES

**GeneralObjective** – To understand the contemporary practice in architecture with respect to significant developments in recent History.

**Specific Objectives -**

- To explore and understand the evolution and growth of various academic and professional institutions of architecture in India.
- To understand the transition from Colonial to Modernism and to asses the western influence on Indian Architecture at the time of independence.
- To assess the architectural influence of modern masters in post independent India and how architects in India began realizing the limitations of modernist architecture and developed their own design vocabulary.
- To analyze how architects tried to critically rethink the design scenario rather than blindly accepting the parameters of modern architecture and how globalization in architecture istransforming cities, shifting spatial patterns, and shaping the built form and environment.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | WEIGHTAGE (Marks) |
|---|---|---|---|---|
| 1 | 4th to 8th Aug 2025 | **Introduction to syllabus**<br>**UNIT-1**<br>Lecture on "Beginning of modern Institutionalization of Architecture in India (Academic)" | Preparing a time line of various educational and professional institutions of architecture in India. JJ College of Art and Architecture, Bombay, SPA, New Delhi, IITs, NIT's, CEPT Ahmedabad, CCA, Chandigarh, Indian Institute of Architects, Council of Architecture and PWD'S early work | |
| 2 | 11th to 14th Aug 2025 | Lecture on "Beginning of modern Institutionalization of Architecture in India (Professional) | | 20 |
| 3 | 18th to 22th Aug 2025 | Quiz and Discussion | | |
| 4 | 25th to 28th Aug 2025 | • **UNIT-2**<br>• Lecture on- "Import of Modernism in India" Discussion on transition from Neo classical, Colonial to Modernism (Part-1) | Preparing sheets on the work of western architects (who worked in India)and Indian Modern Architects , Architects practiced regionalism etc.<br><br>-(Should include Design language and minimum | |
| 5 | 1nd to 5th Sept 2025 | Lecture on- "Import of Modernism in India"<br>(Part-2) Discussion on work of Le Corbusier and Louis Kahn | | 20 |

| | | | | |
|---|---|---|---|---|
| 6 | 8th to 12th Sept 2025 | • **UNIT-3**<br>• Lecture on Modern Architects of India (Part-1)<br>• Discussion on works of Habib Rehman, AP Kanvinde | 5 Works in chronological order) | |
| 7 | 15th to 19th Sept 2025 | Lecture onModern Architects of India (Part-2)<br>Discussion and comparison of early and late works of B.V Doshi, Charles Correa, JA Stein | | |
| 8 | 22rd to 26th Sept 2025 | **MID-TERM EXAMINATION: 8th week** | | |
| 9 | 29th Sept to 3rd Oct 2025 | Discussion on Public Housing by DDA and Group discussion on the work of Modern Architects (what they learned from the various projects of above-mentioned architects) | Presentation by Students | |
| 10 | 6th to 10th Oct 2025 | **UNIT-4**<br>**Lecture on Regionalism Examples of Raj Rewal and Others, Discussion on Critical regionalism** Discussion on how it started and how it is practiced knowingly and unknowingly by various Architects of India | Report on Globalization and Conservation in Architecture) | 10 |
| 11 | 13th to 17th Oct 2025 | Alternative Technology (Laurie Baker, HUDCO and Others) Discussion on cost effective and material saving technologies by the Architects | | |
| 12 | 20st to 24th Oct 2025 | **Globalization- New Urban Architecture and its impact on Indian architecture.** Discussion on advent of new building types: Offices, malls, cineplex, Hotels etc. | | |
| 13 | 27th Oct to 31st Oct 2025 | **Discussion on- Corporate Organizations- NOIDA, GURGAON AND DELHI (Rise of Indian and Multi-National corporations and their Architecture. (How architecture changed the face of these cities)** | | |
| 14 | 3rdto 7th Nov 2025 | Lecture on Architecture responding to the Issues of conservation and sustainability and Presentation by students | | |
| 15 | 10th to 14th Nov 2025 | Revision and Assessment | | |
| 16 | 17thto 21nd Nov 2025 | Final assignment marking | | |

LEARNING OUTCOMES

At the end of this course students should be able to-

To trace how design philosophies transitioned from functional minimalism in modernism to experimental and sustainable approaches in contemporary architecture.

To examine how social needs, cultural shifts, and technological innovations shape architectural styles and methods.

To develop a critical design perspective and Cultivate the ability to evaluate and apply philosophies of architects and thinkers in creating responsive, inclusive, and future-forward architectural solutions.

SUGGESTED BOOKS/READINGS:


- Lang and Desai (1997) Architecture and Independence
- Bhatt. V and Scriver. P (1990) Contemporary Indian Architecture
- Story of Modern Architecture
- Colonial Modernities: Building, Dwelling and architecture in British India


**Prepared by: Prof. Alpna Rohatgi.** **Signature**

**Submitted on: 15:07:2025**

**Director: Prof. Bijay Dash** 15/07/2025

# MBS COLLEGE

Sector-9, Dwarka, New Delhi

Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2025-25

| | |
|---|---|
| YEAR :3rd Yr. | SEMESTER:SEM 5 (ODD SEMESTER) |
| SUBJECT CODE:AP-325 | SUBJECT TITLE:BUILDING MATERIAL SCIENCE V |
| SUBJECT TYPE: THEORY | CREDITS:02 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |

### GENERAL OBJECTIVES:

Aim is to learn to understand commonly used building materials, their general used in the Building Industry & to provide a base for environmentally responsible construction.

### SPECIFIC OBJECTIVES:

- Introduction to the basic technique of Extraction of metals.
- Processing of Materials for building industry.
- The concepts & techniques to evaluating their impact on environment & ecology.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | WEIGHTAGE (Marks) |
|---|---|---|---|---|
| 1 | 4th to 8th Aug 2025 | **UNIT I:** Introduction of Aluminum as a building material. Manufacturing and its Properties | | |
| 2 | 11th to 14th Aug 2025 | **UNIT I:**Introduction of Aluminum Sections and Sheets<br>Types of coatings in Aluminum Sections<br>Aluminum as a Building Material | **Assignment 1: Market survey of Aluminum Products, Prices and Collection of catalogs** | **15** |
| 3 | 18th to 22th Aug 2025 | **Discussion on Assignment 1 with Presentation with samples and catalogue.** | | |
| 4 | 25th to 28th Aug 2025 | • **UNIT II:**Introduction of Plastics and Its uses in Building Construction | | |
| 5 | 1nd to 5th Sept 2025 | **UNIT II:**Types of Plastics (Monomers and Polymers) in construction:<br>a. Acrylics<br>b. Nylon<br>c. PVC<br>d. Bakelite<br>e. Polythene<br>f. Polycarbonate<br>g. Polyethylene<br>h. Neoprene<br>i. EPDM rubber<br>j. Glass Fiber<br>k. Reinforced Plastic | **Assignment 2:** Market Survey of Plastic Products used in Building Construction. | **20** |
| 6 | 8th to 12th Sept 2025 | | | |
| 7 | 15th to 19th Sept 2025 | Types of Plastics-To be continued (Monomers and Polymers)<br>Acrylics, Nylon, PVC, Bakelite, Polythene, polycarbonate, polyethylene, neoprene, EPDM | | |

| | | | | |
|---|---|---|---|---|
| | | rubber Glass Fiber Reinforced Plastic in construction<br>Manufacturing Process and its Environmental Impact<br>**REVISION OF UNIT 1, 2 with Question Bank** | | |
| 8 | 22rd to 26th Sept 2025 | **MID-TERM EXAMINATION: 8th week** | TEST | 25 |
| 9 | 29th Sept to 3rd Oct 2025 | **UNIT III:**Introduction to Fundamental of Acoustical and Thermal treatments in Building | | |
| **10** | **6th to 10th Oct 2025** | **Annual Sports Meet -Tentative** | | |
| 11 | 13th to 17th Oct 2025 | **UNIT III:** Various Acoustic materials used in Buildings for Wall and Roof assemblies | Assignment 3: Presentation on case study of the acoustic material and its use (book/live) | 10MM |
| 12 | 20st to 24th Oct 2025 | **UNIT IV:Environmental Impact Evaluation of manufacture and use of Acoustic Materials** | | |
| 13 | 27th Oct to 31st Oct 2025 | **UNIT IV:Waterproofing Materials: Introduction and requirements Types of Waterproofing Materials and there Suitability of Waterproofing materials based on the building locations like foundations, Wall, Roof etc.** | **Assignment 4:** Case Study / Market survey of waterproofing materials. | **15** |
| 14 | 3rdto 7th Nov 2025 | **UNIT IV:** Introduction and properties of Waterproofing compounds like admixtures, additives, acrylics, sealant-poly sulphide, adhesives and glues used in building industry | | |
| 15 | 10th to 14th Nov 2025 | **UNIT IV:**Environmental Impact Evaluation of manufacture and use of Waterproofing Materials | | |
| 16 | 17thto 21nd Nov 2025 | **Final Submission of all assignment** | **Assignment 1 - 4** | **75 MM** |

## TEACHING METHODOLOGY

- **Testing of previous Knowledge: Previous testing will be done on the basis topics covered like metals, iron, bronze & steel, its protective covering, ceramics s & protective paints, there previous topics will help them in better understanding of the current topics. It seeks to harness that understanding and amalgamate it with the deliverables of the current semester. Questionnaire session will be taken in the class.**
- **Teaching Aids: Focus on lecture-based learning & learning through site visits, case examples. Practical as well theoretical aspects will be clarified by submission of reports.**
- **Format: Lecture based learning**
- **Assignments Details:**
  a) Assignments
  b) Case Studies
  c) Site visits
  d) Market Survey

e) Presentation by students on respective topics

LEARNING OUTCOME

- Lecture based Learning by Case studies, Site visits and effective utilization of class hours.
- Developing the ability to recognize, properties, usage, applications in building industry.
- Developing the ability to use the appropriate building material which is does not harm environment & ecology.

SUGGESTED BOOKS/READINGS:

1. *Soni Kumar Saurabh, Building Materials and Construction, S Kataria & Sons*
2. *Duggal S K, Building Materials (third revised edition), New Age International(P) Limited Publishers, 2008*
3. *Kumar, S K, "Building Construction", 19th Ed., Standard Publishers Distributors, 2001*
4. *Meritt S Fredrick, Building Design and Construction handbook, MCGraw Hill 2000*
5. *Allen E, and Jano J., "Fundamentals of Building Construction Materials and Methods" Wiley 2000.*
6. *Punamia BC (1993) Building Construction, Laxmi Publications (P) Ltd, New Delhi.*
7. *Chudley, R (1988) Building Construction Handbook. Butterworth Heinemann, Oxford*

Prepared by: Prof. Alpna Rohatgi. Signature

Submitted on: 17:07:2025

Director: Prof. Bijay Dash 17/07/2025

# MBS COLLEGE

Sector-9, Dwarka, New Delhi

Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2025-26

| | |
|---|---|
| YEAR:3rd Yr. | SEMESTER: SEM 5 (ODD SEMESTER) |
| SUBJECT CODE:AP- 329 | SUBJECT TITLE: QUANTITY & ESTIMATION |
| SUBJECT TYPE: THEORY | CREDITS: 02 |
| INTERNAL ASSESSMENT: **40** Marks | EXTERNAL ASSESSMENT(UE): **60** Marks |

**OBJECTIVES**

General Objective – The course is intended to provide the basic concepts of preparing quantities, estimates measurement of building works.

Specific Objectives-

- **Understand Key Concepts:** To teach the fundamental principles and terminology used in quantity and estimation.
- **Calculate Construction Quantities: To** Teach methods for accurately determining the quantities of materials and labor required for construction projects.
- **Prepare Accurate Estimates:** To prepare detailed cost estimates for a small building based on the calculated quantities.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | WEIGHTAGE (Marks) |
|---|---|---|---|---|
| 1 | 4th to 8th Aug 2025 | Introduction and Familiarization with the Subject. | Types of Area calculations, Handwritten assignment | 10% |
| 2 | 11th to 14th Aug 2025 | Types of Area calculations taken for Estimation: Plot Area, Plinth Area, Built up area, Covered Area, Carpet area, Circulation area. | | |
| 3 | 18th to 22th Aug 2025 | Introduction on Types of Estimates to be prepared:<br>Preliminary Estimates-Plinth Area rates and cost indices<br>Introduction on Detailed Estimates.<br>Quick Introduction on Bill of Quantities, Specification, Estimation, Contract Management. | | |
| 4 | 25th to 28th Aug 2025 | Detailed Estimates-Modes of measurement, taking off quantities (from drawings manually and through BIM software),Bill of Quantities(BOQ)and Bill of Materials (BOM). Sample BOQs. | Calculation of Brickwork and plastering quantities for your classroom wall with deductions for doors, windows and ventilators | |

16/7/25

| | | | | |
|---|---|---|---|---|
| 15 | 10th to 14th Nov 2025 | Doubt clearing session | | |
| 16 | 17th to 21st Nov 2025 | Doubt clearing session | | |

## LEARNING OUTCOMES

- Students will learn how the building projects are executed from paper to reality.
- Students learn to take out quantities from the drawings for preliminary and detailed estimates.
- Students learn to analyse rates and prepare cost estimates for a small eventually larger building projects.
- Ability to use the CPWD Schedule of rates, market rates of various building materials and Labour costs
- Students learn finding/calculating the Rate per sqm. of a small building.

## SUGGESTEDBOOKS/READINGS:

1. B.N. Dutta Estimating and Costing
2. Rangwala Estimating and Costing
3. CPWD Delhi Schedule of Rates 2021

**Prepared by: Prof. Alpna Rohatgi.** **Signature**

**Submitted on: 18:07:2025**

**Director: Prof. Bijay Dash** 18/07/2025

# MBS SCHOOL OF PLANNING AND ARCHITECTURE

## TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| **Year : 3rd ( III )** | **Semester : 5th ( V )** |
| **Subject Code : AP - 349** | **Subject : Landscape Architecture – I** |
| **Subject Type : Elective** | **Credits : 3** |

Course Objectives

- To introduce the role of landscape elements in architectural design.
- To study the impact of landscape elements on the environment.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 | **Introduction** to course, outline, need and relevance to the discipline of architecture | |
| Week 2 | **Basic elements of landscape design** : continuity of built and unbuilt, nature as landscape | |
| **Week 3** | **Principles of Landscape Design** : Role of point line and curve | **Report** : Seminal works of any famous national or international landscape architect / firm |
| Week 4 | **Plants and Design** : Need, relevance, nomenclature and classification, types, vegetation in India, characteristics, use and suitability in landscape architecture | |
| **Week 5** | **Plants and Design** : Need, relevance, nomenclature and classification, types, vegetation in India, characteristics, use and suitability in landscape architecture. | **Documentation** : Any three types of trees, shrubs and ground covers available in Delhi-NCR |
| Week 6 | **Elements of Landscape Design** : Land, understanding contours and slopes | Calculating slopes and grading of contours on a given site |
| **Week 7** | **Elements of Landscape Design** : Role of Water | **Report** : Role of water in landscape design |
| Week 8 | **Elements of Landscape Design** : Role of Vegetation | |

| | | |
|---|---|---|
| Week 9 | **Services in a landscape** : Electrical, plumbing, sewage and water supply | |
| **Week 10** | **Mid Term Examination** | |
| Week 11 | **Landscape Design Problem** Introduction and Concept Development | (100 marks) |
| Week 12 | Design development | |
| Week 13 | Design Development continued | (200 marks) |
| Week 14 | Design Development continued | |
| **Week 15** | **Pre-final Submission** | **(200 marks)** |
| **Week 16** | **Final Submission** | **(300 marks)** |

**Suggested Books/Readings:**

1. **Design With Nature** *Ian L. McHarg*
2. **Trees of Delhi - A Field Guide** *Pradip Krishen*
3. **Landscape Graphics - Plan, Section and Perspective Drawing of Landscape Spaces** *Grant R. Reid*
4. **Foundations Of Landscape Architecture** *Norman K. Booth*
5. **Landscape Designing and Ornamental Plants** *H. S. Grewal & Parminder Singh*

**DATE : 22-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

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Sector-9, P.S.P. Area, Dwarka, New Delhi - 110077

# MBS SCHOOL OF PLANNING AND ARCHITECTURE

## TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| **Year : 3rd ( III )** | **Semester : 5th ( V )** |
| **Subject Code : AP - 353** | **Subject : Interior Design - I** |
| **Subject Type : Elective** | **Credits : 3** |

**Course Objectives-**

- To introduce the vocabulary of interior designing.
- To familiarize the students with the overview of interior and furniture design and design movements through history.
- To inform the various components of interior space and treatments and finishes for the same.
- To familiarize the students with various components of interior design like lighting, landscaping and furniture.
- Interior of residence and small commercial spaces.

| WEEK | BRIEF SYNOPSIS OF LECTURE / STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 | **Lecture : Introduction to Vocabulary of Interior design** - Definition and process of Interior design. **Principles of Interior Design.** Foreground and Background in interior design | Assignment 1 |
| Week 2 | Introduction of design of **Interior Spaces** as related to typology and function, theme and concepts | |
| Week 3 | Finalisation of **Case study of Interior Design** of large and mono-functional spaces e.g. Airport, Hotel, Hospital, and Large scale corporate office. (Interior of reception and waiting Areas) | |
| Week 4 | **Overview of Interior and furniture design** in the western context through the ages relating to historical context, design movements and ideas | Assignment 2 |
| Week 5 | **Overview of folk arts and crafts of India** with reference to their role in Interior decoration | |
| Week 6 | **GROUP DISCUSSION** | |
| Week 7 | **Lecture on: Components of Interior Design** Interior Treatment and Finishes. | Assignment 3 |
| Week 8 | **Treatment of components** – floors, ceilings, partitions, windows, accessories for large projects. | |

| | | |
|---|---|---|
| Week 9 | **GROUP DISCUSSION** | |
| Week 10 | Mid Term Examination | |
| Week 11 | **Components of Interior space : Landscaping** Interior landscaping elements like water, rocks, plants, flowers, fountains, artifacts, paving and use of these elements in design. Their physical properties and effects on spaces. **Components of Interior space : Lighting** Interior lighting and their effects and suitability in different context (Large Scale Projects) | |
| Week 12 | | |
| Week 13 | **Components of Interior space : Furniture** Furniture Design as related to human comfort and function, materials and methods of construction, innovations and design ideas. Group work for – Office furniture, Children's furniture, and display systems. (Large Scale Project) | Assignment 4 |
| Week 14 | **Lecture : Mood Board** | |
| Week 15 | **Lecture : Interiors of Large and Multi functional spaces -** Airport, Corporate office, Hotel and Hospital. | |
| Week 16 | **FINAL PORTFOLIO SUBMISSION** | |

**Suggested Books/Readings:**

1. **Interior Design Handbook of Professional Practice** *Cindy Coleman*
2. **Interior Color by Design** *Malestrom*
3. **How To Select Lighting Option And Match Your Decorating Styles**
4. **Dream Homes - 100 Inspirational Interiors** *Andreas Einsiedel and Johanna Thornycroft*
5. **Homebody: A Guide to Creating Spaces You Never Want to Leave** *Joanna Gaines*
6. **Styled: Secrets for arranging rooms, from tabletops to bookshelves** *Emily Henderson*
7. **Everything: A Maximalist Style Guide** *Abigail Ahern*
8. **Space Planning for Commercial and Residential Interiors** *McGraw-Hill*

**DATE: 23-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

# MBS COLLEGE

Sector-9,Dwarka, New Delhi
Affiliated College of GGSIPU, Approved by COA & AICTE

## B.ARCH.PROGRAM;TEACHINGSCHEDULE:FORAY2025-26

| | |
|---|---|
| YEAR : 4th Yr. | SEMESTER: SEM 7 (ODD SEMESTER) |
| SUBJECT CODE: AP-401 | SUBJECT TITLE: ARCHITECTURAL DESIGN VII |
| SUBJECT TYPE: STUDIO | CREDITS:12 |
| INTERNAL ASSESSMENT: 2000Marks | EXTERNAL ASSESSMENT(UE):1000 Marks |

**General Objective:**

- To understand housing requirements, housing as public service facility and its commercial component.

**Specific Objectives:**

- Study the character of settlements via documentation.
- Explore cultural and social implications of housing typologies.
- Design multifamily housing on urban sites considering norms and density.
- Analyse dwelling unit norms, byelaws, and population metrics.

| Week | Dates | Lecture / Studio Activity | Submission / Assignment | Weightage (Marks) |
|---|---|---|---|---|
| 1 | 4–8 Aug 2025 | Lecture 1: Introduction to Housing Studio — Shelter, Housing, Socio-Cultural Diversification | Literature Study | — |
| 2 | 11–14 Aug 2025 | Site Visit and Discussion | Identification of Internet and Live Case Studies | 5% (100) |
| 3 | 18–22 Aug 2025 | Lecture 2: Housing Typologies, Bye-laws, Space Standards | Literature Study Submission | — |
| 4 | 25–28 Aug 2025 | Discussion on Case Studies | Live Case Study Submission | 10% (200) |
| 5 | 1–5 Sept 2025 | Lecture 3: Site Planning and Area Program | Site Analysis Presentation | 10% (200) |
| 6 | 8–12 Sept 2025 | Zoning / Concept Finalization | Area Statement | — |
| 7 | 15–19 Sept 2025 | Major Submission 1: Unit Plan, Cluster Plan, Site Plan with Area Charting | Draft Submission | 10% (200) |
| 8 | 22–26 Sept 2025 | Mid-Term Examination | — | — |
| 9 | 29 Sept – 3 Oct 2025 | Design Development I: Cluster Layout, Elevations, Open Space, Parking Calculations | Major Submission 2 — 2/3/4 BR + EWS Typologies | 20% (400) |
| 10–11 | 6–17 Oct 2025 | Design Discussions and Critical Analysis | — | — |
| 12 | 20–24 Oct 2025 | Annual Sports Meet (Tentative) | — | — |
| 13 | 27–31 Oct 2025 | Final Drafting of Cluster, Site Plans, Elevations | Design Review & Analysis | — |
| 14 | 3–7 Nov 2025 | Design Development II: Prefinal + Model | Major Submission 3 | 20% (400) |
| 15 | 10–14 Nov 2025 | Discussions & Doubt Clearing | — | — |
| 16 | 17–21 Nov 2025 | Final Submission & Jury | Final Jury Submission | 25% (500) |

Total:2000 MM

22-9-25

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**Learning Outcomes**

- Different housing typologies and need of housing / current housing trends in India.
- Construction and structural technologies relevant to residential sector in urban sites including sustainable practices.
- Applicable byelaws and National Building Code provisions applicable to housing requirements.
- Site physiography: land characteristics, topography, soil, drainage. Hydrology – surface and ground water. Vegetation – plant life cycle and ecology.
- Parking, services, basement entry/exit and infrastructure-related learnings.

**SUGGESTED BOOKS:**

1. Time Saver Standards and Neufert
2. NBC (for fire safety norms regarding staircase, exits, Lifts, Washrooms etc.)
3. Building Byelaws

**Suggested Books / References:**

1. Dechiara, J., Panero, J. and Zelnik, M. (2017). *Time Saver Standards for Housing and Residential Development*. McGraw-Hill Education – Second Edition.
2. Brooks, R.G. (1988). *Site Planning: Environment, Process and Development*. Michigan.
3. Clapham, D., Clark, W.A.V. and Gibbs, K. (2012). *The Sage Handbook of Housing Studies*. London: Sage Publications.
4. Correa, C. (2010). *A Place in the Shade: The New Landscape and Other Essays*. New Delhi: Penguin Books.
5. Ferre, A. and Tihamer, S.H. (2010). *Total Housing: Alternatives to Urban Sprawl*. New York: ACTAR Publishers.
6. Greater London Council. (1978). *An Introduction to Housing Layout: A GLC Study*. London.
7. Lee, K.E. (1984). *Time Saver Standards for Site Planning*. McGraw-Hill Ryerson.
8. Levitt, D. and Levitt, B. (2010). *The Housing Design Handbook*. New York: Routledge.
9. Root, B.J. (1985). *Fundamentals of Landscaping and Site Planning*. AVI Publications.
10. Untermann, R. and Small, R. (1977). *Site Planning for Cluster Housing*. Van Nostrand Reinhold.

**Prepared by: Prof. Alpna Rohatgi.**

**Signature** 22-7-25

**Submitted on: 15:07:2025**

**Director: Prof. Bijay Dash** 22/07/2025

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# MBS SCHOOL OF PLANNING AND ARCHITECTURE

Sector-9, Dwarka, New Delhi
Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY 2025-26

| | |
|---|---|
| YEAR: **4th Year** | SEMESTER: **SEM 7 (ODD SEMESTER)** |
| SUBJECT CODE: **AP- 403** | SUBJECT TITLE: **BUILDING CONSTRUCTION VII** |
| SUBJECT TYPE: **STUDIO** | CREDITS: **05** |
| INTERNAL ASSESSMENT: **50 Marks** | EXTERNAL ASSESSMENT (UE): **50 Marks** |

**OBJECTIVES**

**General Objective – (As per GGSIPU Syllabus)**

- Learning about alternate systems and new materials & techniques in building construction
- Understanding and learning different foundation systems, new flooring system, roofing system and walls-partition systems
- Different modern techniques in the field of construction and their applications in the industry

**INTRODUCTION**

The Construction industry today faces growing demands for sustainability, affordability and adaptability in response to environmental challenges, resource limitations and social needs.

To develop a comprehensive understanding of alternate building system, material and technique that go beyond conventional RCC and brick-mortar system which emphasizes the use of locally available, eco-friendly, cost-effective and innovative solutions.

By exploring live examples and hands-on applications students will be asked to study the integration of design with construction technologies and alternate system which can be made more responsive to both urban and rural contexts encouraging critical thinking and design innovation.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | WEIGHTAGE (Marks) |
|---|---|---|---|---|
| 1 | | **Introduction to Syllabus**<br>**Introduction to Alternate Systems**<br>• Importance and materials application.<br>• To understand different materials<br>Eg.: CSEB, Bamboo, Fly Ash, GFRG, SMB, etc | **Assignment 1- (Group Work)**<br>Mapping of sustainable/ cost effective materials | 5% |
| 2 | | **Introduction to Foundation Systems I**<br>• To understand different foundation system, Eg.: Bamboo reinforced,<br>***Case Studies:***<br>1. Ar. Laurie Baker Project<br>2. Ar. Geoffrey Bawa Project<br>3. Habitat for Humanity India, Uttarakhand | **Assignment 2- (Group Work)**<br>Comparative analysis RCC and Alternate foundation technique. | 5% |
| 3 | | **Introduction to Foundation Systems II**<br>• To understand different foundation system, Eg.: Rammed Earth<br>• To understand system of low cast vs high technology construction.<br>***Site Visit:***<br>1. Development Alternative Building, Tughlaqabad, Delhi | ***Assignment Cont.***<br>working on cost performance matrix<br>+<br>Case Study Report Presentation<br>Site Visit Report | 5% |

| | | | | |
|---|---|---|---|---|
| 4 | | **Introduction to Floor System I**<br>• To understand different flooring system. Eg.: Bamboo Flooring, Madras Terrace<br>***Case Studies:***<br>1. Delhi Haat INA, Delhi<br>2. Indian Habitat Centre, Delhi<br>3. Ar. Neelam Manjunath's Bamboo Flooring | **Assignment 3- (Group Work)**<br>Market Survey | 5% |
| 5 | | **Introduction to Floor System II**<br>• To understand different flooring system. Eg.: Filler Slab, Ferrocement | Case Study Report Presentation | |
| 6 | | **Introduction to Walling System I**<br>• To understand different walling system. Eg. Rat Trap Bond, Compressed Stabilized Earth Blocks<br>***Case Studies:***<br>1. Auroville Earth Institute, Tamilnadu<br>2. CEPT University, Ahmedabad<br>3. DMRC & CPWD Projects | **Assignment 4- (Group Work)**<br>Market Survey | |
| 7 | | **Introduction to Walling System II**<br>• To understand different walling system. Eg. Hollow Block, Concrete Block, Fly ash Brick<br>***Site Visit:***<br>1. TERI Gual Pahari Retreat, Gurugram | Case Study Report Presentation<br>+<br>Site Visit Report | 5% |
| 8 | | MID-TERM EXAMINATION | | |
| 9 | | **Introduction to Partition System I**<br>• To understand different partition system. Eg. Mat Board, Fabric, Panel etc<br>***Case Studies:***<br>1. Ar. Yatin Pandya Projects<br>2. Ar. Shirish Beri Projects<br>3. IIT Madras, Chennai | **Assignment 5- (Group Work)**<br>Market Survey | 5% |
| 10 | | **Introduction to Partition System II**<br>• To understand different partition system. Eg. Dry Wall | Case Study Report Presentation<br>+<br>Site Visit Report | 5% |
| 11 | | **Introduction to Roofing System I**<br>• To understand different roofing system. Eg. Vaulted roof, tiled,<br>***Case Studies:***<br>1. Gandhi Ashram, Ahmedabad<br>2. Centre for Development Studies, Thiruvananthapuram<br>3. Ar. Chitra Vishwanath Projects | **Assignment 6- (Group Work)**<br>Market Survey | 5% |
| 12 | | **Introduction to Roofing System II**<br>• To understand different roofing system. Eg. Bamboo roof, flat roof<br>***Site Visit:***<br>1. Indira Paryavaran Bhawan, Delhi | Case Study Report Presentation<br>+<br>Site Visit Report | 5% |
| 13. | | **Cost Effective Construction Technique**<br>Students have to choose one small residence and redesign with the alternate materials and technique (choice is preferable)<br>Details Including Superstructure & Sub Structure | **Assignment 7- (Individual Work)**<br>Plan, Sectional Elevation, Structural and Construction Details | 35% |

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| 14. | | **Composite Construction**<br>Design a recreational space with using Ferrocement/ Mivan construction technique | **Assignment 8- (Individual Work)**<br>Plan, Sectional Elevation, Structural and Construction Details | 15% |
| 15 | | **Pre Final Submission and Assessment**<br>• Report + Sheets + Model | Group Work<br>+<br>Individual Work | 95% (Academic Work)<br>+ 05% (Attendance) |
| 16 | | **Final Submission and Assessment**<br>• Report + Sheets + Model | Group Work<br>+<br>Individual Work | 95% (Academic Work)<br>+ 05% (Attendance) |

**LEARNING OUTCOMES**

- Identify and categories alternate building materials and techniques
- Analyze foundation, floor, wall and roofing system using sustainable and low casting method
- Apply innovative technique in designing components with alternate materials.
- Critically assess live case studies done by master architects and recommend alternative construction strategies.
- Synthesize knowledge through model-making and market survey.

**SUGGESTED BOOKS/READINGS:**

1. Soni Kumar Saurabh, Building Materials and Construction, S Kataria & Sons
2. Duggal S K, Building Materials (third revised edition), New Age International (P) Limited Publishers, 2008
3. Kumar, S K, "Building Construction", 19th Ed., Standard Publishers Distributors, 2001
4. Meritt S Fredrick, Building Design and Construction handbook, MCGraw Hill 2000
5. Punmia BC (1993) Building Construction, Laxmi Publications (P) Ltd, New Delhi.
6. Chudley, R (1988) Building Construction Handbook. Butterworth Heinemann, Oxford
7. Sundaravadivelu.R. manual on Low Cost Construction Technology
8. Ar. Neelam Manjunath, bamboo Architecture: Green Building Design

**FACULTY DETAILS:**

| | SECTION A | SECTION B | SECTION C |
|---|---|---|---|
| **Subject Faculty Name** | | | |
| **Date and Signature** | | | |

**Prepared by:** Ar. Ravi Prakash Mishra

**Prepared on:** 01. 07. 2025

**Director:** Prof. Bijay Dash

**Dean:** Prof. Praveen Arora

01-07-2025

Signature.....

21-08-2025

# MBS COLLEGE

**Sector-9, Dwarka, New Delhi**

Affiliated College of GGSIPU, Approved by COA & AICTE

## B. ARCH. PROGRAM ; TEACHING SCHEDULE : FOR AY 2025-25

| | |
|---|---|
| YEAR | SEMESTER:SEM 7 (ODD SEMESTER) |
| SUBJECT CODE:AP-405 | SUBJECT TITLE:SEMINAR |
| SUBJECT TYPE: STUDIO | CREDITS:06 |
| INTERNAL ASSESSMENT: 50 Marks | EXTERNAL ASSESSMENT (UE): 50 Marks |

OBJECTIVES

- **General Objectives:** The students will learn how to conduct a study on a theme or issue in architecture and compile it as a research paper and make a formal presentation of the study and findings.
- **Specific Objectives:**

To equip the students with the art of paper presentations and preparation of report.

| WEEK | DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | WEIGHTAGE (Marks) |
|---|---|---|---|---|
| 1 | 4th to 8th Aug 2025 | Lecture on Introduction to Arch. Research i.e. Seminar vs Dissertation<br>Introduction to Elements of Research process,<br>Guidelines for the mentors:<br>• Finding a topic followed by review of Existing Research papers<br>• Writing Introduction: Aim, objectives, scope, identifying key research question and Hypotheses | Selection of Three topics of Architectural significance/interest, synopsis submission by next week | |
| 2 | 11th to 14th Aug 2025 | **Discussion on submitted topics of Architectural significance/ Topic of Interest.**<br>**Guidance on writing a synopsis** | Review of Synopsis & Finalizing of topics | 5 |
| 3 | 18th to 22th Aug 2025 | Lecture 2 :Review of a sample Research paper.<br>Lecture on developing a Research Question/statement) | research paper review | 5 |
| 4 | 25th to 28th Aug 2025 | • Data collection:<br>• Guidance on how to do Literature review<br>• *(There could be several sub sections, each clearly labeled, Information should be arranged in order of importance with the most important information coming first, use of graphics, images, figures, graphs, tables etc)* | SUBMISSION: Live Case Studies | |
| 5 | 1nd to 5th Sept 2025 | Discussion on Literature review<br>To be told for selecting the Case studies | | |
| 6 | 8th to 12th Sept 2025 | • Presentation and Submission of Literature Review<br>• Finalize selection of Case studies with the Guides. | Submission:<br>• Literature Review | 10 |

| | | | | |
|---|---|---|---|---|
| 7 | 15th to 19th Sept 2025 | case studies/surveys/interviews etc. | | |
| 8 | 22rd to 26th Sept 2025 | **MID-TERM EXAMINATION: 8th week** | | |
| 9 | 29th Sept to 3rd Oct 2025 | Discussion on Case studies/surveys/questionnaires etc. | | |
| **10** | **6th to 10th Oct 2025** | **Presentation of Case Studies and its Analysis.** | Major Submission: Case study/survey/findings | 5 |
| 11 | 13th to 17th Oct 2025 | Presentation of Case Studies and its Analysis. | | |
| 12 | 20st to 24th Oct 2025 | **Annual Sports Meet (tentative)** | | |
| 13 | 27th Oct to 31st Oct 2025 | **Guidance on Referencing style & Abstract writing** | | |
| 14 | 3rdto 7th Nov 2025 | *Interim Review of Draft Research Paper* | Major Submission 3 | 10 |
| 15 | 10th to 14th Nov 2025 | Guidance on Art of paper presentation (emphasis on presentation of key points) | | |
| 16 | 17thto 21nd Nov 2025 | *Final review of presentation/Research paper* | FINAL SUBMISSION AND JURY | 15 |

LEARNING OUTCOME

- Ability to source information on a chosen topic.
- Collate, analyse, participate in strategic discussions with in the team and with the faculty, synthesize research outcomes in well structured research paper.
- Learn to demonstrate effective oral presentation in a hall of audience
- Ability to effectively participate in seminars as a member of the audience.

**Prepared by: Prof. Alpna Rohatgi.** **Signature**

**Submitted on: 17:07:2025**

**Director: Prof. Bijay Dash** 17/07/2025

MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA
Affiliated to GGSIPU, Approved By COA & AICTE

**B. ARCH**
**TEACHING SCHEDULE (2025-26)**

| | |
|---|---|
| **Year: 4th year** | **Semester : Sem 7** |
| **Subject Code: AP-421** | **Subject: THEORY OF STRUCTURE VII** |
| **Subject Type: Theory** | **Credits: 02** |

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 (UNIT 01) | **Pre stressed concrete**-post tensioning and pre -tensioning of simply supported beams,**different theories in pre stress concrete**,strength based pre-stressing,Load based pre-stressing,losses in pre-stress concrete.**pre fabrication and industrial structures**:pre stressed concrete | Presentation on comparison between traditional and modern day pre- stress structures |
| Week 2 | **Difference between PSC and RCC**,Materials- Grades of steel,Grades of concrete used in PSC, | |
| Week 3 | **Principles of pre stressing**,pre tensioning and post tensioning | |
| Week 4 | Axial and eccentric pre stressing, **Modern Day use of PSC** in buildings, bridges, flyovers and metro construction. | **(ASSIGNMENT 01)** |
| Week 5 (UNIT 02) | **Prefabrication in RCC**, Merits and demerits of pre fab construction compared to in situ construction | Presentation on Modern Day use of pre fab construction |
| Week 6 | Methods of Prefab construction **Modern Day use in Prefab** housing and other fields. | **(ASSIGNMENT 02)** |
| Week 7 (UNIT 03) | **Folded plates:** General understanding of folded plates, | |
| Week 8 | Different shapes and with examples of Modern day use, | |
| Week 9 | **Shells:** General understanding of shell behavior, shell terminology | |
| Week 10 | Mid Term Examination | |
| Week 11 | **Historical perspective** thick and thin shell ,Membrane stresses in thin shells, | Presentation on Modern shapes of structures. |
| Week 12 | **Types of shells**:Cylindrical ,conical,spherical shells,RCC and steel domes,hyperbolic paraboloid shells, modern day use. | **(ASSIGNMENT 03)** |
| Week 13 (UNIT 04) | **Large span system :**characteristics of large span system | |

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## B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY 2025-26

| | |
|---|---|
| YEAR :4th Yr. | SEMESTER:SEM 7 (ODD SEMESTER) |
| SUBJECT CODE:AP-423 | SUBJECT TITLE:TOWN PLANNING I |
| SUBJECT TYPE:THEORY | CREDITS:02 |
| INTERNAL ASSESSMENT: 25 Marks | EXTERNAL ASSESSMENT (UE): 75 Marks |

**OBJECTIVES**

**General Objective – (As per GGSIPU Syllabus)**

- To have an overview of the vocabulary of Human settlements.
- To understand the various elements of Human Settlements and the classification of Human settlements.
- To make students aware of the problems of cities and how to address the various issues.

**Specific Objectives -**

UNIT-1: To understand the elements of human settlements & their classification.
UNIT-2: To understand the typology of human settlements and factors affecting their growth or decay.
UNIT-3: To become aware of the work done by eminent planners and their concepts.
UNIT-4. To understand the concept of regional planning and to be able to identify the causes of the planning problems common in urban areas.

| Week | Dates | Lecture / Studio Activity | Submission / Assignment | Weightage (Marks) |
|---|---|---|---|---|
| 1 | 4–8 Aug 2025 | Introduction to the syllabus.<br>Terminology in townplanning.<br>A brief history of town planning, its originand growth. | | |
| 2 | 11–14 Aug 2025 | **UNIT-1:** Elements of Human Settlements – Human beings & settlements – nature, shells & network – their functions & linkages | Assignment – 1<br>Elements of Human Settlements | 10% |
| 3 | 18–22 Aug 2025 | **UNIT-1:** Anatomy & Classification of Human Settlements: Locational, Resource-based, population size & Occupational structure. | | |
| 4 | 25–28 Aug 2025 | **UNIT-2:**Structure & form of human settlements-Linear, Non- linear & circular, combinations | | |
| 5 | 1–5 Sept 2025 | **UNIT-2 :**Reasons for development of Different forms of Human Settlements<br>Factors influencing the growth & decay of human settlements. | Assignment – 2<br>Types of Form & Factors of Decay and Growth | 10% |
| 6 | 8–12 Sept 2025 | **UNIT 1 & UNIT 2**<br>REVISION & DOUBT CLEARING SESSION | | |
| 7 | 15–19 Sept 2025 | **UNIT-3:** PLANNING CONCEPTS and their Relevance to Indian Planning Practice | | |
| 8 | 22–26 Sept 2025 | Mid-Term Examination | — | 20% |
| 9 | 29 Sept – 3 Oct 2025 | **UNIT-3:**Ebenezer Howard – Garden city concepts & contents<br>Patrick Geddes – Conservative Surgery-Case study | | |
| 10 | 6–10 Oct 2025 | Annual Sports Meet (Tentative) | | |
| 11 | 13–17 Oct 2025 | **UNIT-3:**C.A. Perry – Neighborhood Concept<br>Le Corbusier – Concept & case studies | Assignment – 3<br>Planning Concept with Examples | 20% |

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|---|---|---|---|---|
| 12 | 20–24 Oct 2025 | **UNIT-4: Planning Problems-** Identification of Planning Problems wrt different cities | | |
| 13 | 27–31 Oct 2025 | **UNIT–4:**Planning Problems- land-use distribution & change, communication system, | Assignment – 3 Planning Problems with Examples | 10 |
| 14 | 3–7 Nov 2025 | **UNIT- 4:**Planning Problems- overcrowding, slums, sporadic growth & conurbation. | | |
| 15 | 10–14 Nov 2025 | **UNIT- 4:**Concept of regional planning, Types of regions, locational factors of settlements etc. | | 10 |
| 16 | 17–21 Nov 2025 | MOCK TEST- PAPER PRACTICE/Marks Compilation | | 20% |

## LEARNING OUTCOMES

- Student will be cognizant of the various settlements and their functions.
- Student will be apprised of the structure of settlements and various pull and push factors which contribute to their growth and decay.
- Student will be informed of the various planning concepts of the renowned urban planners and the work done by them.
- Student will be able to identify the various problems in the urban areas and their root causes. They will also be acquainted with the concept of regional planning.

## SUGGESTED BOOKS/READINGS:

1. Fundamentals of Town Planning, G. K. Hiraskar
2. Bandopadhyay Abir, The Text Book of Town Planning, Books and Allied (P) Ltd. Kolkata, 2000.
3. Gallion Arthur B., Eisnew S., The Urban Pattern: City Planning and Design, CBS Pub and Distributors, Delhi, 1984.
4. Modak &Ambedkar, Town and Country Planning & Housing, Orient Longman Ltd 1971.

**Prepared by: Prof. Alpna Rohatgi.** **Signature**

**Submitted on: 21:07:2025**

**Director: Prof. Bijay Dash** 21-07-2025

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Sector-9, P.S.P. Area, Dwarka, New Delhi - 110077

## MBS SCHOOL OF PLANNING AND ARCHITECTURE

### TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| **Year : 4th ( IV )** | **Semester : 7th ( VII )** |
| **Subject Code : AP - 453** | **Subject : Advance Architectural Theories** |
| **Subject Type : Elective** | **Credits : 03** |

**Course Objectives-**

- The course will focus on creating a clear understanding between Theory and practice.
- To explore disciplinary and discursive exchanges between architecture and various other disciplines of knowledge.

**Testing of previous Knowledge**

Students are expected to have basic knowledge of terminologies used to explain the characteristics of a built heritage and basic knowledge of various architectural styles.

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| Week 1 | Introduction to syllabus, Lecture on Architecture as Liberal Art I- Relation to Art | Assignment<br>**Part-I** Select an allied discipline and collect theory (essays by various theorists, articles, news) etc. explaining the influence of architecture on it and the influence of the selected discipline on architecture. (Group Work)<br>**Class work-** Discuss the impact of society and culture on architecture (by quoting famous examples). |
| Week 2 | **Lecture** - Architecture as liberal art-II The impact of society and culture on Architecture. (Framing examples from stone age to Globalization) | |
| Week 3 | Discussion on Organized data | |
| **Week 4** | **Presentation and Review** | 100 Marks |
| Week 5 | **Lecture** - Architecture as a knowledge system in Pre-Modern Times. | **Part-II** Case examples of buildings representing the relationship between the architecture and selected discipline along with the related theory.<br>**Sheet Work in Class-** Select one or more built heritage of pre-modern times and elaborate how architecture acted as a knowledge system in pre-modern times. |
| Week 6 | **Lecture** - Early Modernization of Architecture<br>**Discussion-** On raw data and guidance on presentation technique | |



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| | | |
|---|---|---|
| Week 7 | Discussion on Organized data | **Sheet Work in Class-** Select an Architectural theory like expressionism, critical regionalism, functionalism, structuralism etc. and prepare sheets explaining the work of key figures, cultural and social transformation, critiques etc |
| **Week 8** | **Presentation and Review** | 100 Marks |
| **Week 9** | **Presentation and Review Continue** | |
| Week 10 | Mid Term Examination | |
| Week 11 | **Lecture -** Collaboration between Architecture and Other Disciplines and Impact of other Disciplines in transforming Architecture. | **Part-III-** Collaborate with a student/professional of the selected field to deliver a project (which will be finalized during class based on the selected topics) |
| Week 12 | Discussion on raw data and guidance on presentation technique | |
| Week 13 | Discussion on organized data | |
| **Week 14** | **Review and Submission** | 100 Marks |
| **Week 15** | **Final Book Submission** | 200 Marks |
| **Week 16** | **Final Book Submission and Doubt clearing session** | 200 Marks |

**Suggested Books/Readings:**

1. **Seven Cities of Delhi** *A.K Jain*
2. **Vernacular Architecture** *Henry Glassie*
3. **The Dome Of India** *Aman Nath*
4. **Towards a New Architecture** *Le Corbusier*
5. **Colonial Modernities: Building, Dwelling and architecture in British India and Ceylon** *Peter Scriver and Vikramaditya Prakash*
6. **Complexity and Contradiction in Architecture** *Robert Venturi*
7. **Learning from Las Vegas** *Robert Venturi, Denise Scott Brown, and Steven Izenour*
8. **Architecture: Form, Space, and Order** *Francis D.K. Ching*
9. **The Poetics of Space** *Gaston Bachelard*

**DATE: 21-07-2025**

**Prepared by:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

21-08-2025

21-08-2025



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# MBS SCHOOL OF PLANNING AND ARCHITECTURE

## TEACHING SCHEDULE (Academic Session : 2025 - 2026)

| | |
|---|---|
| **Programme : B. Arch.** | **Programme Code : 016** |
| Year : 4th ( IV ) | **Semester : 7th ( VII )** |
| **Subject Code : AP - 455** | **Subject : Intelligent Buildings** |
| **Subject Type : Elective** | **Credits : 3** |

**Course Objectives-**

- To give a direction towards building automation systems.
- To establish the need and functional requirement of the building automation systems and implementation of artificial intelligence in the built environment for efficiency in building energy consumption patterns and enhancing security and safety systems.

| WEEK/ DATE | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION DETAILS WITH WEIGHTAGE |
|---|---|---|
| WEEK 1 | 1. **Introduction** to Advanced Building Technology, Introduction to Intelligent Building Systems & Areas of application of intelligent building systems in architecture.<br>2. Basics understanding and differences in a typical traditional building, sustainable building, self-sustaining building and intelligent building.<br>3. **Class Assignment** : Need for intelligent buildings in today's world.<br>Class Students will be divided in 13 groups for presentation work, each group will showcase the basic understanding of the given topic and compare it with traditional and contemporary examples.<br>COMPILATION OF THEIR WORK ON A2 SHEET SIZE. | |
| WEEK 2 | **Presentation** by **Group 1** - Advanced Security Systems. | **PRESENTATION 50 MARKS**<br><br>**SHEET COMPILATION 50 MARKS** |
| WEEK 3 | **Presentation** by **Group 2** - AR / VR | |
| WEEK 4 | **Presentation** by **Group 3** - Sensors And Actuators | |
| WEEK 5 | **Presentation** by **Group 4** - AI in Architecture | |
| WEEK 6 | **Presentation** by **Group 5** - Advance Fire Fighting Systems<br>**Group 6** - Modular Construction Technology | |
| WEEK 7 | **Presentation** by **Group 7** - Building Automation Systems for Maintenance of Buildings (BIM) | |

| | | |
|---|---|---|
| WEEK 8 | **Presentation** by **Group 8** - Robotics In Architecture & Construction<br>**Group 9** - Use Of GPS, Drones, GIS Mapping In Architecture (Advanced) | **PRESENTATION 50 MARKS** |
| WEEK 9 | **Presentation** by **Group 10** - HVAC (Advanced) **Group 11** - Kinetic Facades | **SHEET COMPILATION 50 MARKS** |
| WEEK 10 | **Mid Term Exam and Site Visit / Guest Lecture** | |
| WEEK 11 | **Presentation** by **Group 12** - Automatic Car Parking Systems<br>**Group 13** - 3D Printing and 3D Modelling | |
| WEEK 12 | **Introduction** lecture for : Exercise of incorporating building Automation on their last year Hospital Design individually. A2 SIZE. (HVAC, firefighting, sensors and security) | |
| WEEK 13 | **Discussion** on the same. | |
| WEEK 14 | **Submission**: Exercise of incorporating advanced building systems on their last year Hospital Design individually. | **150 MARKS** |
| WEEK 15 | | |
| WEEK 16 | **FINAL A2 SIZE PORTFOLIO SUBMISSION** | **250 MARKS** |

**Suggested Books/Readings:**

1. *Barry R* (1999) **Construction of Buildings**, East West Press Pvt. Ltd., New Delhi.
2. *Mckay WB* (1988) **Building Construction (Vol. I, II, III & IV)**, Orient Longman, London, 1988.
3. *Allen E* (1999) **Fundamentals of Building Construction: Materials and Methods**, John Wiley & Sons, New York.
4. *Punamia BC* (1993) **Building Construction**, Laxmi Publications (P) Ltd, New Delhi.
5. *Chudley R* (1988) **Building Construction Handbook,** Butterworth Heinemann, Oxford.

**DATE : 22-07-2025**

**Prepared By:**

| | | |
|---|---|---|
| **Ar. Divesh Wadhwa** | **Prof. Parveen Arora** | **Prof. Bijay Dash** |
| **Asst. Professor** | **Dean** | **Director** |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 2025-26 | SEMESTER: SEM - (EVEN/ODD SEMESTER) |
| SUBJECT CODE: AP- 102 | SUBJECT TITLE: ARCHITECTURAL DESIGN |
| SUBJECT TYPE: STUDIO | CREDITS: 6 |
| INTERNAL ASSESSMENT: 40 | EXTERNAL ASSESSMENT (UE): 60 |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 96 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

To learn designing Small building addessing all fundamental factors at an elementary level.

**COURSE OBJECTIVES (CO) SPECIFIC-**

**CO1:-** Recall residential typologies, housing standards, anthropometric data, universal accessibility guidelines, and basic climatic design principles relevant to small residential buildings.

**CO2:-** Explain functional relationships, zoning principles, circulation patterns, and climate-responsive strategies through literature review, case studies, and site analysis.

**CO3 :-** Apply learned standards, anthropometric data, climatic principles, materials, components, and services in the preparation of architectural drawings and layouts for a residential project.

**CO4:-** Analyse site conditions, climate, user requirements, and functional relationships to develop zoning, form, circulation, and planning alternatives.

**CO5:-** Evaluate residential design options and case studies based on functionality, climate responsiveness, accessibility, spatial efficiency, and contextual appropriateness.

**CO6:-** Create a comprehensive architectural design proposal for a single/double family house integrating concept, form, drawings, and visual representations.

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**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 (REMEMBER) | 1 | 1 | 1 | 2 | 1 | - |
| CO2 (UNDERSTAND) | 2 | 1 | 2 | 2 | - | - |
| CO3 (APPLY) | 3 | 3 | 1 | - | 2 | - |
| CO4 (ANALYSE) | 3 | 2 | 3 | 1 | - | - |
| CO5 (EVALUATE) | 2 | 2 | 2 | 1 | 1 | - |
| CO6 (CREATE) | 3 | 2 | 2 | 1 | 1 | 2 |

## WEEKLY SCHEDULE

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| WEEK 1 | Introduction to Residential typologies, Residential Design | Lecture, discussion, examples of houses, brainstorming | List of Residential spaces with domestic Activities (Progressive Marking) | CO1 | Acquainted with small-scale residential design |
| WEEK 2 | Human Domestic Activities, Space Needs & Anthropometry | Lecture, precedent study, short exercises | **A2** Introduction, Activity–space relationship sheets (10) | CO1 | Understanding spatial requirements |
| WEEK 3 (ANNUGOONJ) | Housing Standards, Universal Accessibility & Basic Planning Norms | Class discussion, standards review | **A2** Literature study submission (10) | CO1, CO2 | Awareness of standards & inclusivity |
| WEEK 4 | Introduction to basic components of a residence, Kitchen and Toilet Design | Lecture, case examples, drawing exercise | **A2** Kitchen layout drawings (10), **A2** Toilet layout & details (10) | CO3 | Application of standards & anthropometry, Functional & technical application |
| WEEK 5 | Bedroom Design: Layouts & Anthropometry | Lecture, case examples, drawing exercise | **A2** Bedroom layout & details (10) | CO3 | Application of standards & anthropometry |
| WEEK 6 | Case Study – Indian & Global | Case study presentations, discussions | **A2** Case studies (10) | CO2, CO5 | Understanding planning & design principles |

| | | | | | |
|---|---|---|---|---|---|
| WEEK 7 | Site Introduction, Context & Climatic Analysis | Site visit, Lecture, climate-responsive examples | Site analysis (10), PPT on Climate Responsive Residences (10) | CO2, CO4 | Contextual and environmental understanding |
| WEEK 8 | Concept Formulation & Design Idea, Form Development, Massing & Circulation | Lecture on Design Concept, Studio-based conceptualization, Class discussions on form transformations. | **A2** Concept and Form Development (10) | CO4, CO5, CO6 | Analytical design thinking |
| WEEK 9 | Functional Programming, Zoning & Concept Development | Lecture on Bubble diagram and Zoning, Studio exercises, bubble diagrams | Zoning and Bubble Diagram (10) | CO3, CO4 | Logical spatial organization |
| **WEEK 10 (MID TERM)** | **PRELIMINARY STAGE REVIEW** | **Internal Jury** | **All sheets till Zoning and Bubble Diagram (60)** | **CO1, CO2, CO3, CO4, CO5, CO6** | **Assessment of understanding & analysis** |
| WEEK 11 | Preliminary Floor Plans & Furniture Layout | Studio work, Class discussion | Butter Sheets Preliminary plans (Progressive Marking) | CO3, CO4, CO6 | Application of planning principles |
| WEEK 12 | Final Floor Plans & Furniture Layout | Studio work, Class discussion | **A2** Floor Plans with Furniture layout (10) | CO6 | Application of planning principles |
| WEEK 13 | Sections, Elevations & Built Form Expression | Studio work, drawing development | **A2** Elevations & Sections (10) | CO6 | Translating concept into built form |
| WEEK 14 | Site Plan | Lecture on Site Planning, Studio work, Class discussions | **A2** Site Plan (10) | CO6 | Holistic residential design |
| WEEK 15 | Visual Presentation – 3D Views, Model | Demonstration of Presentation techniques, pre-jury review | **A2** Views, Sheet Rendering, Model (10) | CO5, CO6 | Evaluation & design communication |
| **WEEK 16** | **FINAL STAGE REVIRE** | **FINAL INTERNAL JURY** | **PORTFOLIO SUBMISSION (100)** | **CO6** | **Complete design synthesis** |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **FINAL PORTFOLIO (SHEET)** | **40 MARKS** | **WEEK 16** |
| **PPT (GROUP WORK)** | | **WEEK 7** |
| **MODEL** | | **WEEK 16** |
| **INTERNAL JURY** | | **WEEK 10, 16** |
| **EXTERNAL JURY** | **60 MARKS** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. **Ching, F.D.K.; Architecture Form, Space and Order, Van Nostrand Reinhold Staff, New York, 1996**
2. **Rudofsky, Bernard; Architecture without Architects, University of New Mexico Press, New Mexico**
3. **Rasmussen, Steen Eiler; Experiencing Architecture, The MIT Press, Cambridge, Massachusetts, 1977**
4. **Watson, Donald / Crosbie,Michael J.; Time Savers Standards for Architectural Design, Mc Graw Hill, New York, 2005**
5. **Harris, Charles W. / Dines, Nicholas T.; Time Savers Standards for Landscape Architecture, Mc Graw Hill, USA, 1998**
6. **Gideon, Siegfried; Space, time & Architecture, Harvard University Press**
7. **Robert Powell, "Tropical Asian House", Select Books, 1999**


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name:-<br>Ar. Prachi Narang | HOD / Dean/ Deputy Director | Director:-<br>Prof. Bijay Dash |
| Signature Prachi | Signature P. Dhiman | Signature |
| Date 02/01/2026 | Date 05-01-2026 | Date 06-01-2026 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 2025-26 | SEMESTER: SEM - 2 |
| SUBJECT CODE: AP- 104 | SUBJECT TITLE: BUILDING CONSTRUCTION-II |
| SUBJECT TYPE: STUDIO | CREDITS: 6 |
| INTERNAL ASSESSMENT: 40 | EXTERNAL ASSESSMENT (UE): 60 |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 80 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)**

Learning Construction of a double storey Masonry Building with more than one habitable spaces.

**COURSE OBJECTIVES (CO) SPECIFIC-**

CO1 – Identify and list basic materials, components, terminology, and construction elements used in brick masonry superstructure, RCC/RB roofs, staircases, flooring systems, and wooden doors and windows.

CO2 – Explain the construction principles, functional requirements, and interrelationships of brickwork in superstructure, RCC/RB roofing and terracing, masonry staircases, flooring systems, and wooden joinery.

CO3 – Prepare and illustrate accurate construction drawings and sections for brick masonry superstructure built over RCC/RB systems, roofing and terracing, staircases, flooring, and wooden doors and windows using conventional construction techniques.

CO4 –Analyse and differentiate various construction details and material choices for roofing, terracing, staircases, flooring, and joinery, with respect to structural logic, climatic response, constructability, and functional performance.

CO5 – Assess and justify the selection of construction methods, materials, and detailing solutions for brickwork, roofing, staircases, flooring, and openings, considering durability, safety, sustainability, standards, and contextual suitability.

CO6 – Design and develop comprehensive construction drawings of a designed architectural space, integrating brick superstructure, RCC/RB roofing and terracing, masonry staircases, flooring systems, and wooden doors and windows, in compliance with codes, standards, and professional documentation practices.

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**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 (REMEMBER) | 1 | 3 | 1 | - | 1 | - |
| CO2 (UNDERSTAND) | 2 | 3 | 1 | 1 | 2 | - |
| CO3 (APPLY) | 3 | 3 | 2 | - | 2 | - |
| CO4 (ANALYSE) | 2 | 3 | 3 | - | 2 | - |
| CO5 (EVALUATE) | 2 | 3 | 3 | - | 3 | 1 |
| CO6 (CREATE) | 3 | 3 | 2 | 1 | 3 | 2 |

## WEEKLY SCHEDULE

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| WEEK 1 | Construction terminology Materials in superstructure | **Lecture Visual examples Discussion** | | CO1,CO2 | Familiarization with construction scope and vocabulary |
| WEEK 2 | Wooden Joints •-Types of joints,Applications in joinery | Lecture Visual examples Discussion | SHEET 1 – Wooden Joints (10) | CO1, CO2, CO3 | Identification and application of wooden joint details |
| WEEK 3 | **(CULTURAL FEST ANUGOONJ)** | | | | |
| WEEK 4 | Door Terminologies & Types | Lecture, Class discussions | REPORT 1 – Door Terminologies & Types (10) | CO1,CO2 | Understanding door systems and vocabulary |
| WEEK 5 | Door Construction Details | Lecture, Class discussions | SHEET 2 – Door Details (10) | CO2,CO3 | Application of construction principles in detailing |
| WEEK 6 | Wooden Door – Battened, Ledged and Braced Door | Studio exercise | SHEET 3 – Wooden Door and Joinery details (10) | CO3,CO4,CO5 | Analytical and technical detailing of doors |
| WEEK 7 | Window Terminologies & Types | Lecture Visual analysis | REPORT 2 – Window Terminologies & Types (10) | CO1,CO2 | Understanding window systems and performance |
| WEEK 8 | Window Construction Details | Studio exercise | SHEET 4 – Window Detail (10) | CO3,CO4,CO5 | Application of window construction knowledge |
| WEEK 9 | Staircase | Lecture, | REPORT 3 – | CO1,CO2 | Foundational |

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| | | | | | |
|---|---|---|---|---|---|
| | Terminologies & Types | Board sketches | Staircase Terminologies & Types (10) | | understanding of stair design |
| **WEEK 10** | **(MID TERM EXAMINATION)** | | | | |
| WEEK 11 | Staircase Construction | Studio exercise Sectional analysis | SHEET 5 – Staircase Detail (10) | CO3,CO4 | Technical application of staircase detailing |
| WEEK 12 | Brickwork in superstructure- External wall section | Lecture, Board sketches | SHEET 6 – External Wall Section (10) | CO3,CO4 | Analytical understanding of wall section |
| WEEK 13 | | **Studio exercise** | | | |
| WEEK 14 | Roofing & Terracing Construction | Lecture, Board sketches | SHEET 7 – Roofing Detail (10) | CO3,CO4, CO5 | Conceptual understanding of roofing systems, evaluation of various terracing solutions |
| WEEK 15 | | **Studio exercise** | | | |
| **WEEK 16** | **FINAL PORTFOLIO SUBMISSION** | **FINAL INTERNAL JURY** | **PORTFOLIO SUBMISSION (100)** | **CO1,CO2, CO3,CO4, CO5,CO6** | **Coordination of all details and enhancing Communication skills** |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| SHEETS | **40 MARKS** | **WEEK 2, 5,6,8,11,13,15** |
| REPORTS | | **WEEK 4, 7,9** |
| INTERNAL JURY | | **WEEK 16** |
| EXTERNAL JURY | **60 MARKS** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. Barry, R. Construction of Buildings, East West Press Pvt. Ltd., New Delhi, 1999
2. Mckay, W.B.; Building Construction (Vol. I, II, III & IV), Orient Longman, London, 1988
3. Allen, Edward., Fundamentals of Building Construction : Materials and Methods, John Wiely & Sons, New York, 1999
4. Punamia B.C., Building Construction, Laxmi Publications (P) Ltd, New Delhi, 1993
5. Chudley, R.; Building Construction Handbook, Butterworth Heinemann, Oxford, 1988
6. Arora, S.P., and Bindra, S.P., Text Book of Building Construction, Dhanpat Rai Publications, 2010
7. Ching, F.D.K., Building Construction Illustrated, Van Nostrand, Reinhold, 5th edition, 2014


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name:-<br>Ar. Prachi Narang | HOD / Dean/ Deputy Director | Director:-<br>Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 02/01/2026 | Date 05-01-2026 | Date 06-01-2026 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 2025-26 | SEMESTER: SEM - 2 |
| SUBJECT CODE: AP- 106 | SUBJECT TITLE: ARCHITECTURAL DRAWING-II |
| SUBJECT TYPE: STUDIO | CREDITS: 3 |
| INTERNAL ASSESSMENT: 40 | EXTERNAL ASSESSMENT (UE): 60 |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 48 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)**

To equip students in 3D visualization by drawings
To develop presentation skills by rendering and graphic representation
To introduce computer aided drafting tools

**COURSE OBJECTIVES (CO) SPECIFIC-**

CO1 – Recall basic architectural drawing terminologies, principles, and types of perspective drawing, including one-point and two-point perspectives, sciography, and fundamental CAD commands.

CO2 – Explain the concepts of perspective construction, shadow formation (sciography) in plans, elevations, and 3D views, and the logic behind CAD drawing environments, layers, and settings.

CO3 – Apply principles of one-point and two-point perspective, sciography, and basic CAD commands to produce accurate architectural drawings and simple 2D digital drawings.

CO4 –Analyse spatial depth, light–shadow relationships, and graphical clarity in manual and CAD-based architectural drawings to improve visual communication and technical accuracy.

CO5 – Evaluate architectural drawings based on scale, proportion, layering, line types, text, hatching, and presentation quality using appropriate drawing standards and conventions.

CO6 – Create well-composed architectural drawings integrating perspective views, sciography, and CAD-based 2D representations with effective rendering, graphic presentation, and digital drafting techniques.

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**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 (REMEMBER) | 1 | 1 | - | - | - | 1 |
| CO2 (UNDERSTAND) | 2 | 2 | - | - | - | 2 |
| CO3 (APPLY) | 3 | 2 | - | - | 1 | 3 |
| CO4 (ANALYSE) | 3 | 2 | - | - | 2 | 2 |
| CO5 (EVALUATE) | 2 | 3 | - | - | 3 | 2 |
| CO6 (CREATE) | 3 | 2 | - | - | 2 | 3 |

**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| WEEK 1 | Introduction to architectural drawing, drawing instruments, line types, scales, lettering | Lecture + Demonstration + Studio Exercise | Sheet on line types & lettering (10) | CO1 | 3D visualization, presentation skills |
| WEEK 2 | Basic architectural drawing terminologies; types of perspective drawing | Lecture + Blackboard explanation | | CO1, CO2 | Identification and Understanding of terminologies, 3D visualization |
| WEEK 3 | **(CULTURAL FEST ANUGOONJ)** | | | | |
| WEEK 4 | Principles of perspective drawing –picture plane, station point, horizon line | Lecture + Guided drawing exercise | A3 Sketches (10) | CO2,CO3 | Visualization skills |
| WEEK 5 | One-point perspective– method, applications | Studio exercise | Sheet: One-point perspective (10) | CO3 | 3D visualization, presentation skills |
| WEEK 6 | Two-point perspective – principles and construction | Lecture + Studio practice | Sheet: Two-point perspective (10) | CO3 | |
| WEEK 7 | Perspective of simple built forms and compositions | Studio exercise | A3 Sketches (10) | CO4 | Visualization, presentation skills |

| | | | | | |
|---|---|---|---|---|---|
| WEEK 8 | Introduction to sciography – principles of light, shade and shadow | Lecture + Demonstration | A3 Sketches Shadow study sketches (10) | CO2 | 3D visualization |
| WEEK 9 | Sciography in plans and elevations, 3D views and perspective drawings | Studio exercise | Sheet: Shadows in plan & elevation (10) | CO3 | Visualization skills |
| **WEEK 10** | **(MID TERM EXAMINATION)** | | | | |
| WEEK 11 | Introduction to CAD – interface, basic commands, setting drawing environment | Lecture + demonstration on Smart Board | CAD exercises (10) | CO1, CO2 | Exposure to AutoCAD software |
| WEEK 12 | Basic 2D CAD commands – line, polyline, offset, trim, extend | Studio Practice Session | CAD exercises (10) | CO1, CO3 | Identification and application of AutoCAD commands |
| WEEK 13 | Layers, colours, line types, text and dimensions | Studio Practice Session | CAD exercises (10) | CO3,CO4, CO5,CO6 | AutoCAD exposure, presentation skills |
| WEEK 14 | Hatching, scaling, layout and preparation of simple architectural drawings in CAD | Studio Practice Session | CAD exercises (10) | | |
| WEEK 15 | Rendering basics, final CAD drawing, review and portfolio compilation | Studio Practice Session | CAD exercises (10) | | |
| **WEEK 16** | **FINAL PORTFOLIO SUBMISSION** | **FINAL INTERNAL JURY** | **PORTFOLIO SUBMISSION (100)** | **CO1,CO2, CO3,CO4, CO5,CO6** | **Coordination of all details and enhancing Communication skills** |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| SHEETS (HAND DRAFTED) | **40 MARKS** | **WEEK 2,5,6,9** |
| **SKETCHES** | | **WEEK 4,7,8** |
| CAD EXERCISES (PRINTED PORTFOLIO) | | **WEEK 16** |
| EXTERNAL JURY | **60 MARKS** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. **Gill, Robert W.; Manual of Rendering with Pen and Ink, Thames and Hudson, London, 1997**
2. **Agarwal, B. and Agarwal, C.M., Engineering Drawing, Tata McGraw-Hill.**
3. **Bhatt, N.D. and Panchal, V.M., Engineering Drawing, Charotar Publication.**


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name:-<br>Ar. Prachi Narang | HOD / Dean/ Deputy Director | Director:-<br>Prof. Bijay Dash |
| Signature Prachi | Signature P. Arora | Signature |
| Date 02/01/2026 | Date 05-01-2026 | Date 06-01-2026 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 2025-26 | SEMESTER: SEM - 2 |
| SUBJECT CODE: AP- 108 | SUBJECT TITLE: ART AND ARCHITECTURAL GRAPHICS-II |
| SUBJECT TYPE: STUDIO | CREDITS: 3 |
| INTERNAL ASSESSMENT: 40 | EXTERNAL ASSESSMENT (UE): 60 |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 48 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)**

To develop techniques of expression of Ideas related to Architecture - Form Space Environment People.

**COURSE OBJECTIVES (CO) SPECIFIC-**

CO1 – Recall fundamental concepts of architectural drawing including scale, proportion, rhythm, harmony, textures, tones, and rendering techniques used in architectural presentations.

CO2 – Explain the role of light, shadow, color, texture, and composition in representing buildings, built environments, and natural elements through sketches and renderings.

CO3 – Apply appropriate drawing, sketching, and rendering techniques using various media (watercolor, acrylic, pen and ink, mixed media, etc.) to visually communicate architectural ideas.

CO4 – Analyze architectural forms, spaces, and environments through outdoor sketching and rendering by interpreting scale, proportion, spatial relationships, and contextual characteristics.

CO5 – Evaluate different modes of architectural rendering and presentation techniques to select suitable methods for effective visual communication of design intent.

CO6 – Create expressive architectural drawings, posters, collages, murals, diagrams, and ideograms that synthesize form, space, environment, and human activity using innovative presentation techniques.

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**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 (REMEMBER) | 2 | 1 | - | 2 | - | 2 |
| CO2 (UNDERSTAND) | 3 | 1 | - | 2 | - | 2 |
| CO3 (APPLY) | 3 | 2 | - | 1 | - | 2 |
| CO4 (ANALYSE) | 3 | - | 2 | 2 | - | 2 |
| CO5 (EVALUATE) | 3 | - | - | | - | 2 |
| CO6 (CREATE) | 3 | 2 | - | 2 | - | 3 |

**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| WEEK 1 | Introduction to Art & Architectural Graphics: Basics of Freehand Drawing: Line quality, proportion, scale | **Demonstration, Studio exercise** | 2D Composition using 15 different shades. | CO1,CO2 | Visual perception & representation |
| WEEK 2 | Outdoor Sketching – Built Forms: Understanding scale & proportion | On-site sketching | | CO2,CO3 | |
| WEEK 3 | **(CULTURAL FEST ANUGOONJ)** | | | | |
| WEEK 4 | Rhythm & Harmony in Architecture | Lecture, Studio Exercise, Sketch analysis | 2D Composition using 15 different shades. (50) | CO2 | Design understanding and Spatial understanding |
| WEEK 5 | Light & Shadow – Theory and Application | Demonstration, Studio exercise | | CO3 | |
| WEEK 6 | Rendering of Architectural Elements with Light & Shade | Hands-on exercise, Faculty guidance | Artwork on Canvas (theme- Indian architects and their work) (50) | CO3,CO6 | Translating 3D to 2D |
| WEEK 7 | Introduction to Rendering Media: Pencil, Pen & Ink, Brush | Demonstration, Studio Activity | | CO3 | Skill development |
| WEEK 8 | Water Colour & Water-Soluble Colour Pencils | Demonstration, Studio Activity | | CO3,CO6 | Colour application |

| | | | | | |
|---|---|---|---|---|---|
| WEEK 9 | Tempera, Acrylic & Oil Colours – Techniques & Effects | Demonstration, Studio Activity | | CO3,CO6 | Advanced rendering skills |
| WEEK 10 | **(MID TERM EXAMINATION)** | | | | |
| WEEK 11 | Mixed Media Techniques & Textural Effects | Studio exercise, Experimentation | A2 Composition using different geometrical shapes. | CO4,CO6 | Creative exploration |
| WEEK 12 | Posters, Collages & Murals in Architectural Presentation | Lecture, Design exercise | | CO3, CO5,CO6 | Visual communicatio n |
| WEEK 13 | | | | | |
| WEEK 14 | Creative Architectural Composition using Multiple Media | Independent studio work | A2 shadow Composition | CO3,CO6 | Integration of skills |
| WEEK 15 | | | | | |
| **WEEK 16** | **FINAL PORTFOLIO SUBMISSION** | **FINAL INTERNAL JURY** | **PORTFOLIO SUBMISSION (100)** | **CO1,CO2, CO3,CO4, CO5,CO6** | **Coordination of all details and enhancing Communicati on skills** |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| SHEETS A2 | **40 MARKS** | **WEEK 5,13,15** |
| CANVAS COMPOSITION | | **WEEK 9** |
| INTERNAL JURY | | **WEEK 16** |
| EXTERNAL JURY | **60 MARKS** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. **Jax Themier, B.W., "How to Paint and Draw", Thames and Hudson, 1985.**
2. **Bhattacharya, B. and Bera, S.C., Engineering Graphics, I.K. International**


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|---|---|---|
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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 2025-26 | SEMESTER: SEM - (EVEN/ODD SEMESTER) |
| SUBJECT CODE: AP- 110 | SUBJECT TITLE: WORKSHOP (NUES)-II |
| SUBJECT TYPE: PRACTICAL (NUES) | CREDITS: 3 |
| INTERNAL ASSESSMENT: 100 | EXTERNAL ASSESSMENT (UE): NUES |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 48 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

To know to use traditional tools and to have hands on experience with materials and construction

**COURSE OBJECTIVES (CO) SPECIFIC-**

CO1 – Recall the types, terminology, and components of traditional carpentry joints used in architectural construction.

CO2 –Explain the functionality and appropriate application of different joinery details used with wood, boards, MDF, and brick cast models in architectural construction and model-making.

CO3 – Execute basic carpentry joints by applying appropriate joinery techniques to given construction and model-making situations.

CO4 –Analyze different joinery and fixing methods (such as nailing and screwing) to determine their suitability for specific architectural and construction contexts.

CO5 –Evaluate alternative joinery and fixing methods for executing a simple product design using different materials such as wood, boards, MDF, sheet metal, and brick cast, with reference to strength, constructability, and detailing.

CO6 –Design and fabricate a simple stationary or utility product using multiple materials, demonstrating appropriate fixing, joinery detailing, and integration of materials for the same design concept.

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**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 (REMEMBER) | 1 | 2 | - | - | 1 | - |
| CO2 (UNDERSTAND) | 2 | 3 | 1 | - | 1 | - |
| CO3 (APPLY) | 3 | 3 | - | - | 1 | - |
| CO4 (ANALYSE) | 2 | 3 | - | - | 2 | - |
| CO5 (EVALUATE) | 3 | 3 | 1 | - | 2 | 2 |
| CO6 (CREATE) | 3 | 3 | 1 | - | 1 | 3 |

## WEEKLY SCHEDULE

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| WEEK 1 | Introduction to workshop practices, materials used in carpentry, overview of traditional joinery in architecture | Lecture, visual examples, discussion of built details | Sketch and label common carpentry joints (10) | CO1 | Familiarization with materials and construction logic |
| WEEK 2 | Types of carpentry joints – lap, butt, mortise & tenon, housing joints (architectural relevance) | Lecture demonstration, hands-on observation, joinery sketches | Execution of basic joints in wood/MDF (20) | CO1, CO2, CO3 | Hands-on understanding of joinery |
| WEEK 3 (ANNUGOONJ) | | | | | |
| WEEK 4 | | | | | |
| WEEK 5 | Fixing methods – nailing vs screwing; advantages, limitations, applications | Lecture, comparison exercise, group discussion | Comparative study sheet with samples/sketches (10) | CO4 | Understanding construction suitability |
| WEEK 6 | Brick cast models – introduction, casting process, brick bond logic, joinery relevance | Demonstration, hands-on casting, discussion | Brick cast model of basic masonry unit/bond (20) | CO2, CO3 | Understanding material behavior & construction logic |
| WEEK 7 | | | | | |
| WEEK 8 | Integration of materials – wood, MDF, brick cast (junctions and fixing) | Lecture , Discussion | Sketches of Junction details using two materials (10) | CO2, CO4 | Understanding material interfaces |

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| | | | | | |
|---|---|---|---|---|---|
| WEEK 9 | Introduction to sheet metal work – folding, basic fabrication and fixing | Lecture, Class Discussions | Sketches on metal component with fixing details (10) | CO2, CO3 | Exposure to fabrication techniques |
| **WEEK 10** | **(MID TERM EXAMINATION)** | | | | |
| WEEK 11 | Product design introduction – same design, different materials; joinery decisions | Lecture, case studies, design discussion | Concept sketches for stationery/utility product (10) | CO3,CO4, CO5 | Design thinking through material logic |
| WEEK 12 | Evaluation of joinery options for selected product design | Design review, critique session | Joinery & fixing justification sheet | CO3.CO4, CO5 | Decision-making based on constructability |
| WEEK 13 | Fabrication of product – execution using selected materials | Hands-on Activity | Product fabrication – Stage 1 | CO6 | Application of joinery knowledge |
| WEEK 14<br>WEEK 15 | Product completion and detailing | Hands-on workshop | Product fabrication – Stage 2 | CO6 | Integration of materials and detailing |
| **WEEK 16** | Product Final submission | Internal Jury ,discussion | Final product + process documentation (50) | CO1,CO2, CO3, CO4, CO5,CO6 | Demonstration of learning outcomes |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **A3 SHEET** | **100 MARKS** | **WEEK 1,5,8,9** |
| **MODELS** | | **WEEK 4,7** |
| **FINAL PRODUCT DESIGN** | | **WEEK 16** |

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# B. ARCH
# TEACHING PLAN (2024-25)

| | |
|---|---|
| **Year: First year** | **Semester : second** |
| **Subject Code:** AP-122 | **Subject:** Theory of structures -II |
| **Subject Type:** Theory | **Credits:** 02 |

## OBJECTIVES

- **General Objectives**
  To understand the basic principles and applications of structural design with Masonry and Timber.
- **Specific Objectives**
  Theory of structures II deals with design of structures with the help of brick masonry and timber.Inthis subject students get some knowledge about distribution of basic loads from top to base of structure. Some building material properties of cement, bricks, lime, and timber. Basic Analysis of trusses. Basic analysis of timber beams and arches.

## TEACHING METHODOLOGY

- **Testing of previous Knowledge**
- Basic knowledge of shear force and bending moment calculation.
- Basic knowledge of cement, bricks and timber.
- Basic knowledge of trusses and arches.

- **Teaching Aids**
  **IS code 1905:1987**

- **Assignments Details**
  **Q. Dis**tinguish between load bearing structures and framed structures.
  Q.What are the properties of cement as a building material.
  Q.What are the properties of bricks as a building material.
  Q.What are the properties of timber as a building material.
  Q.Name the load bearing members of a residential building and explain how they transferring the load from top to base of foundation.
  Q.Distinguish between one way and two way slab.
  Q.Explain different types of arches with diagram.
  Q.What do you mean by frames and also explain its classification with its example.
  Q.Write down stepwise procedure for method of sections for truss analysis.
  Q.Write down stepwise procedure for method of joints for truss analysis.
  Q. Write down stepwise procedure for design of Timber beams.

## LEARNING OUTCOME

1. Students are able to know the transmission of load on structure from top to base.
2. Students are able to know the properties of cement, bricks and timber.
3. Students are able to know the methods of analysis of trusses.
4. Students are able to calculate the stresses in beams.
5. Students are to calculate the stresses in foundation.

MBS SCHOOL OF PLANNING AND ARCHITECTURE, SECTOR-9, DWARKA
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| Prepared by | Reviewed by | Approved by |
|---|---|---|
| Er.Kpil Prabhat Verma | HOD/DEAN/DEPUTY DIRECTOR | Director |
| Signature with Date 02/01/2026 | Ar.Praveen Arora 05/01/2026 | Prof.Bijay Dash 06/01/2026 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 2025-26 | SEMESTER: SEM - 2 |
| SUBJECT CODE: AP- 124 | SUBJECT TITLE: HISTORY OF ARCHITECTURE |
| SUBJECT TYPE: THEORY | CREDITS: 2 |
| INTERNAL ASSESSMENT: 40 | EXTERNAL ASSESSMENT (UE): 60 |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 32 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

To understand various building typologies and landscape emerging out of different ideologies and Cultural practices in historical periods in India. To understand, primarily, the Essential, Conceptual Typological \similarities in spite of stylistic variations.

**COURSE OBJECTIVES (CO) SPECIFIC-**

**CO1:- Recall and identify** major architectural typologies, elements, and terminology associated with Buddhist, Hindu, Islamic, and Mughal architecture in India, including stupas, chaityas, viharas, temples, mosques, tombs, forts, palaces, and courtyard-based complexes.

**CO2:- Explain** the influence of religious beliefs, socio-cultural practices, political ideologies, and regional contexts on the evolution of architectural forms and spatial organizations across historical periods in India.

**CO3 :- Apply** fundamental historical planning principles such as axiality, symmetry, hierarchy, courtyard planning, and climate responsiveness derived from Indian historical architecture to basic architectural design and analytical exercises.

**CO4:- Analyse and compare** architectural typologies and spatial configurations across different dynasties and regions, identifying essential conceptual and typological similarities despite stylistic variations through selected case studies.

**CO5:- Evaluate** the effectiveness and relevance of traditional Indian architectural practices in addressing climate, sustainability, cultural continuity, and social use within contemporary architectural discourse.

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**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 (REMEMBER) | 2 | - | 1 | 3 | - | 1 |
| CO2 (UNDERSTAND) | 2 | - | 3 | 3 | - | 2 |
| CO3 (APPLY) | 3 | 2 | 3 | 3 | 1 | 2 |
| CO4 (ANALYSE) | 3 | 2 | 3 | 3 | 2 | 2 |
| CO5 (EVALUATE) | 3 | - | 3 | 3 | 1 | 2 |

## WEEKLY SCHEDULE

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| WEEK 1 | UNIT 2 –Buddhist Architecture Philosophy & Architectural Origins | Lecture, Visual Presentation | A3 Sketches - Typology & Spatial Experience of Buddhist Architecture- Stupa, Chaitya, and Vihara typologies Sectional perspective showing circumambulatory movement | CO1, CO2 | Understanding ideology & cultural context |
| WEEK 2 | Stupas: Sanchi, Sarnath – symbolism, form, movement | Lecture, Visual Presentation | | CO1, CO2 | Understanding typology & symbolism |
| WEEK 3 | **ANUGOONJ** | | | | |
| WEEK 4 | Chaityas & Viharas: Karli, Ajanta – rock-cut logic, Ellora & Bodhgaya | Lecture, Visual Presentation | A3 Sketches - Light and spatial character in rock-cut caves (Ajanta, Ellora, Karli & Bodhgaya) | CO2, CO4 | Typological & spatial understanding |
| WEEK 5 | UNIT 2 – Hindu Temple Architecture- Evolution of Hindu Temples: Gupta, Nagara, Dravida | Lecture, Visual Presentation | A3 Sketches - Sacred Geometry and Temple Form- Evolution of temple forms (Gupta to Chola) | CO1, CO2 | Understanding form evolution |
| WEEK 6 | Orissa & Khajuraho; Mandala & sacred geometry | Lecture, Visual Presentation | A3 Sketches - Vastu Purusha Mandala translated into temple planning | CO1, CO2,CO3 | Applying planning principles |

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| | | | | | |
|---|---|---|---|---|---|
| WEEK 7 | South Indian Temples: Chalukya, Chola, Vijayanagar, Madurai | Lecture, Visual Presentation | MODEL 1- Hindu temples | CO1, CO2, CO4 | Spatial & structural analysis |
| WEEK 8 | Pilgrimage centres: Varanasi ghats & temple towns | Lecture, Visual Presentation | A3 Sketches- Street–temple–ghat relationship (Varanasi / Madurai) | CO1, CO3, CO4 | Cultural & urban analysis |
| WEEK 9 | UNIT 3- Islamic Architecture in India- Mosque typologies | Lecture, Visual Presentation | A3 Sketches- Mosque or tomb plan with courtyard and axis | CO1, CO2 | Understanding religious influence |
| **WEEK 10** | **(MID TERM EXAMINATION)** | | | | |
| WEEK 11 | Delhi Sultanate Architecture: Khalji, Tughlaq, Lodhi, Sher Shah Suri; Tombs, gardens & forts | Lecture, Visual Presentation | MODEL 2- Mosques and Tombs of Delhi Sultanate period | CO1,CO2 | Analyzing form & proportion |
| WEEK 12 | Deccan architecture: Golconda, Bijapur | Lecture, Visual Presentation | A3 Sketches- Golconda fort, Gol Gumbaz, Bijapur | CO2,CO3,CO4, CO5 | Analytical & evaluative understanding |
| WEEK 13 | UNIT 4- Mughal Architecture, Akbar – planning & synthesis | Lecture, Visual Presentation | A3 Sketches- Mughal Architecture- Mughal palaces, Tombs | CO2,CO3 | Understanding spatial hierarchy |
| WEEK 14 | Shahjahan period; forts, palaces, religious buildings | Lecture, Visual Presentation | A3 Sketches- Mughal palaces, Tombs | CO2,CO3,CO4 | Applying compositional principles |
| WEEK 15 | Jaipur & Lucknow; courtyard & urban form | Lecture, Visual Presentation | A3 Sketches-Urban form sketches of Jaipur or Lucknow, Conceptual sketch of a contemporary courtyard-based space | CO2,CO4,CO5 | Evaluating traditional planning relevance |
| **WEEK 16** | **REVISION** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **A3 SKETCHBOOK** | **40 MARKS** | **WEEK 2, 4,5,6, 8,9,12,13,14,15** |
| **MODEL** | | **WEEK 7, 11** |
| **MID TERM REVIEW** | | **WEEK 10** |
| **EXTERNAL JURY** | **60 MARKS** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. **Tadgel, Christopher History of Architecture in India Paperback – 6 Jul 1994**
2. **Kostof, Spiro; History of Architecture, Oxford University Press, New York, 1995**
3. **Raeburn, Michael; Architecture of the Western World, Popular Press, England, 1988**
4. **Shukla, D.N.; Vastu Shastra, Munshiram Mohanlal, New Delhi, 1993**


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| Faculty Name:-<br>Ar. Prachi Narang | HOD / Dean/ Deputy Director | Director:-<br>Prof. Bijay Dash |
| Signature | Signature | Signature |
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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 2025-26 | SEMESTER: SEM - 2 |
| SUBJECT CODE: AP- 126 | SUBJECT TITLE: BUILDING MATERIAL SCIENCES- II |
| SUBJECT TYPE: THEORY | CREDITS: 2 |
| INTERNAL ASSESSMENT: 40 | EXTERNAL ASSESSMENT (UE): 60 |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 32 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

To have an understanding of the properties, characteristics, strength, manufacture, processing and application of materials.
To sensitize the students to the use of these naturally occurring materials in the context of creating a green architecture

**COURSE OBJECTIVES (CO) SPECIFIC-**

**CO1:-** Recall the classification, characteristics, defects, seasoning methods, preservation techniques, market forms, and typical timber species of India used in building construction.

**CO2:-** Explain the properties, materials, functions, and applications of door and window hardware such as hinges, locks, bolts, handles, stoppers, stays, and related fittings.

**CO3 :-** Apply knowledge of plywood, fiber boards, veneers, lamin boards, and batten boards to select appropriate engineered wood products for specific architectural requirements.

**CO4:-** Analyze different types of paints, polishes, and varnishes for woodwork with respect to composition, surface preparation, application methods, performance characteristics, and defects.

**CO5:-** Evaluate various types of glass and glass products based on manufacturing process, physical and thermal properties, performance, and suitability for architectural applications.

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**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 (REMEMBER) | 2 | 2 | 1 | - | - | 1 |
| CO2 (UNDERSTAND) | 2 | 2 | 2 | - | 2 | 3 |
| CO3 (APPLY) | 3 | 3 | 2 | - | 2 | 3 |
| CO4 (ANALYSE) | 2 | 3 | 2 | - | 2 | 2 |
| CO5 (EVALUATE) | 2 | 3 | 3 | - | - | 1 |

**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| WEEK 1 | Introduction to Building Material Science – role of materials, classification, **Timber –** classification, characteristics, properties | Lecture + Visual examples | REPORT ON TIMBER | CO1 | Identify classification and properties of timber |
| WEEK 2 | Defects in timber – causes, prevention, Seasoning of timber – methods, advantages, Preservation of timber, market forms, conversion of timber, properties & uses | Lecture + Visual examples | | CO1,CO2 | Understanding properties of timber |
| WEEK 3 | **ANUGOONJ** | | | | |
| WEEK 4 | Timber Species in India | Lecture + Visual examples | | CO1,CO2 | Recall suitability of Indian timber species |

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| | | | | | |
|---|---|---|---|---|---|
| WEEK 5<br>WEEK 6 | **Door & Window Hardware** – types, materials, functions, fixing methods, selection criteria | Lecture + Visual examples | MATERIAL BOARD-HARDWARE USED IN WOODEN DOORS AND WINDOWS. | CO1,CO2, CO3 | Explain properties and applications of hardware |
| WEEK 7 | Timber – **Engineered Wood Products** – plywood, veneers | Lecture + Manufacturing videos on Smart Board | Market Survey and Material Board | CO1,CO2, CO3 | Understanding and Applicability of Timber in the Construction Market. |
| WEEK 8 | Fiber boards, laminates, batten boards – properties & uses | Lecture + Visual examples | | | |
| WEEK 9 | **EVALUATION AND DISCUSSION OF TIMBER AND HARDWARE MATERIAL BOARD** | | | | |
| WEEK 10 | **(MID TERM EXAMINATION)** | | | | |
| WEEK 11 | **Paints** – classification, constituents, characteristics | Lecture + Visual examples | REPORT ON PAINT | CO1,CO2, CO4 | Analyze paint composition and performance |
| WEEK 12 | Surface preparation, paint application, defects in painting | Lecture + Visual examples | | | Analyze causes and remedies of paint defects |
| WEEK 13 | **Polishes & Varnishes** – ingredients, varnishing process | Lecture + Visual examples | | | Analyze finishing techniques for woodwork |
| WEEK 14 | **Glass** – manufacture, properties, types of glass | Lecture + Visual examples | REPORT ON GLASS | CO1,CO2,CO3, CO5 | Evaluate glass properties and performance |
| WEEK 15 | Glass applications – safety glass, films, blocks, glass wool | Lecture + Visual examples | | | Evaluate suitability of glass in architecture |
| **WEEK 16** | **REVISION** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **REPORTS** | **40 MARKS** | **WEEK 2,13,15** |
| **MATERIAL BOARD** | | **WEEK 6,8** |
| **MID TERM REVIEW** | | **WEEK 10** |
| **EXTERNAL JURY** | **60 MARKS** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. **Varghese P.C., "Building Materials", Prentice Hall of India put Ltd New Delhi, 2005.**
2. **Gernot Minke and Friedemann Mahlke "Building with straw: Design and Technology of a**
3. **Sustainable Architecture", Birkhauser, Publisher for Architecture Berlin, Bostan, 2005.**
4. **Duggal S.K., "Building materials", Oxford and IBH publishing Co, put, Ltd, New Delhi, 1997.**
5. **Spencke R. F. and Cook D.J., "Building Materials in Developing Countries", John Wiley and sons 1983.**
6. **Ghosh D.N. Materials of Construction , Tata McGraw-Hill1989**


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name:-<br>Ar. Prachi Narang | HOD / Dean/ Deputy Director | Director:-<br>Prof. Bijay Dash |
| Signature Prachi | Signature P. Dubey | Signature |
| Date 02/01/2026 | Date 05-01-2026 | Date 06-01-2026 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR: 2025-26 | SEMESTER: SEM – II (EVEN SEMESTER) |
| SUBJECT CODE: AP- 128 | SUBJECT TITLE: CLIMATOLOGY |
| SUBJECT TYPE: THEORY | CREDITS: 2 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 32 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- To acquaint the students with underlying parameters of Human Comfort in relation to built environment
- To apprise students of climate and its impact on buildings
- To equip the students with strategies and techniques to regulate the impact of climatic factors in buildings

## COURSE OBJECTIVES (CO) SPECIFIC-

**CO1** – Recall fundamental concepts of climate, climatology, and human comfort, including climatic elements, climatic zones, and their relevance to architecture.

**CO2** – Explain the relationship between climate and the built environment, including the impact of heat, light, air, and climatic factors on human comfort and building performance.

**CO3** – Apply climatic data, comfort indices, sun-path diagrams, psychrometric charts, and ventilation principles to inform basic architectural design decisions.

**CO4** – Analyze thermal, visual, and ventilation performance of buildings by evaluating heat flow, daylight availability, air movement, material behavior, and envelope design.

**CO5** – Evaluate building orientation, form, materials, and openings to regulate solar gain, heat exchange, daylight, and ventilation for improved comfort.

**CO-PO MAPPING - (3-point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 1 | 1 | 1 | 2 | - | - |
| CO2 | 2 | 2 | 3 | 2 | - | - |
| CO3 | 3 | 2 | 3 | - | 1 | -- |
| CO4 | 3 | 3 | 3 | - | - | |
| CO5 | 3 | 2 | 3 | - | 2 | - |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| **Week 1st** | **Unit-1**<br>**Introduction to the Climate & Climatology**<br>Climate and Architecture | Lecture, PPT Presentation | ---------- | CO1, CO2 | Identify and explain different climatic zones and climatic elements such as temperature, solar radiation, wind, humidity, and rainfall and their influence on the built environment. |
| **Week 2nd** | **Unit-1**<br>**Elements of climate** - solar radiation, temperature, wind, humidity & precipitation and their measurement, | Lecture, PPT Presentation | ---------- | | |
| Week 3rd | **Anugoonj** | **4thFeb 2026 to 6th Feb 2026** | | | |
| Week 4th - 5th | **Unit-1**<br>**Climate types:**<br>Global Climatic Zones, Tropical climate, climatic zones of India, Macro and Micro Climate, Development of traditional/vernacular architecture in response to climate | Lecture, PPT Presentation | **Assignment:**<br>Each student is required to choose ONE climatic zone from the following:<br>• Hot and Dry<br>• Warm and Humid<br>• Composite<br>• Cold<br>• Temperate<br>Students must study and describe the selected climatic zone in detail, focusing on its climatic characteristics and architectural responses. The information should be presented clearly using text, diagrams, sketches, and illustrations on an A3 sheet. | CO2, CO3 | Analyze climate-responsive architectural strategies used in traditional and contemporary buildings across different climatic zones. |

| | | | | | |
|---|---|---|---|---|---|
| Week 6th | **Unit-2: Heat**<br>Thermal Comfort, Heat exchange process of human body, thermal comfort indices, Psychometric charts.<br>Effective Temperature and isopleths, CET, Adaptive comfort, operative temperature | PPT Presentation using Smart board & Discussion | | CO3, CO4, CO5 | Understand human thermal comfort by interpreting heat exchange processes, comfort indices, and basic environmental design tools such as psychrometric charts and sun-path diagrams. |
| Week 7th | Building heat exchange: Sol Air Temperature, Solar Gain Factor, methods of heat exchange in buildings, | PPT Presentation using Smart board & Discussion | | | |
| Week 8th | Thermal Quantities: Temperature, Heat, Heat Flow Rate Specific Heat, Conductance, Resistance, Surface Conductance, U value, Periodic Heat Flow, Time Lag & decrement factor, Effect of Different Materials. | PPT Presentation using Smart board & Discussion | | | |
| Week 9th | Effect of Multilayered Bodies - Insulation/Cavity. To interpret climatic data for design to determine potential strategies for achieving thermal comfort by design of building envelope | PPT Presentation using Smart board & Discussion | | | |
| Week 10th | **MID-TERM Exam** | | | | |
| Week 11th | **Unit-3: Light**<br>Sun path diagrams: concept and interpretation, Understanding the solar position of a place, azimuth, altitude, solar incidence. | PPT Presentation using Smart board & Discussion | **Assignment:**<br>Students must select a building or a defined urban area (such as a traditional courtyard house or a modern business district) and analyze the relationship between the broader regional climate and the specific environmental conditions at the site level. The information should be presented clearly using text, diagrams, sketches, and illustrations on an A3 sheet. | CO3, CO4, CO5 | Apply climatic principles to analyse building orientation, form, materials, openings, and shading devices for improved thermal, visual, and ventilation comfort. |
| Week 12th | Shadow angle protractor for designing shading devices. | PPT Presentation using Smart board & Discussion | | | |
| Week 13th | Daylight: Natural light, day light factor, concept of glare and glare index, determination of daylight | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | factor using graphical techniques. Principles of day lighting in buildings. | PPT Presentation using Smart board & Discussion | | | |
| Week 14th | **Unit-4: Air** Ventilation and air movement: wind chart, wind rose, Assessment of natural ventilation, Movement of air in and around buildings, WWR, Sizing and positioning of opening in buildings, Stack effect. | PPT Presentation using Smart board & Discussion | ---------- | CO3, CO5 | Apply climatic principles to analyze building orientation, form, materials, openings, and shading devices for improved thermal, visual, and ventilation comfort. |
| Week 15th | Building Orientation and its impact on admission/exclusion of sun, air and daylight in buildings. | PPT Presentation using Smart board & Discussion | ---------- | CO3, CO5 | |
| Week 16th | Doubt Clearing session, Revision, and solving previous year papers. | | | | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. Koenigsberger, Q. H. (et. al.); Manual of Tropical Housing & Building, Orient Longman, Madras,1988

2. Arvind Krishan, Climate Responsive Architecture, Tata McGraw- Hill Publishing Company Limited New Delhi, 2001.

3. Harris, Charles W. / Dines, Nicholas T.; Time Savers Standards for Landscape Architecture, Mc Graw Hill, USA, 1998

4. Givoni B, Mariclimate & Architecture


## List of Deliverables

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignment** | **40** | Week5, Week 12 |
| **Mid-term Review** | | Week 10 |
| **End Term Exam** | **60** | |

| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Ar. Sramana Banerjee | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date 02/01/2026 | Date 05-01-2026 | Date 06-01-2026 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR: 2025-26 | SEMESTER: SEM – II (EVEN SEMESTER) |
| SUBJECT CODE: AP- 130 | SUBJECT TITLE: ARCHITECTURE AND WRITING |
| SUBJECT TYPE: THEORY | CREDITS: 2 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 32 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**
Learning about writing as an important aspect in architectural academics and practice. Develop skill of writing for architectural purpose.

**COURSE OBJECTIVES (CO) SPECIFIC-**

**CO1** – To **Recall** fundamental concepts, objectives, and forms of writing such as procedure, description, report, and explanation relevant to architecture and communication.

**CO2** – To **Explain** the role of writing as a medium for representation of ideas in architecture, independently and in combination with drawings, sketches, and photographs.

**CO3** – To **Apply** principles of technical, professional, journalistic, and business communication in architectural writing tasks such as reports, news items, and project descriptions.

**CO4** – To **Analyze** different types of architectural writings including reviews, critical appraisals, journalism pieces, and theoretical texts for audience, intent, and content structure.

**CO5** – To **Evaluate** architectural documents, biographies, research papers, and project reviews with respect to authenticity, authorship, ethics, plagiarism, and copyright norms.

**CO6** – To **Create** original written outputs such as project documentation, web content, research papers, and dissertation-style writing integrating theory, history, and professional practice.

**CO-PO MAPPING - (3-point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 1 | 1 | - | 2 | - | - |
| CO2 | 3 | - | - | 2 | - | - |
| CO3 | 2 | 2 | - | 1 | - | - |
| CO4 | 2 | - | - | 3 | 3 | - |
| CO5 | 1 | - | - | 3 | 3 | - |
| CO6 | 3 | 1 | 1 | 3 | 2 | 2 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| Week 1st-2nd | **Unit-1: Basic Concepts and objectives of writing. (Procedure, Description, Report, Explanation)** | **Lecture, PPT Presentation** | Architectural Description, Analysis and Technical Reporting of a Built Space. Each student shall select one built architectural space from the following:<br>a) A public building (museum, library, auditorium, railway station, airport, etc.)<br>b) An institutional building (college, school, hospital)<br>c) A heritage or culturally significant structure<br>d) A contemporary residential or commercial building<br>Details: Submit a report (1000-1500 words) supported by drawings, sketches, and photographs.<br>**Size of the report: A4**<br>**Marks :10** | **CO-1, CO-2** | On completion of this unit, students will be able to identify and apply basic forms of writing—procedure, description, report, and explanation—to clearly and logically communicate information with appropriate structure, purpose, and clarity. |
| Week 3rd | **Anugoonj** | **4thFeb 2026 to 6th Feb 2026** | ---------- | | |
| Week 4th - 5th | **Unit- 2 Communication** Writing as a medium of representation of Ideas, independently, and along with other media like drawing sketching and photography. Technical communication Professional and Business Communication | **Discussion** | Architectural Description, Analysis and Technical Reporting of a Built Space. Each student shall select one built architectural space from the following:<br>a) A public building (museum, library, auditorium, railway station, airport, etc.)<br>b) An institutional building (college, school, hospital)<br>c) A heritage or culturally significant structure | | On completion of this unit, students will be able to communicate architectural ideas effectively through clear written expression, both independently and in integration with drawings, sketches, and photographs, and demonstrate basic competence in technical, |

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| | | | d) A contemporary residential or commercial building<br><br>Details: Submit a report (1000-1500 words) supported by drawings, sketches, and photographs.<br>**Size of the report: A4**<br>**Marks:20** | | professional, and business communication relevant to architectural practice. |
| Week 6th | **Unit- 2 Communication** Technical communication, Professional and Business Communication | **Lecture, PPT Presentation, Discussion** | Explore technical writing in architecture focusing on clarity and precision.<br><br>Integrated Architectural Communication: Writing with Visual Media and Professional Practice. | | To enable students to effectively represent architectural ideas through clear, structured, and professional writing, both independently and in integration with visual media such as drawings, sketches, and photography, and to develop competence in technical, professional, and business communication essential for architectural practice. |
| Week 7th | **Unit-3: Journalism** Understanding the scope of writing for diverse audience or readers. | **Discussion** | Each student must select **one architectural project, event, exhibition, seminar, urban issue, or contemporary architectural trend** and prepare **three distinct written pieces**, each targeted at a different audience and publication platform. The first piece shall be a **news report (300–400 words)** written for a **general audience**, focusing on factual information such as what happened, where, when, why it is significant, and who was involved, using clear and accessible language.<br>**Size of the report: A4**<br>**Marks:20** | | On completion of this unit, students will be able to produce clear and audience-appropriate architectural journalism for print and digital platforms, including news items, event coverage, project descriptions, and reviews, demonstrating an understanding of publication formats, readership diversity, and ethical communication practices. |
| Week 8th-9th | **Unit-3: Journalism** | **PPT Presentation Discussion** | Each student will select **one architectural event, exhibition, seminar, or built project** and prepare | | |

| | | | | | |
|---|---|---|---|---|---|
| | For printed for theoretical Journals and commercial magazines, news items and event coverage like Exhibitions, Seminars. Project description, Reviews. Web Content development for web-based publications. | | a **set of journalistic writings** tailored to different publication platforms. The assignment shall include a **news item (300–400 words)** suitable for a **newspaper or commercial magazine**. **Size of the Report: A4 Marks:20** | | |
| Week 10th | **MID-TERM Exam** | | | | |
| Week 11th | **Unit-4: Knowledge** Documentation of works of Architects, Organizations and Architecture, Biographies. | | Each student will select **one architect, architectural firm, organization, or historically significant building** (Indian or international) and prepare a **documented profile** that includes a brief **biographical account**, major works or projects, design philosophy, and the architect's or organization's contribution to architecture and society. The documentation should be presented in a **clear, structured written format (800–1000 words)** and may be supported with **illustrations, photographs, sketches, or diagrams**, all properly captioned and referenced. Emphasis should be placed on **accurate information, logical organization, and clarity of** | | On completion of this unit, students will be able to document and present information on architects, architectural organizations, and significant works in a structured and coherent manner, demonstrating basic research skills, an understanding of architectural contributions, and the ability to communicate knowledge through clear written documentation. |
| Week 12th | **Unit-4: Knowledge** Critical Appraisals, Book Reviews. Project reviews. | | | | On completion of this unit, students will be able to critically appraise architectural works, books, and projects, and |

| | | | | | |
|---|---|---|---|---|---|
| | Writing of History and Theoretical studies | | **expression**, introducing students to the importance of documentation as a tool for knowledge building, professional learning, and historical record in architecture.<br>**Size of the Report: A4**<br>**Marks:30** | | produce structured reviews and introductory historical or theoretical writings that demonstrate basic critical thinking, contextual understanding, and clarity of architectural interpretation. |
| Week 13th<br>Week 14th | **Unit-4: Knowledge** Research writing. Dissertation writing. | **One to one Discussion** | Students are required to critically examines the process of research and dissertation writing, the ethics of academic publication, the concept of authorship, and issues related to plagiarism and copyright in academic work. | | Understand and apply the principles of effective research and dissertation writing. |
| Week 15th | **Unit-4: Knowledge Publication, Concept of Authorship Plagiarism Copyright.** | **One to one Discussion** | | | Analyse complex site conditions, user needs, spatial systems, structural logic, and building services to derive informed and coherent design solutions. |
| Week 16th | **Revision** | | | | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. Paul-Alan Johnson; The theory of Architecture, John Wiley & Sons. Inc., 1993
2. ARQ: Architectural Research Quarterly, Cambridge University Press
3. Journal of Indian Institute of Architects, White Falcon Publishing
4. Journals of Landscape, Brijender S. Dua, C-589, Vikas Puri

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## List of Deliverables

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignment** | 40 | Week2, Week 5, Wee 9, Week 12 |
| **Mid-term Review** | | Week 10 |
| **End Term Exam** | 60 | |

| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Ar. Sramana Banerjee | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date 02/01/2026 | Date 05-01-2026 | Date 06-01-2026 |

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## B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-2026

| | |
|---|---|
| YEAR : **2026** | SEMESTER: **EVEN** |
| SUBJECT CODE: **AP-202** | SUBJECT TITLE: **ARCHITECTURAL DESIGN- IV** |
| SUBJECT TYPE: **STUDIO** | CREDITS: **8** |
| INTERNAL ASSESSMENT: **40 Marks** | EXTERNAL ASSESSMENT (UE): **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS: **16 WEEKS- 128 HOURS** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- To learn designing with explicit respect or reference to or within a larger Socio-Cultural or Environmental Settings or Context: Urban or Rural, Traditional or Contemporary.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO1: Perform Site Analysis and Contextual Response** - Develop a comprehensive site analysis, including climatic, topographic, and socio-cultural parameters to justify design interventions within a specific urban or semi-urban context.
- **CO2: Conceptualize Integrated Design Solutions** - Synthesize complex functional requirements into a coherent architectural concept that balances aesthetic form with utilitarian value.
- **CO3: Apply Regulatory Codes and Standards** - Demonstrate the application of local building byelaws, NBC standards, and accessibility guidelines (barrier-free design) in the development of building plans and sections.
- **CO4: Integrate Structural and Service Systems** - Coordinate architectural forms with appropriate structural systems and building services (HVAC, fire safety, and plumbing) to ensure technical feasibility and safety.
- **CO5: Execute Professional Architectural Presentations** - Communicate design intent through high-quality technical drawings, 3D visualizations, and physical models using both manual and digital tools.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No. | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1: Perform Site Analysis and Contextual Response | 3 | 1 | 2 | 3 | 1 | 2 |
| CO2: Conceptualize Integrated Design Solutions | 3 | - | - | - | - | 3 |
| CO3: Apply Regulatory Codes and Standards | - | - | 3 | - | 3 | - |
| CO4: Integrate Structural and Service Systems | - | 3 | 2 | - | - | - |
| CO5: Execute Professional Architectural Presentations | - | - | - | 3 | 3 | - |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1st week | **Introduction to the design problem.** **Lecture:** Understanding the project of the Museum, its spatial system in a formally planned system, integrating built and unbuilt spaces with respect to multi-functional demands of the project | Lecture & Discussion on Design Brief | | **CO-1** | |
| 2nd week | **Introduction of literature study** to be submitted through books and standards | Lecture and Discussion on the Methodology of | | **CO-2** | Understand spatial standards and user requirements for public museum spaces. |
| 3rd week | **Case Study Selection and Functional Analysis** - its impact on the design | Field Visit | Presentation of Literature Study (Progressive Marking) | **CO-2** | Identify functional relationships and circulation patterns in existing museum models. |
| 4th week | **Site introduction** - Discussion and a brief lecture on Site survey and Site analysis area calculation introduction. | On Site-Study (Physical Data, Neighborhood & Vegetation Mapping, Site Analysis- Sun/Wind/SWOT &Environmental Context) | **Review 1:** Literature and Case Study Presentation *(Using Smart Board)* | **CO-1** | Analyze site constraints (sun, wind, views) to determine the most suitable building placement. |
| 5th week | **Area/Space Programming-** Formation of Area Program and Requirements according to the analysis of the Literature and Case Studies done. | Studio Exercise | Discussion on Site Analysis & Area Programming (Progressive Marking) | **CO-2** | Organize complex public and private museum functions into a logical spatial hierarchy. |

| | | | | | |
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| | Correlation of all activities through the Proximity Chart, Bubble Diagram & Zoning with respect to Area Formulation. | | | | |
| 6TH week | **Concept Formulation & Conceptual Form Exploration** Preliminary Concept in the form of (Plans, 3D, Sketching, etc). Discussion on Concept, Bubble Diagram, Proximity & Zoning with respect to Area Formulation. (Clay/Thermocol/Play-Doh, etc) and Rough Sketches | Ideation Session/ Model Making | **Review 2:** Site Analysis & Area Programming | **CO-2** | Translate abstract ideas and cultural context into a cohesive architectural design intent. |
| 7th week | **Conceptual Plan** Single-line plans, sketches development. | Studio Exercise | **Review 3:** Conceptual Models and Concept Development | **CO-2** | Visualize and test volumetric forms in 3D to understand scale and spatial impact. |
| 8th week | **Single Line Drawings:** Preliminary Plans & Broad Elevations | Desk Crits | | **CO-2** | Draft preliminary design layouts that balance the conceptual form with functional flow. |
| 9th week | **Internal Review:** Critique of Spatial Flow & Museum Lighting | Peer Review | **Review 4:** Preliminary Review | **CO-1, CO-2** | Apply critical feedback to improve gallery lighting, visitor experience, and service accessibility. |
| 10th week | **Double Line Drawings:** Introduction to Structure Grid | Technical Lecture | | **CO-4** | Develop technically accurate plans and sections showing wall thickness and material textures. |
| 11th week | Technical Guidance on Column Layout, Beam Placement, and Building Services. | Studio Guidance | | **CO-4** | Integrate a structural system (columns/beams) that supports |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | the architectural form. |
| 12th week | **Refinement** -Detailed Site Plan, Sections & Hardscape Design | Desk Crits | **Review 5:** Intermediate Review | **CO-1** | Incorporate fire safety norms (NBC 2016), HVAC, and barrier-free design standards. |
| 13th week | Finalisation of Plan with respect to Site Block Model | Studio Guidance | (Progressive Marking) | **CO-1** | Develop technically accurate plans and incorporate suggestions. |
| 14th week | **Pre-Final Submission**: Plans, 2 Sections, 2 Elevations, Block 3D and Model | Presentation | **Review 6:** Prefinal Review | **CO-3, CO-5** | Communicate the complete design through a professional set of drawings and 3D visuals. |
| 15th week | Final Rendered, Sheet Composition & Material Specification | Studio Workshop | | **CO-5** | Synthesize all project data into high-quality presentation sheets and a detailed physical model. |
| 16th week | **Final Portfolio:** Full Drawing Set and Detailed Physical Model | Final Presentation | **Final Portfolio Submission** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Defend the architectural design solution before a jury, demonstrating professional competence. |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| REVIEW STAGES (6 REVIEWS) | **40 Marks** | |
| PHYSICAL MODEL | | |
| 3D VIEW | | |
| **FINAL INTERNAL JURY (Portfolio Submission)** | | 14th and 15th week, 2026 |
| **EXTERNAL REVIEW** | **60 Marks** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Chiara, J.D., Time Savers Standards for Building Type. New York: McGraw-Hill Professional Publishing, 1973
2) Chiara, J.D., Tiem Savers Standards for Interior Design and Space Planning, New York, McGraw-Hill, 2001
3) Ching, F., Architecture Form, Space and Order, New York: Van Nostrand Reinhold Staff, 1996
4) Harris, C.W., Time Savers Standards for Landscape Architecture, USA: McGraw-Hill, 1998
5) Rasmussen, S, E. (1977), Experiencing Architecture, Cambridge, Massachusetts: The MIT Press, 1997
6) Watson, D., Time Savers Standards for Architectural Design, New York: McGraw-Hill, 2005


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Pallabi Banerjee | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date: 9 January 2026 | Date 12.01.2026 | Date 12.01.26 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-2026**

| | |
|---|---|
| YEAR: **2026** | SEMESTER: **EVEN** |
| SUBJECT CODE: **AP-204** | SUBJECT TITLE: **BUILDING CONSTRUCTION -IV** |
| SUBJECT TYPE: **STUDIO** | CREDITS: **5** |
| INTERNAL ASSESSMENT: **40 Marks** | EXTERNAL ASSESSMENT (UE): **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS: **16 WEEKS- 80 HOURS** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- Learning Construction of Predominantly Steel Frame Buildings

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO1: Master Steel Frame Construction Principles-** To develop a comprehensive understanding of the construction logic, assembly, and structural behavior of predominantly steel-frame buildings.
- **CO2: Execute Technical Drawings for Sloping Roofs-** To gain proficiency in drafting precise plans, sections, and elevations for sloping roof structures using simple trusses in both wood and steel, including specialized roofing material details such as tiles, slate, and sheet materials.
- **CO3: Design and Detail Specialized Interior Elements-** To learn the technical design and construction detailing of mezzanine floors, steel staircases, false ceilings, and internal partitions to ensure functional and structural integrity.
- **CO4: Integrate Building Services and Joinery Details-** To develop detailed construction drawings for kitchen and toilet layouts, as well as the specialized joinery for steel doors, windows, and glazing systems.
- **CO5: Analyze External Site Development-** To understand and apply the principles of site planning by drawing comprehensive site plans that include external development details and context-responsive elements.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No. | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1: Master Steel Frame Construction Principles | 2 | 3 | 1 | - | 2 | 2 |
| CO2: Execute Technical Drawings for Sloping Roofs | 3 | 3 | 2 | - | 2 | - |
| CO3: Design and Detail Specialized Interior Elements | 3 | 3 | - | - | 1 | - |
| CO4: Integrate Building Services and Joinery Details | 2 | 3 | - | - | 2 | - |
| CO5: Analyze External Site Development | 3 | 2 | 2 | 1 | 2 | - |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1st week | Introduction to Syllabus: Structural Steel and its components | Lecture & Visual Presentation | | **CO1** | Understand the logic and structural behavior of steel-frame buildings. |
| 2nd week | Lecture: Details of sloping roofs using simple trusses in wood. | Drafting Exercise | **Sheet 1:** Wood Truss (10 Marks) | **CO2** | Proficiency in drafting precise plans and sections for wooden roof trusses. |
| 3rd week | Lecture: Details of sloping roofs using Steel truss - 6 M Span | Studio Exercise | **Sheet 2:** Steel Truss 6 M (10 Marks) | **CO2** | Ability to design and draft short-span steel roof structures. |
| 4th week | Lecture: Details of sloping roofs using Steel truss - 12 M Span | Technical Lecture & Drafting | **Sheet 3:** Steel Truss 12 M (10 Marks) | **CO2** | Mastery of large-span steel truss assembly and detailing. |
| 5th week | Lecture : Details of roofing materials: tiles, slate and sheeting materials | Material Study & Expert Session | **Report 1:** Roofing Materials (10) | **CO2** | Knowledge of specialized roofing material application and details. |
| 6TH week | Lecture: Details of Steel Doors & Windows | Studio Drafting | **Sheet 4:** Steel Windows (10 Marks) | **CO4** | Develop specialized joinery drawings for steel glazing systems. |
| 7th week | Lecture: Concept of Mezzanine Floor | Lecture & Discussion | **Report 2:** Mezzanine Floor (10) | **CO3** | Learn technical design and construction detailing of mezzanine floors. |

| | | | | | |
|---|---|---|---|---|---|
| 8th week | Lecture: Details of Steel staircase | Technical Drafting | **Sheet 5:** Steel Staircase (10 Marks) | **CO3** | Ensure structural integrity in the design of internal steel elements. |
| 9th week | Lecture: Toilet details | Studio Exercise | **Sheet 6:** Toilet Details (10 Marks) | **CO4** | Integrate building services into detailed toilet layouts. |
| 10th week | **MID-TERM EXAMINATION** | | | | |
| 11th week | Lecture: Kitchen details | Lecture and Discussion | **Sheet 7:** Kitchen Details (10 Marks) | **CO4** | Develop functional construction drawings for kitchen layouts. |
| 12th week | Continue sheet work of Kitchen Detail | Studio Drafting | | **CO4** | Refinement of service integration and joinery details. |
| 13th week | Lecture: Types of Partitions and Cabinets | Lecture and Drafting | **Sheet 8:** Partitions (10 Marks) | **CO3** | Design and detail internal partitions for functional integrity. |
| 14th week | Lecture: Types and Details of False Ceiling | Material Session | **Report 3:** False Ceiling (10 Marks) | **CO3** | Learn technical design and assembly of false ceiling systems. |
| 15th week | Revision of syllabus | Revision Lecture | | **CO5** | Understand site planning and context-responsive elements. |
| 16th week | Final Portfolio Submission | Portfolio Jury | **Final Submission** | **CO1-CO5** | Demonstrate a comprehensive understanding of all course objectives. |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Sheets (8 sheets) | **40 Marks** | |
| Report (3 reports) | | |
| **Final Internal Portfolio Presentation** | | 16th week, 2026 |
| **EXTERNAL REVIEW** | **60 Marks** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Berry, R., The Construction of Buildings Barry, R. Construction of Buildings, East West Press Pvt. Lyd., New Delhi, 1999
2) McKay, W.B., Building Construction (Vol I, II, III & IV), Orient Longman, London, 1988
3) Allen, Edward, Fundamentals of Building Construction: Materials and Methods, John Wiley & Sons, New York, 1999
4) Punamia B.C., Building Construction, Laxmi Publications (P) Ltd, New Delhi, 1988
5) Published material from HUDCO, CBRI (Roorkee), Development Alternatives, etc.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Pallabi Banerjee | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date: 10 January 2026 | Date 12.01.2026 | Date 12.01.2026 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-2026**

| | |
|---|---|
| YEAR: **2026** | SEMESTER: **EVEN** |
| SUBJECT CODE: **AP-206** | SUBJECT TITLE: **ARCHITECTURAL DRAWING IV** |
| SUBJECT TYPE: **STUDIO** | CREDITS: **3** |
| INTERNAL ASSESSMENT: **40 Marks** | EXTERNAL ASSESSMENT (UE): **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS: **16 WEEKS- 48 HOURS** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- To learn visualization, drawing, and rendering in three dimensions.
- To learn the application of relevant software.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO1: Master Technical Drafting Conventions -** To develop proficiency in using drafting instruments to create precise two-dimensional drawings (plans, sections, and elevations) following standard architectural graphic symbols and line weights.
- **CO2: Execute Complex 3D Projections-** To understand and apply the principles of descriptive geometry to construct accurate axonometric, isometric, and perspective projections that effectively communicate spatial depth and volume..
- **CO3: Integrate Structural and Material Detailing-** To learn the representation of various building materials and structural components through detailed technical drawings, ensuring clarity for construction.
- **CO4: Develop Sciography and Rendering Techniques-** To apply the principles of light, shade, and shadow (sciography) on 2D and 3D drawings to enhance the perception of form, depth, and texture in architectural presentations.
- **CO5: Bridge Manual and Digital Representation-** To synthesize traditional hand-drawing skills with basic digital drafting logic, preparing students to produce professional-grade portfolios that meet industry expectations.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No. | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1: Master technical drafting conventions | 2 | - | - | 3 | 1 | - |
| CO2: Execute complex 3D Projections | 3 | - | - | 3 | - | - |
| CO3: Integrate Structural and Material Detailing | - | 3 | - | 2 | 2 | - |
| CO4: Develop Sciography & Rendering Techniques | 3 | - | - | 3 | - | - |
| CO5: Bridge Manual & Digital Representation | - | - | - | 2 | 3 | - |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1st week | Introduction to Revit (Software Installation) | Interactive Session / Live Demo | | **CO-5** | Understand the interface and BIM logic compared to manual drafting. |
| 2nd week | Setting up levels and wall, adding Components | Lecture & Hands-on Exercise | | **CO-2, CO-3** | Ability to establish vertical spatial constraints and basic structural envelopes. |
| 3rd week | Working with basic tools and commands | Tool-specific Workshop | | CO-1, CO-5 | Proficiency in digital drafting commands to replace manual precision tools. |
| 4th week | Making floor, roof and ceiling | Demo & Laboratory Work | **Assignment 1:** Complete Enclosure (Floor/Roof/ Ceiling) (**5 Marks**) | CO-3 | Integration of horizontal structural components and material layering. |
| 5th week | Working with grid and columns | Expert Session / Lecture | | CO-3 | Developing a structural grid and understanding load-bearing representations. |
| 6TH week | To make a building project (small scale) in Revit Software | Project-Based Learning (PBL) | | CO-2, CO-5 | Synthesis of 3D modeling skills to create a comprehensive digital building prototype. |
| 7th week | Rendering of the project. | Visual Presentation/ Exercise | **Assignment 2:** Small Residence Modeling (**10 Marks**) | CO-4 | Application of light, texture, and materials to enhance architectural presentation. |

| | | | | | |
|---|---|---|---|---|---|
| 8th week | Introduction to 3Ds Max (Software Installation) | Software Installation Lab | | CO-5 | Transitioning to high-end digital visualization environments. |
| 9th week | Plan and Elevation Drafting | Drafting Exercise / Tutorial | | CO-1 | Master the production of 2D technical drawings with proper line weights from 3D models. |
| 10th week | **MID-TERM EXAMINATION** | | | | |
| 11th week | To prepare a walkthrough | Video Tutorial / Live Demo | **Assignment 3:** 30-second Interior Walkthrough **(5 Marks)** | **CO-2, CO-4** | Communicating spatial depth and volume through dynamic perspective movement. |
| 12th week | 3Ds Max Rendering | Advanced Rendering Workshop | | CO-4 | Advanced application of Sciography (shadows) and photorealistic textures. |
| 13th week | To learn basic vocabulary and commands in SketchUp | Tutorial | | CO-2, CO-5 | Ability to quickly iterate 3D forms using intuitive digital modeling logic. |
| 14th week | Basic Rendering | Hands-on Exercise | **Assignment 4:** SketchUp Exterior View Rendering **(5 Marks)** | CO-4 | Enhancing 3D forms with basic shadow casting and material representation. |
| 15th week | Doubt Clearing Session | Peer Review / 1-on-1 Feedback | | CO-1,CO-2, CO-3, CO-4, CO-5 | Refinement of technical drafting and digital representation techniques. |
| 16th week | Final Portfolio Submission | **Submission & Presentation** | **Assignment 5 :** Final Portfolio Submission **(15 Marks)** | CO-5 | Completion of a professional-grade portfolio bridging manual logic and digital execution. |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Rendering of a Project | **40 Marks** | |
| Walkthrough of a Project | | |
| **FINAL INTERNAL JURY (Portfolio Submission)** | | 15th and 16th week, 2026 |
| **EXTERNAL REVIEW** | **60 Marks** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Yee, R., Architectural Drawing: A visual compendium of types and methods, New Jersey, U.S: John Wiley and Sons, 2007
2) Ching, F.D, Architectural Graphics, New Jersey, U>S: John Wiley and Sons, 2009
3) Chopra Aidan, Town Laura, Pichereau Chris, Introduction to Google SketchUp, John Wiley & Sons, 2nd edition (19 April 2012)
4) Kirby Lance, Krygiel Eddy, Kim Marcus, Mastering Autodesk Revit, Wiley (2018)


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Pallabi Banerjee | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date: 9 January 2026 | Date 12.01.2026 | Date 12.01.2026 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-2026**

| | |
|---|---|
| YEAR: **2026** | SEMESTER: **EVEN (4th Semester)** |
| SUBJECT CODE: **AP-208** | SUBJECT TITLE: **ART APPRECIATION AND ARCHITECTURAL GRAPHICS II** |
| SUBJECT TYPE: **STUDIO** | CREDITS: **3** |
| INTERNAL ASSESSMENT: **40 Marks** | EXTERNAL ASSESSMENT (UE): **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS: **16 WEEKS- 48 HOURS** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- Learning Art as a medium of expression of ideas and learning various techniques of representation.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO1: Analyze Art as a Communication Tool** - To enable students to perceive and interpret art as a powerful medium for expressing complex architectural ideas and abstract concepts, fostering strong design sensibilities.
- **CO2: Master Diverse Graphic Techniques and Media** - To develop proficiency in various representation techniques—including collage, photomontage, printing, and stencils—to enhance the student's visual "toolkit" for architectural presentation.
- **CO3: Implement Abstract Interpretation in Design**- To encourage the transition from literal representation to abstract interpretation, allowing students to visualize and conceptualize environments through non-traditional artistic media.
- **CO4: Integrate Cultural and Aesthetic Theory**- To synthesize the study of art history and appreciation with practical studio work, ensuring that graphic representations are culturally informed and ethically grounded.
- **CO5: Bridge Traditional Media with Emerging Innovations**- To explore the intersection of traditional hand-based graphics with modern digital tools, fostering innovation and adaptability in architectural documentation.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No. | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1: Analyze Art as a Communication Tool | 2 | - | - | 3 | 1 | - |
| CO2: Master Diverse Graphic Techniques and Media | 3 | - | - | 3 | - | - |
| CO3: Implement Abstract Interpretation in Design | - | 3 | - | 2 | 2 | - |
| CO4: Integrate Cultural and Aesthetic Theory | 3 | - | - | 3 | - | - |

| | | | | | | |
|---|---|---|---|---|---|---|
| CO5: Bridge Traditional Media with Emerging Innovations | 2 | - | - | 2 | - | 3 |

**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1st week | **Introduction:** Art as a medium of expression | Lecture / Interactive Session | Journal entry on "Art in Architecture." | **CO-1** | Understand art as a communication tool. |
| 2nd week | Visual Perception: Exploring graphic techniques | Studio Exercise / Demo | | **CO-2** | Proficiency in basic graphic representation. |
| 3rd week | **Media Studies:** Introduction to Collage | Hands-on Studio Work | **Assignment 1:** Photomontage: **"The Urban Palimpsest" Concept:** Students select a photograph of a neglected urban site in Delhi and "overlay" a new architectural intervention using photomontage. **Task:** Use a mix of architectural textures and human-scale figures to show how art can transform a space. | **CO-2** | Ability to use mixed media for representation. |
| 4th week | **Abstract Interpretation:** Collage & Space | Expert Session / Studio | | **CO-3** | Conceptualize environments through abstraction. |
| 5th week | **Narrative Graphics:** Photomontage techniques | Hands-on Studio Work | | **CO-2** | Master advanced image composition techniques. |
| 6TH week | **Composition:** Balance and Proportion in Art | Case Study Analysis | **Assignment 2:** Printing: **"Materiality and Facade Rhythms"** Concept: Using block printing (linocut or potato blocks), students must create a repeating pattern that represents a building material. **Task:** Experiment with ink density and | **CO-4** | Apply aesthetic theory to visual work. |
| 7th week | **Texture & Depth:** Physical vs. Visual Texture | Studio Workshop | | **CO-1, CO-2** | Represent materiality through graphics |
| 8th week | **Cultural Context:** Indian Art Appreciation | Lecture / Slideshow | | **CO-4** | |
| 9th week | Introduction to Printing | Expert Session / Demo | | **CO-2, CO-5** | Understand traditional printing methods |

| | | | | | |
|---|---|---|---|---|---|
| | | | pressure to create "visual texture" on paper. | | |
| 10th week | **MID-TERM EXAMINATION** | | | | |
| 11th week | **Pattern & Rhythm:** Printing and Repetition | Studio Exercise | **Assignment 3:** "The wearable monument" **Concept:** To bridge the gap between architectural history and graphic representation. Students will translate the "spirit" of a specific architectural era or a landmark building into a 2D graphic composition suitable for a wearable medium (T-shirt or Tote Bag) **Task:** You are required to design and hand-paint a **T-shirt or Tote Bag** that represents a chosen architectural era (e.g., Gothic, Renaissance, Art Deco, Modernism, or Post-Modernism). The design should not be a literal "blue-print" but an **abstract interpretation** that combines architectural elements with artistic motifs. | **CO-5** | Bridge traditional media with design logic. |
| 12th week | **Masking:** Stencil-making techniques | Hands-on Studio Work | | **CO-2, CO-5** | Proficiency in precision masking/stenciling. |
| 13th week | **Layers:** Multi-layered stencil art | Workshop | | **CO-2** | Use layering to create complex visuals. |
| 14th week | **Synthesis:** Integrating Media & Doubt Clearing | Individual Critique | | **CO-1 to CO-5** | Finalize professional-grade art portfolio. |
| 15th week | **Pre-Final Submission:** Portfolio & Presentation | Pre- Final Jury | | **CO-1 to CO-5** | Refinement and Pre-final Submission |
| 16th week | **Final Submission:** Portfolio & Presentation | Final Jury | | **CO-1 to CO-5** | Grading of the final submission |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Continuous Internal Assignments | **40 Marks** | |
| Midterm Project | | |
| **Final Internal Portfolio Presentation** | | 15th and 16th week, 2026 |
| **EXTERNAL REVIEW** | **60 Marks** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Berger, John. Ways of Seeing, Penguin Books, London. 2006
2) Sinha, C.P. & Dwivedi, Appreciation of Indian Arts, Ideals and Images, Indian Art History Congress


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Pallabi Banerjee | Dean: | Director: |
| Signature | Signature: | Signature: |
| Date: 10 January 2026 | Date: 12/01/2026 | Date: 12/01/2026. |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-2026**

| | |
|---|---|
| YEAR: SECOND YEAR | SEMESTER: SEM -4, (EVEN SEMESTER) |
| SUBJECT CODE: AP-222 | SUBJECT TITLE: **THEORY OF STRUCTURES-IV** |
| SUBJECT TYPE: THEORY | CREDITS: **3** |
| INTERNAL ASSESSMENT: **Total 40 MARKS**<br>**(15 marks = Attendance)**<br>**(15 marks = Mid-term marks)**<br>**(10 marks = Assignments + Quiz)** | EXTERNAL ASSESSMENT (UE): **Total 60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | per week: L: 3 S: 0<br>per semester: L: 48 S: 0 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**
To understand the basic principles and applications of structural design with steel as per IS CODE.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- CO-1- Theory of Structures, deals with steel structural members, requires basic knowledge and principles of mechanics from Mechanics of Solids course and acts as a pre-requisite to the advanced courses on Structural Analysis and Design.
- CO-2- This course introduces study of steel structure design. In this student know about different types of joints in steel structure and steel roof truss
- CO-3-In this student, can analyze the response of various structural members under different loading conditions and design the same, satisfying the safety and serviceability conditions as per IS CODE.

**Program Objectives (B.Arch.): -**

**PO1. Develop Design Thinking and Practical Learning Skills**
To nurture strong design sensibilities through hands-on studio work, practical exercises, model making, site studies, and real-world problem-solving, enabling students to conceptualize, visualize, and design-built environments that are functional, aesthetic, and context-responsive.

**PO2. Build Strong Technical and Construction Knowledge**
To equip students with a sound understanding of building construction, materials, structures, and services (HVAC, water supply, lighting, acoustics, electrical systems) for designing safe, durable, and efficient buildings.

**PO3. Promote Sustainable and Climate-Responsive Design**
To enable learners to integrate environmental science, climatology, and sustainability principles into architectural solutions that are energy-efficient, environmentally responsible, and socially relevant.

**PO4. Integrate History, Theory, and Cultural Understanding**

To develop an understanding of architectural history, Architectural and other relevant theory, sociology, and conservation in order to encourage culturally informed, ethically grounded, and heritage-sensitive design practice.

**PO5. Apply Standards, Codes, and Professional Practice**

To prepare students for professional practice through knowledge of building bye-laws, codes, standards, safety regulations, project management, and documentation processes.

**PO6. Encourage Innovation and Emerging Technologies**

To introduce students to smart buildings, digital tools, building automation, and advanced construction techniques, fostering innovation and adaptability in a rapidly evolving architectural profession.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 2 | 3 | 3 | 1 | 3 | 3 |
| CO2 | 2 | 3 | 3 | 1 | 3 | 3 |
| CO3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Average | 2 | 2.66 | 2.66 | 1.33 | 2.66 | 2.66 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | **UNIT-I** | Introduction: Merits, demerits and application of steel structures. Structural properties and allowable stresses. | | | |
| 2 | | Standard Rolled steel sections, their designations and Applications, introduction to steel tables. | | | |
| 3 | | Theories of steel Design: Introduction to IS: 800, Working stress and limit state methods of design, | | | |
| 4 | | Basic concepts, merits and limitations of each method, present trends in design. | UNIT -1 ASSIGNMENT (10) MARKS QUIZ (10) MARKS | CO-1 CO-2 | Students are able to know theory about different steel sections and their properties. |
| 5 | **UNIT-II** | Design of steel compression members: Effect of buckling, concepts of slenderness ratios and effective lengths of steel compression members. | | | |
| 6 | | Allowable stresses in steel compression members use of tables for slenderness ratio VS Allowable stress in compression in steel. | | | |
| 7 | | Concepts of built-up steel column steel column sections, and lacings without design calculations. Steel tension members: single angle and double angle tension members, simple cases. | | | |
| 8 | | Design of steel beams: simple design of steel beams using M/Z concept. Concept of built-up steel beam sections and | UNIT -2 ASSIGNMENT (10) MARKS QUIZ | CO-1 CO-2 | Students are able to design steel sections like- Beam, column |

| | | | | | |
|---|---|---|---|---|---|
| | | plate girders without design calculations. | (10) MARKS | | and beam column joint. |
| 9 | **UNIT-III** | Connections in steel structures: Riveted, welded and bolted connections. | | | |
| 10 | | MID TERM EXAM | | | |
| 11 | | Merits of welded connections over riveted connections. | | | |
| 12 | | Modes of failure of riveted and welded connections. | | | |
| 13 | | Design of simple riveted and welded connections | UNIT -3 ASSIGNMENT (10) MARKS QUIZ (10) MARKS | CO-2 CO-3 | Students are able to know about different types joints of rivet and bolts. |
| 14 | **UNIT-IV** | Steel Roof Trusses: Functions, merits and applications of steel trusses. | | | |
| 15 | | Terminology and structural components. Design of members (no analysis). | | | |
| 16 | | Introduction to SP 38: handbook on steel roof trusses and its use in system with steel roof trusses. | UNIT -4 ASSIGNMENT (10) MARKS QUIZ (10) MARKS | CO-2 CO-3 | Students are able to know about detailed theoretical structural design of steel roof truss. |
| 17 | | Doubt session | | | |
| 18 | | Revision | | | |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Quiz | 10 MARKS PER UNIT | AFTER LAST LECTURE OF EACH UNIT |
| Assignment | 10 MARKS PER UNIT | AFTER LAST LECTURE OF EACH UNIT |
| Mid-term Review | TOTAL 50 MARKS | AFTER COMPLETING TWO UNITS |
| Case-Study | - | - |
| End Term Exam | - | - |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1)IS 800:2007 (IS CODE FOR GENERAL STEEL STRUCTURE DESIGN)

2)S S BHAVIKATII (DESIGN OF STEEL STRUCTURES)

3)A K JAIN (DESIGN OF STEEL STRUCTURES)


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name Er. Kapil Prabhat Verma | HOD / Dean/ Deputy Director | Director-Prof.Bijay Dash |
| Signature | Signature | Signature |
| Date-07/01/2026 | Date 08-01-2026 | Date 08-01-2026 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-2026**

| | |
|---|---|
| YEAR : **2026** | SEMESTER: **SEM - EVEN** |
| SUBJECT CODE: **AP-224** | SUBJECT TITLE: **HISTORY OF ARCHITECTURE -IV** |
| SUBJECT TYPE: **THEORY** | CREDITS: **2** |
| INTERNAL ASSESSMENT: **40 Marks** | EXTERNAL ASSESSMENT (UE): **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS: **16 WEEKS- 32 HOURS** | COURSE FACULTY : |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- To recognize the characteristics and historical significance of the Modern Movement in Architecture, Major movements, and Western Masters.
- To understand the so-called universal nature of modern International Architecture, Late and Post Modernism.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO1: Analyze the Evolution of Modernity:** To examine the transition from the Industrial Revolution to the Modern Movement, focusing on the impact of new materials on the architectural identity of the 19th and 20th centuries.
- **CO2: Evaluate Key Movements and Masters:** To critically explore and study the philosophies and iconic works of major architects and architectural movements, and their influence on shaping the way buildings look.
- **CO3: Contextualize Post-Modernism and Global Influences:** To understand the shift from universal modernism to Late and Post-Modernism, exploring the works of contemporary figures like Zaha Hadid and Rem Koolhaas, alongside the regional influences of Japanese masters like Kenzo Tange and Tadao Ando.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1: Analyze the Evolution of Modernity | 1 | 3 | 1 | 3 | 1 | 2 |
| CO2: Evaluate Key Movements and Masters | 3 | 2 | 1 | 3 | 1 | 2 |
| CO3: Contextualize Post-Modernism & Globalism | 2 | 1 | 2 | 3 | 2 | 3 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | **Unit 1:** Introduction to Modernity, Modernization, and Modernism | Lecture & Discussion | | CO-1 | **Week 1-3**: Students will be able to analyze the socio-technical origins of modern architecture by evaluating the impact of the Industrial Revolution and the introduction of iron, steel, and glass on architectural form. |
| 2 | **Unit 1:** Industrial Revolution: Impact of Iron, Steel, and Glass | Visual Presentation | | CO-1 | |
| 3 | **Unit 1:** Transformation in the age of modernization, Understanding of new materials, Architectural Characteristics of the Eiffel Tower and the Crystal Palace | Comparative Study | | CO-1 | |
| 4 | **Unit 2:** Neo-Classical influences and the Chicago School | Lecture & Exercise | | CO-2 | **Week 4-5**: Students will be able to differentiate between the aesthetics and philosophies of Neo-Classicism, the Chicago School, Art Nouveau, and the organic architecture of Frank Lloyd Wright. |
| 5 | **Unit 2:** Art Nouveau and Art Deco: Aesthetics and Form. Frank Lloyd Wright: Philosophy and Major Works | Visual Analysis | **Assignment 1**: Presentation on one of the modern materials used in architecture, give an example of a building built using the same material – 5 slides (5 marks) | CO-2 | |
| 6 | **Unit 3:** Beaux-Arts traditions and the rise of Le Corbusier and his notable works | Lecture & Exercise | | CO-2 | **Week 6-9**: Students will be able to criticize the "universal nature" of International Style by comparing it with regionalist and culturally specific approaches, such as the works of Kenzo |
| 7 | **Unit 3:** Walter Gropius and Mies Van Der Rohe: The Bauhaus Legacy | Lecture | | CO-2 | |

| | | | | | |
|---|---|---|---|---|---|
| 8 | **Unit 3:** Japanese Masters: Kenzo Tange and Tadao Ando: Design Philosophy and works | Case Study Analysis | | **CO-3** | Tange and Tadao Ando. |
| 9 | **Unit 3:** Modernism in Context: Universal Nature vs. Regionalism | Design Exercise | **Assignment 2-** The assignment is to makc a hand-drafted sheet in A2 (cxtend in length if reqd.) showcasing the timclinc of Architectural evolution starting from industrial revolution to 2000. (10 marks) | **CO-3** | |
| 10 | **Midterm Examination** | | | | |
| 11 | **Unit 4:** Introduction to Post-Modernism: Venturi and James Stirling | Theory Lecture | | **CO-3** | **Week 10-15**: Students will be able to synthesize the shift from Modernism to Post-Modernism, Neo-Rationalism, and Deconstructivism. |
| 12 | **Unit 4:** Neo-Rationalism: Focus on Aldo Rossi | Critical Reading | | **CO-3** | |
| 13 | **Unit 4:** Late Modernism: Peter Eisenman and Introduction to Deconstructivism | Theory Lecture | | **CO-3** | |
| 14 | **Unit 4:** Design Philosophy and Major Works of Zaha Hadid | Visual Presentation | | **CO-3** | |
| 15 | **Unit 4:** Contemporary Masters: Rem Koolhaas | Visual Presentation | **Assignment 3-** Sketch work in A3 Drawing File of all the units – (15 marks) | **CO-3** | |
| 16 | **Recap:** Synthesis of Modern to Post-Modern Evolution | Group Discussions and Presentations | | **CO-1, CO-2, CO-3** | |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignment** (50% weightage) | 40 Marks | |
| **Mid-term Review** (50% weightage) | | 10th Week |
| **End Term Exam** | 60 Marks | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


**1) Frampton K, Modern Architecture: Critical History, 4th e. Thames & Hudson, USA, 2007**

**2) Schulz CN, Meaning in Western Architecture, Rizzoli, New York, 1980**

**3) Jencks, The language of post-modern architecture, Academy Editions, London, 1991**

**4) Corbusier, L., Towards a New Architecture, Marino Fine Books, 2014**

**5) Venturi, Robert**


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Pallabi Banerjee | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date: 8 January 2026 | Date 8.01.26 | Date 8.01.26 |

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**B. Arch. PROGRAMME: TEACHING SCHEDULE: ACADEMIC YEAR : 2025-2026**

| | |
|---|---|
| YEAR : **2026** | SEMESTER : **SEM - IV (EVEN SEMESTER)** |
| SUBJECT CODE : **AP - 226** | SUBJECT TITLE : **BUILDING MATERIAL SCIENCES - IV** |
| SUBJECT TYPE: **THEORY** | CREDITS : **02** |
| INTERNAL ASSESSMENT : **40 Marks** | EXTERNAL ASSESSMENT (UE) : **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS : **32 hours** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

The aim is to understand commonly used building materials, their general use in the building industry and to provide a base for environmentally responsible construction.. The course also introduces basic techniques of extraction and processing of materials for building industry and the concepts and techniques of evaluating their impact on the environment and ecology.

**COURSE OBJECTIVES (CO)-**

- **CO1.** Understand the properties, manufacturing processes, and applications of ferrous and non-ferrous metals used in buildings, and evaluate their suitability for different architectural contexts.
  *(Aligned with PO2, PO5)*
- **CO2.** Analyze various protective coatings and surface treatments for metals with respect to durability, aesthetics, corrosion resistance, and environmental impact.
  *(Aligned with PO2, PO3, PO6)*
- **CO3.** Examine ceramic-based building materials such as tiles, artificial stones, cement tiles, and pavers, including their manufacture, performance characteristics, and architectural applications.
  *(Aligned with PO2, PO1)*
- **CO4.** Evaluate exterior paint systems and timber protection methods based on climate responsiveness, life-cycle performance, and sustainability principles.
  *(Aligned with PO3, PO2)*
- **CO5.** Apply environmental principles such as reduce–reuse–recycle, embodied energy, and life-cycle assessment in material selection for responsible architectural practice.
  *(Aligned with PO3, PO6)*
- **CO6.** Develop informed material choices integrating technical knowledge, sustainability, codes, and design intent through analytical and experiential learning.
  *(Aligned with PO1, PO5)*

**CO-PO MAPPING**

**(3 point scale; 1=Aware/Basic knowledge; 2=Average/Intermediate: 3=Advanced/Strong correlation)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 1 | 3 | - | - | 2 | - |
| CO2 | - | 3 | 2 | - | 1 | 2 |
| CO3 | 2 | 3 | - | - | - | - |
| CO4 | 1 | 2 | 3 | - | - | 1 |
| CO5 | - | 1 | 3 | - | - | 2 |
| CO6 | 3 | 2 | 2 | - | 2 | 2 |
| Average | 1.16 | 2.33 | 1.66 | 0 | 0.83 | 1.16 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC / CONTENT | TEACHING METHODOLOGY | ASSIGNMENT | COs Achieved | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | 1. Introduction to Building Material Science IV.<br>2. Role of metals in contemporary architecture<br>3. Classification: ferrous vs non-ferrous metals.<br>4. Environmental impact of metal extraction. | LECTURE | | CO1 | 1. Explain the role and importance of metals in contemporary building construction.<br>2. Classify building metals into ferrous and non-ferrous categories.<br>3. Describe the basic environmental impacts of metal extraction& processing. |
| 2 | 1. Cast iron, wrought iron: properties, uses, failures.<br>2. Structural and architectural applications.<br>3. Case examples from heritage and modern buildings. | LECTURE | | CO1 | 1. Identify properties and limitations of cast iron and wrought iron.<br>2. Compare historical and modern applications of iron in buildings.<br>3. Analyze failures and suitability of iron-based materials in architectural contexts. |
| 3 | 1. Steel: constituents, mechanical properties<br>2. Stainless steel: grades, corrosion resistance<br>3. Use of copper and bronze in buildings | LECTURE | | CO1 | 1. Explain the composition and mechanical properties of steel and stainless steel.<br>2. Differentiate between grades of stainless steel and their applications.<br>3. Evaluate the use of copper and bronze for architectural and service elements. |
| 4 | 1. Hot rolled vs cold formed sections<br>2. Sheets, sections, fabrication methods<br>3. Architectural detailing and connections | LECTURE | | CO1 | 1. Distinguish between hot rolled and cold-formed steel sections.<br>2. Interpret typical steel sections used in buildings.<br>3. Apply basic understanding of fabrication methods to architectural detailing. |
| 5 | 1. Corrosion: causes, types, and prevention<br>2. Paint systems for metals<br>3. Galvanization and chrome plating | LECTURE | | CO1, CO2, CO4 | 1. Identify causes and types of corrosion in metals.<br>2. Explain methods of corrosion prevention in buildings.<br>3. Compare paint systems and galvanization for metal protection. |
| 6 | 1. Anodization and powder coating<br>2. Application processes and performance comparison<br>3. Sustainability and durability assessment | LECTURE | | CO2 | 1. Describe anodization, chrome plating, and powder coating processes.<br>2. Evaluate coating systems based on durability, aesthetics, and environmental impact. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | 3. Select appropriate coating systems for different climatic conditions. |
| 7 | 1. Ceramic materials in architecture<br>2. Clay products and ceramic wall & floor tiles<br>3. Manufacturing processes | **LECTURE** | | **CO3** | 1. Explain the manufacturing process of ceramic wall and floor tiles.<br>2. Identify material properties affecting performance and durability.<br>3. Relate ceramic material characteristics to architectural applications. |
| 8 | 1. Cement tiles and artificial stones<br>2. Pavers and outdoor applications<br>3. Slip resistance, wear, and durability | **LECTURE** | | **CO3** | 1. Differentiate between cement tiles, artificial stones, and pavers.<br>2. Assess performance parameters such as wear resistance and slip resistance.<br>3. Recommend suitable ceramic materials for indoor and outdoor use. |
| 9 | 1. Installation methods and detailing<br>2. Comparative analysis: natural vs artificial materials<br>3. Case studies (residential, commercial, public spaces) | **LECTURE** | | **CO3** | 1. Explain installation techniques for ceramic and artificial stone materials.<br>2. Compare natural stone and artificial alternatives based on performance and cost.<br>3. Analyze case studies to justify material selection decisions. |
| 10 | 1. Exterior paints: cement-based paints<br>2. Acrylic and textured paints<br>3. Climatic considerations | **LECTURE** | | **CO4** | 1. Identify different types of exterior paints used in buildings.<br>2. Analyze suitability of cement-based, acrylic, and textured paints.<br>3. Select paint systems based on climate and building function. |
| 11 | **MID TERM EXAMINATIONS** | | | | |
| 12 | 1. Timber in outdoor conditions<br>2. Timber protection systems<br>3. Paints, preservatives, and finishes | **LECTURE** | | **CO4** | 1. Explain deterioration mechanisms in exposed timber.<br>2. Identify timber protection methods and finishes.<br>3. Propose suitable timber protection strategies for outdoor applications. |
| 13 | 1. Environmental principles in materials<br>2. Reduce, reuse, recycle<br>3. Embodied energy and carbon footprint | **LECTURE** | | **CO5, CO6** | 1. Explain principles of reduce, reuse, and recycle in building materials.<br>2. Analyze embodied energy and carbon footprint of materials. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | 3. Recognize the role of material choice in sustainable architecture. |
| 14 | 1. Life-cycle assessment of building materials<br>2. Sustainable material selection strategies<br>3. Emerging eco-friendly coatings and materials | **LECTURE** | | **CO5, CO6** | 1. Apply life-cycle thinking to evaluate building materials.<br>2. Compare conventional and eco-friendly material alternatives.<br>3. Integrate sustainability parameters into material selection decisions. |
| 15 | 1. Integrated material selection exercises<br>2. Discussion-based learning and student presentations<br>3. Course revision and reflection | **LECTURE** | | **CO6** | 1. Integrate technical, environmental, and aesthetic criteria in material selection.<br>2. Present informed material choices through discussions or presentations.<br>3. Reflect on responsible material usage in professional architectural practice. |
| 16 | **FINAL SUBMISSION/ MARK COMPILATION/ DOUBT CLEARING** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignments Score** | **30 %** | **After Every Unit** |
| **Mid-term Assessments** | **50 %** | **Around 10th Week** |
| **Attendance Score** | **20 %** | **End of Semester** |

**SUGGESTED BOOKS/READINGS:**


1. Merritt S. Frederick, Building design and Construction handbook, MC Graw hill, 2000.
2. Soni Kumar Saurabh, Building Materials & Construction, S.K Kataria and Sons
3. Duggal S.K, Building Materials (third revised edition), New Age International(P) Limited Publishers, 2008.
4. Kumar, S.K., "Building Construction", 19th Ed., Standard Publishers Distributors, 2001.
5. Allen, E. and Iano, J., "Fundamentals of Building Construction: Materials and Methods", Wiley, 2004.
6. Mehta, M., Scarborough, W. and Armpriest, Diane, "Building Construction: Principles, Materials and Systems", Pearson Prentice Hall, 2008.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty: **Ar. Divesh Wadhwa** | Dean: **Ar. Praveen Arora** | Director: **Prof. Bijay Dash** |
| Signature | Signature | Signature |
| Date: **07-01-2026** | Date: 08/01/2026 | Date: 08/01/26 |

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## B. Arch. PROGRAMME; TEACHING SCHEDULE; ACADEMIC YEAR : 2025-2026

| | |
|---|---|
| YEAR : **2026** | SEMESTER : **SEM - IV (EVEN SEMESTER)** |
| SUBJECT CODE : **AP - 228** | SUBJECT TITLE : **LIGHTING AND ACOUSTICS** |
| SUBJECT TYPE: **THEORY** | CREDITS : **02** |
| INTERNAL ASSESSMENT : **40 Marks** | EXTERNAL ASSESSMENT (UE) : **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS : **32 hours** | |

### GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-

To learn the fundamentals of lighting, lighting design and fundamentals of acoustics and principles in designing various built environments.

### COURSE OBJECTIVES (CO)-

- **CO1.** To introduce students to the **fundamental principles of natural and artificial lighting**, photometry, and daylighting design for architectural spaces.
  *(PO1, PO2, PO3)*
- **CO2.** To develop the ability to **apply lighting design strategies** using daylight, artificial light sources, and luminaires for functional, aesthetic, and energy-efficient environments.
  *(PO1, PO2, PO3, PO6)*
- **CO3.** To impart a foundational understanding of **architectural acoustics**, including sound behavior, noise control, and acoustic comfort in built spaces.
  *(PO2, PO5)*
- **CO4.** To enable students to **analyze and design acoustically appropriate spaces** such as auditoriums, lecture halls, and studios using basic calculations and material strategies.
  *(PO1, PO2, PO5)*
- **CO5.** To sensitize students towards **sustainable, code-compliant, and context-responsive lighting and acoustic solutions** in architectural design.
  *(PO3, PO5, PO6)*

### CO-PO MAPPING

**(3 point scale; 1=Aware/Basic knowledge; 2=Average/Intermediate: 3=Advanced/Strong correlation)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 3 | 2 | - | - | - |
| CO2 | 3 | 2 | 3 | - | - | 3 |
| CO3 | - | 3 | - | - | 3 | - |
| CO4 | 2 | 2 | - | - | 3 | - |
| CO5 | - | - | 3 | - | 2 | 3 |
| Average | 1.6 | 2 | 1.6 | 0 | 1.6 | 1.2 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC / CONTENT | TEACHING METHODOLOGY | ASSIGNMENT | COs Achieved | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | 1. Introduction to Lighting in Architecture<br>2. Visual comfort, human eye & perception<br>3. Photometric quantities: lumen, lux, candela, luminance<br>4. Lighting standards overview (NBC, IS codes – introductory) | **LECTURE** | | **CO1** | 1. Explain the role of lighting in architectural design and human comfort.<br>2. Define basic photometric quantities such as lumen, lux, candela, and luminance.<br>3. Identify visual comfort parameters relevant to architectural spaces. |
| 2 | 1. Solar radiation & visible light<br>2. Natural light vs artificial light<br>3. Color temperature, CRI<br>4. Climate-responsive daylighting principles | **LECTURE** | | **CO1** | 1. Differentiate between natural and artificial lighting in built environments.<br>2. Explain the relationship between solar radiation, visible light, and human perception.<br>3. Interpret the significance of color temperature and CRI in architectural lighting. |
| 3 | 1. Daylighting concepts<br>2. Daylight Factor, Penetration Factor<br>3. Design of sky components<br>4. Orientation & fenestration strategies | **LECTURE** | | **CO1, CO2** | 1. Describe the principles of daylighting in relation to climate and orientation.<br>2. Calculate and interpret Daylight Factor and Penetration Factor.<br>3. Analyze the impact of fenestration design on daylight performance. |
| 4 | 1. Methods & techniques of daylighting.<br>2. Glare: causes, types, and control<br>3. Case studies of daylight-responsive buildings. | **LECTURE** | Short Daylight Analysis Exercise | **CO1, CO2** | 1. Apply different daylighting strategies for various building types.<br>2. Identify causes and types of glare and propose basic glare control measures.<br>3. Evaluate real buildings for daylight quality using observation and sketches. |
| 5 | 1. Artificial lighting principles<br>2. Types of electric light sources (LED, CFL, halogen, solar)<br>3. Lamp characteristics & efficiency | **LECTURE** | | **CO2** | 1. Classify electric light sources based on type, efficiency, and application.<br>2. Explain working principles of LED, CFL, and solar lighting systems.<br>3. Compare light sources based on energy consumption and sustainability. |
| 6 | 1. Types of luminaires: decorative, commercial, industrial, outdoor | **LECTURE** | | **CO2** | 1. Identify different types of luminaires and their architectural applications. |

| | | | | | |
|---|---|---|---|---|---|
| | 2. Performance criteria & luminaire selection<br>3. Integration of daylight and artificial lighting | | | | 2. Select appropriate luminaires based on space function and performance criteria.<br>3. Explain strategies for integrating artificial lighting with daylight. |
| 7 | 1. Lighting design strategies for interiors & exteriors<br>2. Lumen method (introductory calculation)<br>3. Smart lighting, automatic controls & sensors<br>4. Energy-efficient lighting practices | **LECTURE** | | **CO2** | 1. Apply basic lighting design strategies for interior and exterior spaces.<br>2. Perform introductory illumination calculations using the lumen method.<br>3. Explain the role of smart lighting, sensors, and automatic controls in energy efficiency. |
| 8 | 1. Nature of sound & wave theory<br>2. Sound power, sound intensity, decibel scale<br>3. Sound pressure level & frequency bands | **LECTURE** | | **CO3** | 1. Explain sound as a wave phenomenon and its relevance in architecture.<br>2. Define sound power, sound intensity, sound pressure level, and decibel scale.<br>3. Interpret frequency ranges and their impact on human hearing. |
| 9 | 1. Sound behavior in enclosed spaces<br>2. Reflection, absorption, transmission<br>3. Reverberation time (RT), echo, flutter echo | **LECTURE** | | **CO3** | 1. Describe reflection, absorption, and transmission of sound in buildings.<br>2. Analyze sound behavior in enclosed spaces such as classrooms and halls.<br>3. Identify acoustic defects such as echoes and flutter echoes. |
| 10 | 1. Calculation of RT (Sabine's formula – basic level)<br>2. Acoustic requirements for lecture halls, music rooms, studios<br>3. Case examples | **LECTURE** | | **CO3, CO4** | 1. Explain the concept and significance of reverberation time (RT).<br>2. Calculate RT using Sabine's formula for simple spaces.<br>3. Relate RT requirements to different building functions. |
| 11 | **MID TERM EXAMINATION** | | | | |
| 12 | 1. Noise: sources & classification<br>2. Noise standards & permissible limits<br>3. Impact of noise on health and performance | **LECTURE** | | **CO4** | 1. Define noise and classify its sources in built environment.<br>2. Explain the impact of noise on health and performance.<br>3. Identify permissible noise limits as per basic standards and codes. |
| 13 | 1. Noise control strategies<br>2. Absorption, insulation, transmission loss<br>3. Soundproofing techniques | **LECTURE** | | **CO4** | 1. Differentiate between absorption, insulation, and soundproofing.<br>2. Apply basic noise control strategies to architectural spaces. |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | 3. Propose design-level solutions for reducing noise transmission. |
| 14 | 1. Acoustic materials & applications<br>2. Wall, ceiling & floor treatments<br>3. Design considerations for auditoriums & seminar halls | **LECTURE** | | **CO4, CO5** | 1. Identify commonly used acoustic materials and their properties.<br>2. Select appropriate wall, ceiling, and floor treatments for different spaces.<br>3. Apply acoustic design considerations to auditorium and seminar halls. |
| 15 | 1. Integrated lighting & acoustics in architectural design | **LECTURE** | | **CO5** | 1. Integrate lighting and acoustic principles into architectural design solutions.<br>2. Critically evaluate spaces for combined visual and acoustic comfort.<br>3. Reflect on the role of lighting and acoustics in sustainable and user-centric design. |
| 16 | **FINAL SUBMISSION/ MARK COMPILATION/ DOUBT CLEARING** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignments Score** | **30 %** | **After Every Unit** |
| **Mid-term Assessments** | **50 %** | **Around 10th Week** |
| **Attendance Score** | **20 %** | **End of Semester** |

**SUGGESTED BOOKS/READINGS:**


1. Karov Mende, Designing with Light & Shadows published by Images.
2. Peter Grevenisen, Sound Scapes- Architecture for Sound & Vision published by Birkhauser.
3. Joseph De Chiara, Time Savers Standards for Interior Design & Space Planning published by Mcgraw Hill.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty: **Ar. Divesh Wadhwa** | Dean: **Ar. Praveen Arora** | Director: **Prof. Bijay Dash** |
| Signature | Signature | Signature |
| Date: **08-01-2026** | Date: 12/01/2026 | Date: 12/01/2026 |

# MBS COLLEGE

**Affiliated to GGSIPU and Approved by CoA & AICTE**
**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

**B. Arch. PROGRAMME; TEACHING SCHEDULE; ACADEMIC YEAR : 2025-2026**

| | | |
|---|---|---|
| YEAR : **2026** | CREDITS : **02** | SEMESTER : **SEM - IV (EVEN SEMESTER)** |
| SUBJECT CODE : **AP - 230** | | SUBJECT TITLE : **PSYCHOLOGY OF SPATIAL RELATIONSHIPS** |
| SUBJECT TYPE: **THEORY** | | |
| INTERNAL ASSESSMENT : **40 Marks** | | EXTERNAL ASSESSMENT (UE) : **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS : **32 hours** | | |

## GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-

The aim of this course is to provide undergraduate design students with base level exposure to the various theoretical approaches that are clustered around the following questions:

1. How is the built form an extension of the individual? How is the spatial dimension of human behavior related to mental processes and conceptions of the self?
2. What is the meaning of form? How do built forms express and represent aspects of culture?
3. How do cultures produce forms and the forms reproduce society? What roles do history and social institutions play in generating the built environment? What is the relationship between.

## COURSE OBJECTIVES (CO)-

- **CO1.** Understand the psychological relationship between human behavior, perception, and the built environment, with emphasis on space, form, and meaning.
- **CO2.** Examine how culture, society, history, and rituals influence spatial organization and architectural form.
- **CO3.** Analyze dwelling patterns, neighborhood structures, and public spaces through social, symbolic, and proxemic lenses.
- **CO4.** Interpret cultural identity, diversity, and universals in architecture using interdisciplinary theoretical frameworks.
- **CO5.** Apply theories of environmental perception and phenomenology to critically evaluate built environments.
- **CO6.** Translate psychological and socio-cultural insights into design thinking applicable to architectural studios and real-world contexts.

## CO-PO MAPPING

**(3 point scale; 1=Aware/Basic knowledge; 2=Average/Intermediate: 3=Advanced/Strong correlation)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 2 | - | - | 2 | - | - |
| CO2 | 2 | - | - | 3 | - | - |
| CO3 | 3 | - | - | 2 | - | - |
| CO4 | 3 | - | 2 | 3 | - | - |
| CO5 | 2 | - | 2 | 3 | - | - |
| CO6 | 3 | - | 2 | 2 | - | 2 |
| Average | 2.5 | 0 | 1 | 2.5 | 0 | 0.33 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC / CONTENT | TEACHING METHODOLOGY | ASSIGNMENT | COs Achieved | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | 1. Introduction to Environmental Psychology<br>2. Human behavior, mind, self, and spatial cognition | **LECTURE** | | **CO1** | Students will be able to **define environmental psychology** and explain the relationship between human behavior, mental processes, and spatial environments. |
| 2 | 1. Built Environment & Human Experience<br>2. Perception, memory, and meaning in architecture | **LECTURE** | | **CO1** | Students will be able to **interpret how perception, cognition, and memory influence human experience of architectural spaces**. |
| 3 | 1. Household Studies & Place Identity<br>2. Place attachment, home as psychological territory | **LECTURE** | | **CO1, CO2** | Students will be able to **analyze domestic spaces** in terms of place attachment, identity, and emotional bonding with environments. |
| 4 | 1. Ethno-archaeology & Social Organization<br>2. Evolution of dwellings and settlements | **LECTURE** | | **CO1, CO2, CO3** | Students will be able to **explain how early societies and civilizations shaped dwelling forms** based on social structure and cultural practices. |
| 5 | 1. Privacy, Territoriality & Crowding<br>2. Neighborhood space, thresholds, and boundaries | **LECTURE** | | **CO2, CO3** | Students will be able to **evaluate residential and neighborhood spaces** using concepts of privacy gradients, territorial behavior, and crowding. |
| 6 | 1. Culture & Built Environment<br>2. Material and non-material culture; artifacts & architecture | **LECTURE** | | **CO2, CO3** | Students will be able to **differentiate between material and non-material culture** and relate these to architectural artifacts and built forms. |
| 7 | 1. Culture as Adaptive System<br>2. Norms, mores, values, laws, folkways | **LECTURE** | | **CO2, CO3, CO4** | Students will be able to **interpret norms, values, folkways, and laws as spatial regulators** influencing architectural organization. |
| 8 | 1. Cultural Identity & Diversity<br>2. Ethnocentrism, cultural universals, symbolism | **LECTURE** | | **CO3, CO4** | Students will be able to **critically assess cultural identity, diversity, and ethnocentrism** in the context of architectural expression. |
| 9 | 1. Social Symbolic Accents<br>2. Architecture as language; power, hierarchy, meaning | **LECTURE** | | **CO3, CO4, CO5** | Students will be able to **decode symbolic meanings in architecture** related to power, hierarchy, belief systems, and collective memory. |
| 10 | 1. Theory of Proxemics<br>2. Personal, social, public space and spatial behavior | **LECTURE** | | **CO4, CO5** | Students will be able to **apply proxemic theory** to analyze interpersonal distances and spatial behavior in public and private environments. |

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| | | | | | |
|---|---|---|---|---|---|
| 11 | **MID TERM EXAMINATION** | | | | |
| 12 | 1. Structuralism & Environmental Perception<br>2. Learning processes, cognition, spatial understanding | **LECTURE** | | **CO4, CO5** | Students will be able to **explain how human learning processes and cognition shape spatial understanding and environmental perception**. |
| 13 | 1. Metaphorical & Ritualistic Approaches<br>2. Built form, ritual, sacred space | **LECTURE** | | **CO5** | Students will be able to **interpret architectural spaces as metaphors and ritual settings**, particularly in religious and ceremonial contexts. |
| 14 | 1. Phenomenological Perspectives<br>2. Sense of place, experience, atmosphere | **LECTURE** | | **CO5, CO6** | Students will be able to **analyze architectural spaces phenomenologically**, focusing on sensory experience, atmosphere, and sense of place. |
| 15 | 1. Contemporary Applications & Case Discussions<br>Linking theory to architectural design studios | **LECTURE** | | **CO6** | Students will be able to **integrate psychological and cultural theories into architectural design thinking and studio-based problem solving**. |
| 16 | **FINAL SUBMISSION/ MARK COMPILATION/ DOUBT CLEARING** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignments Score** | **30 %** | **After Every Unit** |
| **Mid-term Assessments** | **50 %** | **Around 10th Week** |
| **Attendance Score** | **20 %** | **End of Semester** |

**SUGGESTED BOOKS/READINGS:**


1. Lévi-Strauss, Claude., Tristes Tropiques Penguin Books, London 1974.
2. Porteous, John Dougls; Environment Behaviour: Planning and Everyday Urban Life, Addison Wesley, 1977.
3. Hall, T. Edward, The Hidden dimension, Anchor books edition, USA, 1969.
4. Rapport, Amos, Human Aspects of Urban Form, Pergammon Press, New York, 1977.
5. Rapport, Amos, Hu House form and Culture, Aspects of Urban Form, Pergammon Press, New York, 1977.
6. Lynch, , Kevin; The Image of the City, Joint Centre Publication, USA, 1960.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty: **Ar. Divesh Wadhwa** | Dean: **Ar. Praveen Arora** | Director: **Prof. Bijay Dash** |
| Signature | Signature | Signature |
| Date: **08-01-2026** | Date: 12/01/2026 | Date: 12/01/2026 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : THIRD YEAR | SEMESTER: SEM – VI (EVEN SEMESTER) |
| SUBJECT CODE: AP-302 | SUBJECT TITLE: ARCHITECTURAL DESIGN- VI |
| SUBJECT TYPE: PRACTICAL | CREDITS: 10 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 160 Hours |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- . To learn to design non-fully residential large multi-building campuses & site planning including buildings clusters and landscapes.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO-1-** To design a convention centre building capable of accommodating large-scale national and international conferences, conventions, exhibitions, and summits with clearly organized and flexible spatial arrangements.
- **CO-2-** To respond to the strategic urban context of Dwarka, Delhi, by ensuring efficient connectivity, accessibility, and integration with surrounding infrastructure and public transport systems.
- **CO-3-** To create an architectural form that supports economic activity, by facilitating tourism, hospitality, trade promotion, and employment generation through well-planned facilities and services.
- **CO-4 -** To ensure environmental sustainability through climate-responsive design, energy efficiency, and responsible use of materials.
- **CO-5-** To reflect the cultural and urban context of the site through appropriate architectural expression and landscape design.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | 1 | 3 | 3 | 3 |
| CO2 | 1 | - | 1 | 1 | 3 | 2 |
| CO3 | 3 | 3 | 3 | 2 | 3 | 2 |
| CO4 | 1 | 3 | 3 | 1 | 1 | 3 |
| CO5 | 1 | 2 | 3 | 1 | - | 3 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| Week-1<br><br>19.1.26<br>to<br>23.1.26 | **Introduction to the Design Problem** | The faculty will give an Introductory lecture on Design of a Convention Centre, project vision, deliverables, timelines etc. Discussion will be conducted on the all components and their norms, building regulations etc. | Data collection of all the components of the convention centre for literature study and identification of case studies. | **CO-1, CO-2** | To Understand functional requirements of a convention centre, including conferences, exhibitions, seminars, banquets, and support spaces. |
| Week-2<br><br>26.1.26<br>to<br>30.1.26 | **Literature study** | Faculty will review the conducted Literature studies by the students. | Literature study review **(100 Marks)** | **CO-1** | Students will be able to interpret and apply applicable planning norms, building bye-laws, and regulatory standards to design a compliant, safe, and functional convention centre. |
| Week-3<br><br>2.2.26<br>to<br>6.2.26 | **Case studies** | Faculty will demonstrate the methodology of conducting a case study. | Detailed spatial and area analysis of chosen case studies,<br>Case study review **(100 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | To enables students to critically understand planning, structure, services, sustainability, and design strategies of convention centres and apply these insights effectively in architectural design. |
| Week-4<br><br>9.2.26<br>to<br>13.2.26 | **Case studies** | Faculty will review the conducted case studies by the students. | Case study review **(100 Marks)** | | |
| Week-5 | Site Visit & Site Analysis | Faculty will conduct a site visit to introduce | Site analysis review as per technique demonstrated. **(100 Marks)** | **CO-1, CO-2, CO-3,** | Students will be able to critically analyse the site considering |

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| 16.2.26 to 20.2.26 | | students to the project site and demonstrate site analysis focusing on transport, built form, land use, regulations, and pedestrian networks, followed by discussion on merits, demerits, and project requirements. | | | physical, contextual, climatic, regulatory, and accessibility factors and synthesize site insights into concept-driven architectural design decisions. |
| Week-6<br><br>23.2.26 to 27.2.26 | Concept development | The faculty will demonstrate the correlation of site analysis and concept. Discussion will be held on evolution of concept. | Submission of Site Analysis, Concept development and Site Zoning<br>**(100 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to derive and justify an architectural concept from site analysis and demonstrate its systematic evolution into a coherent design proposal. |
| Week-7<br><br>2.3.26 to 6.3.26 | Design development | The faculty will give a lecture on development of plans, role of concept, use of structural and incorporation of norms in the development of floor plans, need of visualization of basement and first floor while working out ground floor plan. | Design Development Discussion- Site plan and Floor Plans<br>**(Progressive Marking out of 25 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to develop coherent floor plans by integrating design concepts, structural grids, applicable norms, and multi-level spatial visualization in the convention centre planning. |
| Week-8<br><br>9.3.26 to 13.3.26 | Design development | One to one interaction-based discussion with students. | Design Development Discussion- Site plan and Floor Plan<br>**(Progressive Marking out of 25 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to refine and enhance their design solutions through personalized feedback, critical discussion, and iterative problem- |

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| | | | | | solving during one-to-one interactions. |
| Week-9<br><br>16.3.26 to 20.3.26 | **Design development Review Stage- I** | Submission to be done by students. Review will be taken by the faculty. | **DESIGN DEVELOPMENT MAJOR REVIEW**<br>1. Concept and Zoning<br>2. Site plan- Showing Vehicular and pedestrian movement, landscaping and Roof plan<br>3. All floor plans,<br>4. Elevations and Sections<br>5. Block Model<br><br>**(300 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to improve and refine their designs by understanding and applying feedback from faculty during design reviews. |
| Week-10 | **Mid term Examination** (23.3.26 to 27.3.26) | | | | |
| Week-11<br><br>30.3.26 to 3.4.26 | Design Development & Discussion | Crits and one to one discussion by the faculty. Lecture on auditorium design. | Progressive Marking out of **25 Marks** | **CO-1, CO-2** | Students will be able to apply principles of auditorium design, including spatial planning, acoustics, seating, and safety norms, in their architectural design. |
| Week-12<br><br>6.4.26 to 10.4.26 | Design Development & Discussion | Crits and one to one discussion by the faculty. Lecture on site planning & landscaping. | - | **CO-1, CO-4, CO-5** | Students will be able to design functional and aesthetically pleasing site layouts by applying principles of site planning, circulation, zoning, and landscaping. |
| Week-13<br><br>13.4.26 to 17.4.26 | Design Development & Discussion | Crits and one to one discussion by the faculty. Lecture on Building services | Progressive Marking out of **25 Marks** | **CO-1, CO-3, CO-4** | Students will be able to understand and integrate essential building services—such as electrical, plumbing, HVAC, and fire safety—into their architectural designs for functional and safe buildings |

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| Week-14<br><br>20.4.26 to 24.4.26 | **Pre Final Submission Stage-2** | Submission to be done by students. Review by one-to-one interaction will be taken by the faculty. | **PRE-FINAL DESIGN**<br>1. Concept and Zoning<br>2. Site plan- Inclusive of all ground floor plan of all built blocks, entrance and exit of all major blocks, entry-exits into the site, entry- exits of the basement, development of landscape, location of services etc.<br>3. All floor plans including basement<br>4. All side Elevations and minimum 4 sections. Sections through basement, toilets and staircase are compulsory.<br>5. Site sections<br>6. Block Model<br>**(500 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to critically assess and refine their design projects, ensuring coherence, functionality, and adherence to project requirements before final submission. |
| Week-15<br><br>27.4.26 to 1.5.26 | Design discussion and Improvement/ Upgradations | Faculty will give a lecture on presentation techniques to be used for preparation of final portfolio. Comments will be given on rendering styles, techniques, preparation of presentation drawings. | Students will be asked to do the upgradation as per the crits given by the faculty. | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to critically evaluate feedback and upgrade their designs, improving functionality, aesthetics, and overall quality based on faculty critiques. |
| Week-16<br><br>4.5.26 to 8.5.26 | **Final Design portfolio Submission STAGE-3** | Submission to be done by students. Final Review will be taken by the faculty. | **FINAL DESIGN SUBMISSION (INTERNAL)**<br>1. Concept and Zoning<br>2. Site plan- Inclusive of all ground floor plan of all built blocks, entrance and exit of all major blocks, entry-exits into the site, entry- exits of the basement, development of landscape, location of services etc.<br>3. All floor plans including basement | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to effectively present their design portfolios by applying appropriate rendering styles, presentation techniques, and organized portfolio layouts in the final jury. |

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| | | | 4. All side Elevations and minimum 4 sections. Sections through basement, toilets and staircase are compulsory.<br>5. Site sections<br>6. Views<br>7. Model<br><br>**(1000 Marks)** | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Literature Study** | **100** | **2nd Week** |
| **Case-Studies** | **200** | **3r & 4th Week** |
| **Site Analysis** | **100** | **5th Week** |
| **Concept & design development** | **200** | **6th to 8th and 11th to 13th Week** |
| **Major Review** | **300** | **9th Week** |
| **Pre- Final Review** | **500** | **14th Week** |
| **Final Review** | **1000** | **16th Week** |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Time Saver Standards and Neufert
2) NBC (for fire safety norms regarding staircase, exists, Lifts, Toilets etc.)
3) Building Byelaws
4) MPD-2021


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name – Ar. Neelam Shukla | Dean - Prof. Praveen Arora | Director – Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 2/01/2026 | Date 06.01.26 | Date 06.01.26 |

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**B. Arch. PROGRAMME; TEACHING SCHEDULE; ACADEMIC YEAR : 2025-2026**

| | | |
|---|---|---|
| YEAR : **2026** | CREDITS : **05** | SEMESTER : **SEM - VI (EVEN SEMESTER)** |
| SUBJECT CODE : **AP - 304** | | SUBJECT TITLE : **BUILDING CONSTRUCTION - VI** |
| SUBJECT TYPE : **STUDIO** | | |
| INTERNAL ASSESSMENT : **40 Marks** | | EXTERNAL ASSESSMENT (UE) : **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS : **80 hours** | | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

1. The objective is to understand the principles of construction technology and the process of construction.
2. To be able to further resolve architectural design of buildings for making them executable by a set of standard communicative technical drawings which can be used at site for execution.

**COURSE OBJECTIVES (CO)-**

- **CO1.** Translate an architectural design studio project into a comprehensive and coordinated set of working drawings suitable for on-site execution.
- **CO2.** Demonstrate a clear understanding of construction technology, materials, and methods through accurate detailing of building components.
- **CO3.** Integrate structural systems, services, and sustainability considerations into architectural working drawings.
- **CO4.** Apply building bye-laws, codes, standards, and professional drawing conventions in the preparation of architectural drawings.
- **CO5.** Develop material-specific construction details, appreciating the potentials and limitations of different building materials.
- **CO6.** Use contemporary drafting tools and documentation practices to produce precise, legible, and professional-quality drawings.

**CO-PO MAPPING**

**(3 point scale; 1=Aware/Basic knowledge; 2=Average/Intermediate: 3=Advanced/Strong correlation)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | - | - | 1 | 1 |
| CO2 | 1 | 3 | - | - | - | - |
| CO3 | 1 | 2 | 3 | - | - | 1 |
| CO4 | - | 1 | - | - | 3 | - |
| CO5 | 2 | 3 | 1 | - | - | - |
| CO6 | 1 | 1 | - | - | 1 | 3 |
| Average | 1.33 | 2 | 0.66 | 0 | 0.83 | 0.83 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC / CONTENT | METHODOLOGY | ASSIGNMENT | COs Achieved | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | **Introduction & Project Finalization**<br>• Role of working drawings in professional practice<br>• Review of selected **previously designed studio project**<br>• Understanding scale, coordination, and drawing hierarchy | **STUDIO - BASED LEARNING**<br>**PEER REVIEWS & PIN-UPS**<br>**CASE STUDIES & SITE REFERENCES** | Finalize a previously designed architectural project suitable for execution-level detailing. | **CO1** | **Understand** the role, scope, and importance of working drawings in architectural practice.<br>**Identify** the components of a complete working drawing set. |
| 2 | **Site & Context Drawings**<br>• Location plan, key plan, site plan<br>• Setbacks, access, levels, landscape interface<br>• Applicable bye-laws and zoning controls | | Prepare accurate location, key, and site plans as per standard architectural conventions. | **CO1, CO2** | **Interpret** and apply building bye-laws, setbacks, access requirements, and site constraints.<br>**Demonstrate** the relationship between site context and building placement. |
| 3 | **Grid, Structural Logic & Levels**<br>• Structural grid integration<br>• Level markings (plinth, slab, terrace)<br>• Column–wall coordination | | Coordinate architectural drawings with basic structural logic. | **CO3** | **Establish** a rational structural grid aligned with architectural planning.<br>**Identify** and mark critical building levels such as plinth, floor, slab, and terrace. |
| 4 | **Working Floor Plans**<br>• Dimensioned plans<br>• Wall thickness, openings, furniture & fixtures<br>• Material notation | | Produce dimensioned working plans with accurate wall thickness and openings. | **CO1** | **Incorporate** furniture, fixtures, and material indications in plans.<br>**Demonstrate** clarity, precision, and professional drafting standards. |
| 5 | **Sections (Building Sections)**<br>• At least two detailed sections<br>• Floor-to-floor heights<br>• Structural and material expression | | Develop detailed building sections showing vertical spatial organization. | **CO2, CO3, CO4** | **Represent** floor-to-floor heights, structural components, and material layers.<br>**Communicate** construction logic through sectional drawings. |
| 6 | **Elevations**<br>• Material-based elevations<br>• Fenestration, shading devices, finishes<br>• Height controls and aesthetics | | Illustrate fenestration, shading devices, and surface treatments. | **CO4** | **Prepare** material-sensitive elevations reflecting architectural character.<br>**Relate** elevation design to climatic and aesthetic considerations. |

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| | | | | | |
|---|---|---|---|---|---|
| 7 | **Foundation & Plinth Details**<br>• Foundation types<br>• Plinth protection, damp-proofing<br>• Soil–structure interface | | Draw foundation and plinth details with damp-proofing and plinth protection. | **CO4** | **Understand** different foundation systems and their application. **Demonstrate** awareness of soil–structure interaction at basic level. |
| 8 | **Wall, Opening & Fenestration Details**<br>• Brick/stone/RCC wall details<br>• Door–window jamb, sill, lintel<br>• Material junctions | | Prepare door and window details including sill, jamb, and lintel. | **CO4** | **Detail** walls using different material systems (brick, RCC, composite). **Analyze** material junctions and construction tolerances. |
| 9 | **Staircase & Vertical Circulation**<br>• Staircase geometry & code compliance<br>• Ramps / lifts (if applicable) | | Design and draw staircases complying with building codes and ergonomic standards. | **CO4** | **Demonstrate** understanding of riser–tread relationships and safety norms. **Integrate** vertical circulation seamlessly within architectural drawings. |
| 10 | **Floor, Roof & Waterproofing Details**<br>• Flooring build-ups<br>• Terrace roof details<br>• Waterproofing systems | | Draw layered floor and roof construction details accurately. | **CO4** | **Understand** and represent waterproofing strategies in roof assemblies. **Evaluate** the performance requirements of horizontal building elements. |
| 11 | **MID TERM EXAMINATIONS** | | | | |
| 12 | **Services Integration**<br>• Plumbing & drainage layouts<br>• Electrical layouts<br>• HVAC coordination (schematic level) | | Coordinate plumbing, drainage, electrical, and HVAC layouts at architectural level. | **CO5** | **Identify** service shafts, ducts, and access points within the building. **Demonstrate** interdisciplinary coordination skills essential for execution. |
| 13 | **Doors, Windows & Schedules**<br>• Door/window schedules<br>• Material & hardware specifications | | Prepare door and window schedules with sizes, materials, and hardware. | **CO5** | **Standardize** drawing notation, legends, and symbols. **Communicate** construction information systematically and unambiguously. |
| 14 | **Set Compilation & Professional Presentation**<br>• Sheet organization<br>• Title blocks, notes, symbols<br>• Cross-referencing & clarity | | Compile a complete, coherent, and well-organized working drawing set. | **CO5, CO6** | **Apply** professional standards in sheet layout, title blocks, and references. **Review** drawings critically for errors, |

| | | | | | |
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| | | | | | coordination gaps, and clarity. |
| 15 | **Final Jury & Submission**<br>• Final corrections<br>• Viva-voce / Jury review | | | **CO6** | **Demonstrate** readiness for site-level documentation and execution. **Reflect** on design-to-construction translation as a professional skill. |
| 16 | **FINAL PORTFOLIO SUBMISSION / DOUBT CLEARING** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Sheets Rating** | **60 %** | **Week wise** |
| **Timely Submission** | **15 %** | **As and when** |
| **Attendance Score** | **25 %** | **End of Semester** |

**SUGGESTED BOOKS/READINGS:**


1. Styles Keith and Bichard Andrew, Working Drawing Handbook, Architectural Press
2. Simmon H.L, Olin's, Construction Principles , Materials and Methods, John Wiley &Sons, 2007
3. Mchugh, R. ,Working Drawing Handbook: A Guide for Architects and Builders. Washington DC: Van Nostrand Reinhold, 1982
4. Barry, R (1999) Construction of Buildings. East West Press Pvt. Ltd., New Delhi.
5. Mckay, WB (1988) Building Construction (Vol. I, II, III & IV). Orient Longman,London.
6. Allen, E (1999) Fundamentals of Building Construction: Materials and Methods. JohnWeily& Sons, New York.
7. Punamia BC (1993) Building Construction, Laxmi Publications (P) Ltd, New Delhi.
8. Chudley, R (1988) Building Construction Handbook. Butterworth Heinemann, Oxford.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty: **Ar. Divesh Wadhwa** | Dean: **Ar. Praveen Arora** | Director: **Prof. Bijay Dash** |
| Signature | Signature | Signature |
| Date: **12-01-2026** | Date: 13-01-2026 | Date: 13-01-2026 |

# MBS COLLEGE

**Affiliated to GGSIPU and Approved by CoA & AICTE**
**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-2026**

| | |
|---|---|
| YEAR : THIRD YEAR | SEMESTER: SEM - 6(EVEN SEMESTER) |
| SUBJECT CODE: AP-322 | SUBJECT TITLE: **THEORY OF STRUCTURES-VI** |
| SUBJECT TYPE: THEORY/ PRACTICAL | CREDITS: **4** |
| INTERNAL ASSESSMENT: Total 40 MARKS<br>(15 marks = Attendance)<br>(15 marks = Mid-term marks)<br>(10 marks = Assignments + Quiz) | EXTERNAL ASSESSMENT (UE): Total 60 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | per week: L: 4 S: 0<br>per semester: L: 64 S: 0 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**
**To** understand Elementary of structural systems and different forms of structures, as per structural perspective.

**COURSE OBJECTIVES (CO) SPECIFIC-**
CO-1- Theory of structure deals in design and analyse of High-rise structures. Basics of structural behaviour of different structural members like, horizontal members and vertical members.
CO-2- introduction to STADPRO software, its application in simple structural members. Like portal frames.
CO-3-. In this subject student know, how to use the theoretical knowledge of steel/RCC structural design to structural design softwares.

**Program Objectives (B.Arch.): -**

**PO1. Develop Design Thinking and Practical Learning Skills**
To nurture strong design sensibilities through hands-on studio work, practical exercises, model making, site studies, and real-world problem-solving, enabling students to conceptualize, visualize, and design-built environments that are functional, aesthetic, and context-responsive.

**PO2. Build Strong Technical and Construction Knowledge**
To equip students with a sound understanding of building construction, materials, structures, and services (HVAC, water supply, lighting, acoustics, electrical systems) for designing safe, durable, and efficient buildings.

**PO3. Promote Sustainable and Climate-Responsive Design**
To enable learners to integrate environmental science, climatology, and sustainability principles into architectural solutions that are energy-efficient, environmentally responsible, and socially relevant.

**PO4. Integrate History, Theory, and Cultural Understanding**

To develop an understanding of architectural history, Architectural and other relevant theory, sociology, and conservation in order to encourage culturally informed, ethically grounded, and heritage-sensitive design practice.

**PO5. Apply Standards, Codes, and Professional Practice**

To prepare students for professional practice through knowledge of building bye-laws, codes, standards, safety regulations, project management, and documentation processes.

**PO6. Encourage Innovation and Emerging Technologies**

To introduce students to smart buildings, digital tools, building automation, and advanced construction techniques, fostering innovation and adaptability in a rapidly evolving architectural profession

**CO-PO MAPPING -**

**(3-point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO2 | 3 | 3 | 1 | 2 | 3 | 3 |
| CO3 | 2 | 1 | 2 | 2 | 2 | 2 |
| Average | 2.66 | 2.33 | 2 | 2.33 | 2.66 | 2.66 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | **UNIT-1** | Analysis of simple portal frame for horizontal loads by portal Method. | | | |
| 2 | | Continue: Analysis of simple portal frame for horizontal loads by portal Method. | | | |
| 3 | | Continue: Analysis of simple portal frame for horizontal loads by portal Method. | | | |
| 4 | | Structural system studies: Functions of structural system in building. | UNIT -1 ASSIGNMENT (10) MARKS QUIZ (10) MARKS | CO-1 CO-2 | Students are able to calculate horizontal loads by portal method. |
| 5 | UNIT-2 | Horizontal support systems (floor systems) and vertical support systems (column and walls). | | | |
| 6 | | Floor systems: various types, beam and slab systems, Waffle slab systems, | | | |
| 7 | | Flat slab and Flat plate systems, Grid floors. | | | |
| 8 | | High Rise buildings: Principle of high-rise structures forces on a high-rise building. | UNIT – 2 ASSIGNMENT (10) MARKS QUIZ (10) MARKS | CO-1 CO-2 | Students are able to know about horizontal support system. |
| 9 | UNIT-3 | Effects of horizontal loads in a high rise building. | | | |
| 10 | | MID TERM EXAM | | | |
| 11 | | Shear walls system: Functions, types, frames, types frames acting along with shear walls. | | | |

| | | | | | |
|---|---|---|---|---|---|
| 12 | | Tube systems, advantages and disadvantages of each. | UNIT – 3<br>ASSIGNMENT<br>(10) MARKS<br>QUIZ<br>(10) MARKS | CO-2<br>CO-3 | Students are able to know about structural behaviour of High-Rise building. |
| 13 | **UNIT-4** | Introduction to computer analysis of building frames. | | | |
| 14 | | Merits of computer methods of analysis and design compared to manual methods. | | | |
| 15 | | Introduction to STADDPRO software, generation of input files and interpretation of output results. | | | |
| 16 | | Software application for simple building frames and portal frames (simple cases only). | UNIT – 4<br>ASSIGNMENT<br>(10) MARKS<br>QUIZ<br>(10) MARKS | CO-2<br>CO-3 | Students are able to model and analyse structural behaviour of building. |
| 17 | | Doubt session/ Revision | | | |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Quiz | 10 MARKS PER UNIT | AFTER LAST LECTURE OF EACH UNIT |
| Assignment | 10 MARKS PER UNIT | AFTER LAST LECTURE OF EACH UNIT |
| Mid-term Review | TOTAL 50 MARKS | AFTER COMPLETING TWO UNITS |
| Case-Study | - | - |
| End Term Exam | - | - |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


**1)Design Of Tall Buildings (Bungale S Taranath)**

**2)Advanced Reinforced concrete Design (P C Varghese)**

**3)IS CODE (456 & 800).**


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name -Er. Kapil Prabhat Verma | HOD / Dean/ Deputy Director | Director-Prof. Bijay Dash |
| Signature- | Signature | Signature |
| Date-07/01/2026 | Date 08-01-2026 | Date 08-01-2026 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : THIRD YEAR | SEMESTER: SEM – VI (EVEN SEMESTER) |
| SUBJECT CODE: AP-324 | SUBJECT TITLE: CODES OF PRACTICE & BUILDING BYE-LAWS |
| SUBJECT TYPE: THEORY | CREDITS: 02 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 32 Hours |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- . The course covers some of the legal aspects of professional practice and involves the study of relevant codes, bye laws, and regulations for design and construction of buildings.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO-1-** To enables students to understand the purpose, scope, and terminology of building codes and regulations, and their application in special contexts such as heritage zones, environmentally sensitive areas, disaster-prone regions, coastal zones, and hilly areas.
- **CO-2**- To develops knowledge of development controls and Model Building Bye-laws, including FAR/FSI, zoning regulations, elevation control laws, height controls, and their influence on site planning and built form.
- **CO-3**- To builds the ability to interpret National Building Code provisions related to fire safety, fire exits, building materials, HVAC systems, and services to ensure life safety and functional efficiency in buildings.
- **CO-4** - To enables students to analyze Master Plan and Unified Building Bye-laws with respect to lighting, ventilation, structural strength, stability, high-rise regulations, and dimensional requirements of building components.
- **CO-5-** To familiarizes students with the implications of development control norms, building permission procedures, and the roles of Development Authorities and Municipal Corporations in regulating construction and professional practice

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 1 | 2 | 2 | 3 | 3 | - |
| CO2 | 2 | 2 | 1 | - | 3 | - |
| CO3 | 1 | 3 | 2 | - | 3 | 1 |
| CO4 | 2 | 3 | 3 | 1 | 3 | - |
| CO5 | 1 | 1 | - | - | 3 | - |

# MBS COLLEGE

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**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| Week-1<br><br>19.1.26 to 23.1.26 | **Introduction to the subject Building codes**<br>• Need and nature of building codes, standards and regulations,<br>• Overview of basic terminologies.<br>• Nature of building codes in special regions like heritage zones, environmentally sensitive zones, disaster prone regions, coastal zones, hilly areas etc. | Interactive session with the students in the form of questions & answers | - | CO-1 | Students are expected to understand the relevance and importance of this course |
| Week-2<br><br>26.1.26 to 30.1.26 | **UNIT-1 : Building Bye-laws**<br>• What are Building Bye-laws<br>• Need of Building Bye-laws<br>• Norms for exterior and interior open spaces, setbacks and margins, norms for building projections in open spaces<br>• What is FAR/FSI Considerations in FAR | Interactive session with the students in the form of questions & answers | - | CO-2 | At the end of this topic, students are expected to understand about Building Bye-laws ,its need and basics about FAR |
| Week-3<br><br>2.2.26 to 6.2.26 | **UNIT-1 : Building Bye-laws**<br>• Types of Bye Laws<br>• Zoning Bye laws | Review by the faculty | Group Presentation - Change in FAR MPD- 1962, 2001 and 2021 with the help of Case Study | CO-2 | Analyze and able to understand about various Architectural controls related to |

| | | | | | |
|---|---|---|---|---|---|
| | • Building Control Laws for Elevation Control<br>Height Controls | | showing Transition in Built up.<br><br>**(50 Marks)** | | zoning as well as Elevation and Height |
| Week-4<br><br>9.2.26 to 13.2.26 | **UNIT 2 : National Building Code & Services**<br><br>• Importance of NBC<br>• Salient features of NBC<br>Difference between NBC and Building Bylaws | Interactive session with the students in the form of questions & answers | - | **CO-3** | Identify and assess the component required difference from NBC or Bylaws. |
| Week-5<br><br>16.2.26 to 20.2.26 | **UNIT 2 : National Building Code & Services**<br><br>• Byelaws related to Fire Safety:<br>• Overview of fire protection norms for various building classifications,<br>Norms for fire exit ways and building materials, concept of fire zoning, doorways, stairways, passages and corridors, fire escapes etc | Interactive session with the students in the form of questions & answers | - | **CO-3** | Able to understand and refer Fire safety norms as per the requirement |
| Week-6<br><br>23.2.26 to 27.2.26 | **UNIT 2 : National Building Code & Services**<br><br>• Byelaws related to HVAC and Services<br><br>General principles for natural and mechanical ventilation. | Interactive session with the students in the form of questions & answers | - | **CO-3** | Able to understand and refer guidelines of Mechanical Ventilation & Air Conditioning |
| Week-7<br><br>2.3.26 to 6.3.26 | **REVISION**<br><br>UNIT-1 : Building Bye-laws<br>UNIT 2 : National Building Code & Services | Review by the faculty | **Group Presentation–** Elevation and Architectural Controls with the help of example.<br><br>**(50 Marks)** | **CO-1, CO-2, CO-3** | |
| Week-8<br><br>9.3.26 to 13.3.26 | **UNIT 3 : Delhi Master Plan & UBBL**<br><br>• Model building Bye-laws & UBBL | Interactive session with the students in the form of questions & answers | - | **CO-2, CO-4** | Apply Bye-laws and its concepts related to Lighting & Ventilation in |

| | | | | | |
|---|---|---|---|---|---|
| | • Bye-laws related to lighting and ventilation<br>Components of daylight factor, general principles of opening for good lighting, considerations in artificial lighting. | | | | planning process. |
| Week-9<br><br>16.3.26 to 20.3.26 | **UNIT 3 : Delhi Master Plan & UBBL**<br>• Bye-laws related to strength & stability of structures<br>Bye-laws for High rise buildings | Interactive session with the students in the form of questions & answers | - | **CO-2, CO-4** | Understand Guidelines on stability of Structures and its importance as safety tool in Designing and Construction. |
| Week-10 | **Mid term Examination (23.3.26 to 27.3.26)** | | | | |
| Week-11<br><br>30.3.26 to 3.4.26 | **UNIT 3 : Delhi Master Plan & UBBL**<br><br>Requirements for parts of buildings: Plinth, Habitable rooms, kitchen, wet areas, mezzanine. store rooms, elevated parts like chimneys, parapets etc | Interactive session with the students in the form of questions & answers | - | **CO-4** | Will learn new Terminologies of related to Building design and Planning. |
| Week-12<br><br>6.4.26 to 10.4.26 | **UNIT 4 : Implications and Role**<br><br>Implications of Development control Norms of various zones of Delhi | Review by the faculty | **Group Presentation-** Comparative analysis between Delhi ULLB 2016 and NBC on various parameters.<br><br>**(50Marks)** | **CO-5** | Understand Development control norms as per different areas |
| Week-13<br><br>13.4.26 to 17.4.26 | **UNIT 4 : Implications and Role**<br><br>• Overview of administrative processes for obtaining building permits at various stages, | Interactive session with the students in the form of questions & answers | - | **CO-5** | Understand Process of Building permits and building classification based on types of occupancy |

| | | | | | |
|---|---|---|---|---|---|
| | Role of development authorities and Municipal Corporation | | | | |
| Week-14<br><br>20.4.26 to 24.4.26 | REVISION<br><br>**UNIT-3 : Delhi Master Plan & UBBL**<br>**UNIT 4 : Implications and Role** | Interactive session with the students in the form of questions & answers | - | **CO-4, CO-5** | |
| Week-15<br><br>27.4.26 to 1.5.26 | MOCK PAPER SOLUTION | Students are assigned to solve the questions given by the faculty from the whole syllabus | - | **CO-1, CO-2, CO-3, CO-4, CO-5** | Prepare students for End Term Examination |
| Week-16<br><br>4.5.26 to 8.5.26 | MOCK PAPER SOLUTION | Students are assigned to solve the questions given by the faculty from the whole syllabus | - | **CO-1, CO-2, CO-3, CO-4, CO-5** | Prepare students for End Term Examination |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignment -1 (Group Presentation)** | **50 Marks** | **Week -3** |
| **Assignment -2 (Group Presentation)** | **50 Marks** | **Week- 7** |
| **Assignment -3 (Group Presentation)** | **50 Marks** | **Week -12** |
| **Mid-term Review** | **50 Marks** | **Weeek-10** |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) NBC: National Building Code of India 2016.

2) Unified Building Bye-laws for Delhi 2016

3) Delhi Master Plan, Delhi Development Authority.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name – Ar. Neelam Shukla | Dean - Prof. Praveen Arora | Director – Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 2/01/2026 | Date 06.01.26 | Date 06.01.26 |

# MBS COLLEGE

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**B. Arch. PROGRAMME; TEACHING SCHEDULE; ACADEMIC YEAR : 2025-2026**

| | | |
|---|---|---|
| YEAR : **2026** | CREDITS : **02** | SEMESTER : **SEM - VI (EVEN SEMESTER)** |
| SUBJECT CODE : **AP - 326** | | SUBJECT TITLE : **HVAC & SECURITY SYSTEMS ACCESS CONTROL** |
| SUBJECT TYPE : **THEORY** | | |
| INTERNAL ASSESSMENT : **40 Marks** | | EXTERNAL ASSESSMENT (UE) : **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS : **32 hours** | | |

## GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-

The objective of the course is to provide a systematic understanding of environmental support systems as they apply to human habitat, with special reference to thermal comfort, HVAC and other mechanical and electrical services.

## COURSE OBJECTIVES (CO)-

- **CO1.** Understand the fundamentals of thermal comfort, psychrometrics, and heat transfer as they relate to human comfort in buildings.
- **CO2.** Explain the principles, components, and working of HVAC systems (air-conditioning, ventilation, refrigeration, and elevators) used in residential, commercial, and institutional buildings.
- **CO3.** Apply basic heat load estimation and system selection techniques for different building typologies.
- **CO4.** Integrate HVAC and vertical transportation systems with architectural planning, spatial design, and building services coordination.
- **CO5.** Evaluate indoor air quality, fresh air requirements, and energy-efficient HVAC strategies for sustainable building design.
- **CO6.** Understand building automation systems, access control, and emerging technologies in smart and secure buildings, with reference to relevant codes and professional practice.

## CO-PO MAPPING

**(3 point scale; 1=Aware/Basic knowledge; 2=Average/Intermediate: 3=Advanced/Strong correlation)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| **CO1** | 2 | 3 | 2 | - | - | - |
| **CO2** | 2 | 3 | 2 | - | 2 | - |
| **CO3** | 2 | 3 | 3 | - | 2 | - |
| **CO4** | 3 | 2 | 2 | 1 | 2 | - |
| **CO5** | 2 | 2 | 3 | - | 1 | - |
| **CO6** | 1 | 2 | 2 | - | 2 | 3 |
| Average | 2 | 2.5 | 2.33 | 0.16 | 1.5 | 0.5 |

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## WEEKLY SCHEDULE

| WEEK | UNIT/TOPIC / CONTENT | TEACHING METHODOLOGY | ASSIGNMENT | COs Achieved | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | Introduction to Environmental Support Systems<br>1. Role of HVAC in architecture<br>2. Human comfort, comfort indices<br>3. Scope of HVAC & security systems in buildings | LECTURE | | CO1 | Students understand the relevance of HVAC systems in architectural design. |
| 2 | Thermal Comfort & Heat Transfer<br>1. Sensible and latent heat<br>2. Heat gain & heat loss mechanisms<br>3. Impact of climate & building envelope | LECTURE | | CO1, CO2 | Students explain factors affecting thermal comfort in buildings. |
| 3 | Psychrometrics<br>1. Psychrometric chart<br>2. Processes: heating, cooling, humidification, dehumidification<br>3. Comfort zone interpretation | LECTURE | | CO1 | Students interpret psychrometric charts for indoor comfort analysis. |
| 4 | Refrigeration Cycle<br>1. Vapour compression cycle<br>2. Refrigerants and compressors<br>3. COP and efficiency | LECTURE | | CO1 | Students understand basic refrigeration principles used in air-conditioning. |
| 5 | Heat Load Estimation (Conceptual Level)<br>1. External & internal loads<br>2. Impact of walls, roof, glass, occupancy<br>3. Introduction to cooling load calculations | LECTURE | | CO2, CO3, CO4 | Students identify components contributing to building heat loads. |
| 6 | Non-Ducted Air-Conditioning Systems<br>1. Window ACs, Split units<br>2. Installation considerations<br>3. Architectural coordination | LECTURE | | CO4 | Students select appropriate non-ducted systems for small buildings. |
| 7 | Ducted & Packaged Systems<br>1. Split ducted & packaged units<br>2. Duct layouts and space requirements<br>3. Noise and aesthetics | LECTURE | | CO4 | Students integrate ducted systems with building design. |
| 8 | Central Air-Conditioning Systems<br>1. Chilled water systems<br>2. Air handling units, FCUs<br>3. Cooling towers & plant rooms | LECTURE | | CO4 | Students understand central HVAC system planning and zoning. |
| 9 | Advanced HVAC Systems<br>1. Variable Air Volume (VAV)<br>2. Variable Refrigerant Flow (VRF)<br>3. Absorption systems | LECTURE | | CO4 | Students compare advanced HVAC system for different building uses. |
| 10 | Ventilation & Indoor Air Quality<br>1. Fresh air standards<br>2. Sick Building Syndrome<br>3. Natural vs mechanical ventilation | LECTURE | | CO4 | Students evaluate ventilation strategies for healthy indoor environments. |
| 11 | **MID TERM EXAMINATIONS** | | | | |
| 12 | HVAC in Building Typologies<br>1. Hotels, hospitals, commercial buildings<br>2. Zoning strategies<br>3. Energy-efficient design approaches | LECTURE | | CO5 | Students adapt HVAC strategies to building function and occupancy. |

| | | | | | |
|---|---|---|---|---|---|
| 13 | Building Automation & Access Control<br>1. Sensors, controllers<br>2. Energy management systems<br>3. Smart HVAC, demand limiting<br>4. Introduction to access control systems | **LECTURE** | | **CO5** | Students understand automation and smart control in modern buildings. |
| 14 | Vertical Transportation Systems<br>1. Elevators: passenger, goods, hospital lift<br>2. Lift planning & core design<br>3. Waiting time analysis<br>4. IS codes overview | **LECTURE** | | **CO5, CO6** | Students integrate elevator systems with architectural planning. |
| 15 | Site/ Case Study Review & Future Trends<br>1. HVAC walkthrough (site or virtual)<br>2. Emerging trends: net-zero buildings, smart systems<br>3. Course recap | **LECTURE** | | **CO6** | Students critically evaluate real -world HVAC applications. |
| 16 | **FINAL SUBMISSION/ MARK COMPILATION/ DOUBT CLEARING** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignments Score** | **30 %** | **After Every Unit** |
| **Mid-term Assessments** | **50 %** | **Around 10th Week** |
| **Attendance Score** | **20 %** | **End of Semester** |

**SUGGESTED BOOKS/READINGS:**


1. Chadderton, DV (2000) Building Services Engineering. E & FN Spon, London.
2. McQuiston FC, Parker JD & Jeffrey DS (2005) Heating, Ventilating, and Aire Conditioning: Analysis and Design, Wiley.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty: **Ar. Divesh Wadhwa** | Dean: **Ar. Praveen Arora** | Director: **Prof. Bijay Dash** |
| Signature | Signature | Signature |
| Date: **09-01-2026** | Date: 10-01-2026 | Date: 10-01-2026 |

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**B. Arch. PROGRAMME; TEACHING SCHEDULE; ACADEMIC YEAR : 2025-2026**

| | |
|---|---|
| YEAR : **2026** | SEMESTER : **SEM - VI (EVEN SEMESTER)** |
| SUBJECT CODE : **AP - 328** | SUBJECT TITLE : **ENERGY & BUILDING - II** |
| SUBJECT TYPE : **THEORY** | CREDITS : **02** |
| INTERNAL ASSESSMENT : **40 Mark** | EXTERNAL ASSESSMENT (UE) : **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS : **32 hours** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

1. To understand the role of energy in the functioning of buildings.
2. To inform the need to use alternative sources of energy in view of the depleting resources and climate change.
3. To understand application of active and passive design considerations in heating and cooling of buildings.
4. To make students conversant with guidelines of ECBC, to make the students aware of the future trends in creating a sustainable built environment.

**COURSE OBJECTIVES (CO)-**

- **CO1.** Understand the role of energy in the functioning of buildings and evaluate patterns of energy consumption in the built environment with reference to Indian climatic conditions.
- **CO2.** Interpret and apply **ECBC and related energy standards** to assess energy performance of buildings and building components.
- **CO3.** Analyze climate-responsive architectural strategies and integrate **passive design principles** for heating and cooling of buildings.
- **CO4.** Evaluate and apply **solar passive heating systems** and **passive cooling systems** suitable for different climatic zones of India.
- **CO5.** Correlate traditional/vernacular wisdom with contemporary sustainable design approaches for energy-efficient buildings.
- **CO6.** Develop basic analytical and design-based solutions for reducing building energy demand using passive systems and environmental controls.

**CO-PO MAPPING**

**(3 point scale; 1=Aware/Basic knowledge; 2=Average/Intermediate: 3=Advanced/Strong correlation)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 2 | 2 | 3 | 1 | 2 | 1 |
| CO2 | 1 | 3 | 2 | 1 | 3 | 1 |
| CO3 | 3 | 2 | 3 | 2 | 1 | 1 |
| CO4 | 3 | 2 | 3 | 2 | 1 | 1 |
| CO5 | 2 | 1 | 3 | 3 | 1 | 1 |
| CO6 | 3 | 2 | 3 | 2 | 2 | 2 |
| Average | 2.33 | 2 | 2.83 | 1.83 | 1.66 | 1.16 |

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## WEEKLY SCHEDULE

| WEEK | UNIT/TOPIC / CONTENT | TEACHING METHODOLOGY | ASSIGNMENT | COs Achieved | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | 1. Introduction to Energy in Buildings<br>2. Energy Conservation Act 2001<br>3. Concepts of building energy demand | LECTURE | | CO1 | 1. Explain the role of energy in building functioning<br>2. Identify major sources and patterns of energy consumption in buildings<br>3. Describe the objectives and scope of the Energy Conservation Act, 2001 |
| 2 | 1. ECBC: objectives, structure, compliance paths<br>2. EPI, connected load, role of energy auditors | LECTURE | | CO1, CO2 | 1. Interpret the structure and intent of ECBC guidelines<br>2. Define EPI, connected load, and energy audit terminology<br>3. Understand compliance paths under ECBC |
| 3 | 1. Energy-efficient buildings, green buildings, net-zero buildings<br>2. Energy consumption in building materials and systems | LECTURE | | CO1 | 1. Differentiate between energy -efficient, green, sustainable, and net-zero buildings<br>2. Explain embodied energy and operational energy concepts<br>3. Evaluate energy consumption trends in building systems |
| 4 | • ECBC standards:<br>○ Building envelope<br>○ Lighting (indoor/outdoor)<br>○ HVAC and solar water heating<br>• Cost–benefit and life-cycle approaches | LECTURE | | CO1 | 1. Identify ECBC requirements for envelope, lighting, HVAC, and solar systems<br>2. Explain life-cycle cost and cost–benefit approaches<br>3. Relate energy efficiency measures to long-term building performance |
| 5 | 1. Architectural design as response to climate<br>2. Climatic zones of India<br>3. Site planning: landform, vegetation, water bodies | LECTURE | | CO2, CO3, CO4 | 1. Classify Indian climatic zones and their characteristics<br>2. Analyze site factors such as topography, vegetation, and water bodies<br>3. Correlate climate with architecture planning decision |
| 6 | 1. Orientation and form<br>2. Heat transfer through walls and roofs<br>3. Material selection, colour, textures, finishes<br>4. Vernacular architecture examples | LECTURE | | CO4 | 1. Analyze heat transfer through walls and roofs<br>2. Evaluate the impact of orientation, form, and material on thermal comfort<br>3. Illustrate climate-responsive strategies using vernacularity. |
| 7 | 1. Principles of solar passive heating<br>2. Direct gain systems | LECTURE | | CO4 | 1. Explain principles of solar passive heating<br>2. Identify climatic suitability for passive heating systems<br>3. Apply direct gain concepts in basic building layouts |
| 8 | 1. Thermal storage in walls and roofs | LECTURE | | CO4 | 1. Explain the role of thermal mass in energy storage |

| | | | | | |
|---|---|---|---|---|---|
| | 2. Roof radiation traps<br>3. Indirect gain systems (Trombe wall) | | | | 2. Describe Trombe walls and roof radiation traps<br>3. Analyze advantages and limitations of indirect gain systems |
| 9 | 1. Solarium and isolated gain systems<br>2. Climatic suitability and design limitations<br>3. Case studies (Indian & global examples) | **LECTURE** | | **CO4** | 1. Explain solarium and isolated gain systems<br>2. Compare different passive heating strategies<br>3. Analyze real-world case studies of solar passive buildings |
| 10 | 1. Cooling load basics<br>2. Passive cooling principles<br>3. Induced ventilation and air flow | **LECTURE** | | **CO4** | 1. Explain cooling load fundamentals<br>2. Describe induced ventilation and airflow patterns<br>3. Relate building design to thermal comfort in hot climate |
| 11 | **MID TERM EXAMINATIONS** | | | | |
| 12 | 1. Wind towers and stack effect<br>2. Earth air tunnels<br>3. Earth sheltering | **LECTURE** | | **CO5** | 1. Explain stack effect and wind-driven ventilation<br>2. Illustrate the working of wind towers and earth air tunnels<br>3. Evaluate earth sheltering as a passive cooling strategy |
| 13 | 1. Roof ponds<br>2. Evaporative cooling<br>3. Passive desiccant cooling | **LECTURE** | | **CO5** | 1. Explain roof ponds and evaporative cooling mechanisms<br>2. Describe passive desiccant cooling systems<br>3. Assess climatic limitations of various cooling techniques |
| 14 | 1. Nocturnal radiation cooling<br>2. Integrated passive cooling strategies<br>3. Comparative evaluation across climates | **LECTURE** | | **CO5, CO6** | 1. Explain nocturnal radiation cooling principles<br>2. Compare passive cooling strategies across climatic zones<br>3. Propose integrated passive cooling solutions for buildings |
| 15 | 1. Integration of passive heating and cooling systems<br>2. Case study presentations<br>3. Course review and examination preparation | **LECTURE** | | **CO6** | 1. Integrate passive heating and cooling strategies in building design<br>2. Critically evaluate energy-efficient buildings through case studies<br>3. Demonstrate holistic understanding of climate-responsive architecture |
| 16 | **FINAL SUBMISSION/ MARK COMPILATION/ DOUBT CLEARING** | | | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignments Score** | **30 %** | **After Every Unit** |
| **Mid-term Assessments** | **50 %** | **Around 10th Week** |
| **Attendance Score** | **20 %** | **End of Semester** |

**SUGGESTED BOOKS/READINGS:**


1. Manual on Solar Passive Architecture, IIT Mumbai and Mines New Delhi, 1999.
2. Arvind Krishnan & Others, "Climate Responsive Architecture", A Design Handbook for Energy Efficient Buildings, TATA McGraw Hill Publishing Company Limited, New Delhi, 2001.
3. Majumdar M, "Energy-efficient Building in India", TERI Press, 2000.
4. Givoni .B, "Passive and Low Energy Cooling of Buildings", Van Nostrand Reinhold, New York, 1994.
5. Fuller Moore, "Environmental Control Systems", McGraw Hill INC, New Delhi - 1993.
6. Sophia and Stefan Behling, Solpower, "The Evolution of Solar Architecture", Prestel, New York, 1996.
7. Patrick Waterfield, "The Energy Efficient Home: A Complete Guide", Crowood press ltd, 2011.
8. Dean Hawkes, "Energy Efficient Buildings: Architecture, Engineering and Environment", W.W. Norton & Company, 2002.
9. David Johnson, Scott Gibson, "Green from the Ground Up: Sustainable, Healthy and Energy efficient home construction", Taunton Press, 2008.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty: **Ar. Divesh Wadhwa** | Dean: **Ar. Praveen Arora** | Director: **Prof. Bijay Dash** |
| Signature | Signature | Signature |
| Date: **09-01-2026** | Date: 10-01-2026 | Date: 10-01-2026 |

# MBS COLLEGE

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**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

## B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26

| | |
|---|---|
| YEAR : **THIRD YEAR** | SEMESTER: **SEM – VI (EVEN SEMESTER)** |
| SUBJECT CODE: **AP-330** | SUBJECT TITLE: **SPECIFICATION & CONTRACT MANAGEMENT** |
| SUBJECT TYPE: **THEORY** | CREDITS: **02** |
| INTERNAL ASSESSMENT: **40 Marks** | EXTERNAL ASSESSMENT (UE): **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 32 Hours |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

The course is intended to provide the basic concepts of preparing Specifications and contract documents of building works.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO-1-** Enable students to explain the definitions, purpose, classification, and role of specifications in contract documents.
- **CO-2-** To understand and apply technical and general specifications, including legal provisions, measurement, payment, and progress control.
- **CO-3-** To prepare and evaluate construction specifications following standard format, style, and principles.
- **CO-4 -** To apply CPWD specifications for common building works and materials in construction practice.
- **CO-5-** To understand types of contracts and tendering procedures, including duties, liabilities, and arbitration in the construction industry.

**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| **CO1** | 1 | 3 | – | – | 3 | – |
| **CO2** | – | 3 | – | – | 3 | – |
| **CO3** | 2 | 3 | – | – | 3 | – |
| **CO4** | – | 3 | – | – | 3 | – |
| **CO5** | – | 1 | – | 2 | 3 | – |

**WEEKLY SCHEDULE**

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| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| Week-1<br>19.1.26 to 23.1.26 | **Unit-1:** Specifications: Definition, Importance, Composition of specifications, Broad classification of specifications, role in a contract document. | Interactive session with the students in the form of questions & answers | - | **CO-1, CO-2** | After completing this topic, students will be able to define, classify, and explain the importance and role of specifications in construction contract documents. |
| Week-2<br>26.1.26 to 30.1.26 | **Unit-1:** Open, restricted specification. Advantage & disadvantages of each Standard, special master specification, Nature-advantage & disadvantage of each. | Interactive session with the students in the form of questions & answers | Quiz on previous related subject. **(10 Marks)** | **CO-1, CO-2** | Students will be able to distinguish types of specifications and assess their advantages and disadvantages. |
| Week-3<br>2.2.26 to 6.2.26 | **Unit-1 & Unit 2:** Specification writing – format style, principles of good specification, merits and demerits. | Practice writing CPWD Specifications for carriage of materials, CPWD specifications for Brick work. | - | **CO-3** | Students will be able to prepare clear construction specifications using proper format and style, and evaluate their merits and demerits. |
| Week-4<br>9.2.26 to 13.2.26 | **Unit-1 & Unit 2:** Streamlined specification – Nature, advantages & disadvantages of each. | Practice writing CPWD Specifications for Flush Doors | - | **CO-2, CO-3** | Students will be able to explain the nature of streamlined specifications and evaluate their advantages and disadvantages. |
| Week-5 | **Unit-1 & Unit 2:** Types of Technical | Practice writing CPWD | - | **CO-2** | Students will be able **to** identify types of technical specifications |

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|---|---|---|---|---|---|
| 16.2.26 to 20.2.26 | Specification and provision of each. | Specifications for Synthetic Paint. | | | and explain the provisions of each. |
| Week-6<br><br>23.2.26 to 27.2.26 | **Unit-1 & Unit 2**: General provision of specification, definitions abbreviations. Scheduled and non-scheduled items, | Practice writing CPWD Specifications for Concrete and Mortar | - | **CO-1, CO-2** | Students will be able to explain general provisions of specifications, including definitions and abbreviations, and differentiate between scheduled and non-scheduled items. |
| Week-7<br><br>2.3.26 to 6.3.26 | **Unit-2**: CPWD Specifications for Mortar, CPWD Specifications for Concrete, | Interactive session with the students in the form of questions & answers | - | **CO-4** | Students will be able to apply CPWD specifications for mortars and concrete in building construction works |
| Week-8<br><br>9.3.26 to 13.3.26 | **Unit-2**: CPWD Specifications for Whitewash, CPWD Specifications for paint, | Interactive session with the students in the form of questions & answers | Specification writing of different building works, hand written on A4 pages.<br><br>**(10 Marks)** | **CO-4** | Students will be able to apply CPWD specifications for whitewash and paint in building finishing works. |
| Week-9<br><br>16.3.26 to 20.3.26 | **Unit-3**: Contracts: Introduction to Contract Management, definitions, form of contracts | Interactive session with the students in the form of questions & answers | - | **CO-5** | Students will be able to explain contract management concepts, define contracts, and identify different forms of construction contracts. |
| Week-10 | **Mid Term Examination** | | | | |
| Week-11<br><br>30.3.26 to 3.4.26 | **Unit-3**: Contracts: Type of contracts | Interactive session with the students in the form of questions & answers | - | **CO-5** | Students will be able to identify and compare different types of contracts. |
| Week-12<br><br>6.4.26 to 10.4.26 | **Unit-3**: Contracts: Type of contracts contd. | Interactive session with the students in the form of questions & answers | - | **CO-5** | |
| Week-13. | **Unit-3**: Contracts: Type of contracts contd. | Interactive session with the students in the | Report on Types of contracts, han | **CO-5** | |

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|---|---|---|---|---|---|
| 13.4.26 to 17.4.26 | | form of questions & answers | written on A4 Pages **(10 Marks)** | | |
| Week-14<br>20.4.26 to 24.4.26 | **Unit-4**: Condition of agreement and contract Tenders: acceptance of tender, Contract DOX, earnest Money, Security money, Retention amount & other conditions etc. | Interactive session with the students in the form of questions & answers | - | **CO-5** | Students will be able to explain key conditions of contracts and tender procedures. |
| Week-15<br>27.4.26 to 1.5.26 | **Unit-4**: Condition of agreement and contract Tenders: Duties and liabilities of Architect/Engineer w.r.t contract, Duties and liabilities of Owner & contractor w.r.t contract, Arbitration etc. | Interactive session with the students in the form of questions & answers | Quiz on previous related subject. **(10 Marks)** | **CO-5** | Students will be able to understand the duties, liabilities, and dispute-resolution mechanisms of the architect/engineer, owner, and contractor in construction contracts. |
| Week-16<br>4.5.26 to 8.5.26 | **Unit-4**: Condition of agreement and contract Tenders: Case studies | Review of case studies | Students are assigned to bring one case study for discussion and review.<br>**(10Marks)** | **CO-5** | Students will be able to analyze construction contract case studies to understand contractual conditions, disputes, and resolutions. |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Quiz** | **20 Marks** | **2nd & 15th Week** |
| **Assignment** | **20 Marks** | **8th & 13th Week** |
| **Mid-term Review** | **50 Marks** | **10th Week** |
| **Case-Study** | **10 Marks** | **16th Week** |

**SUGGESTED BOOKS/READINGS/REFERENCES:**

1) Dr. B.C. Punmia and K.K. Khandelwal-Project planning and control with PERT/CPM, Laxmi publications, New Delhi, 1987.
2) Delhi Schedule of Rates, Govt. of India CPWD, 2016
3) NBC : National Building Code of India 2016, Bureau of Indian Standards (2016)
4) M. Chakraborti
5) B.N. Dutta
6) Amarjit Aggarwal & A.K. Upadhyay
7) Rangwala


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name – Ar. Neelam Shukla | Dean - Prof. Praveen Arora | Director – Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 02/01/2026 | Date 6/01/26 | Date 6/01/26 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY-**

| | |
|---|---|
| YEAR : THIRD | SEMESTER: SEM - (EVEN SEMESTER) |
| SUBJECT CODE: AP-350 | SUBJECT TITLE: LANDSCAPE ARCHITECTURE |
| SUBJECT TYPE: PRACTICAL (ELECTIVE) | CREDITS: 03 |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 48 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

The objective of the course is to develop an understanding of the role of landscape design in relation with architecture and planning.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO-1**- To understand the historical evolution of landscape and garden design across various cultures and relate traditional principles to contemporary practices.
- **CO-2**- To learn site planning concepts for organizing circulation, built form, and open spaces with integration of microclimate considerations for parks, neighbourhoods, and campuses.
- **CO-3**- To develop landscape design skills for different building types, parks, and road networks, including formal, informal, and special landscape treatments.
- **CO-4**- To understand the application of water features, garden furniture, and man-made elements to enhance the functional and aesthetic quality of landscapes.
- **CO-5**- To comprehend principles of urban landscape design and apply landscaping strategies for streets, waterfronts, and interior, terrace, and vertical gardens.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 2 | 1 | - | 3 | - | - |
| CO2 | 3 | 2 | 3 | 1 | 1 | - |
| CO3 | 3 | 2 | 2 | - | 1 | - |
| CO4 | 2 | 2 | 2 | - | 1 | - |
| CO5 | 3 | 1 | 3 | 1 | 2 | 2 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| Week-1<br><br>19.1.26 to 23.1.26 | Introduction to the course, outline, need, and relevance to the discipline of architecture. | Interactive session with the students in the form of questions & answers | - | **CO-1, CO-2, CO-3** | Students will be able to learn that landscape in architecture is essential for creating holistic and sustainable designs that consider both the built and natural environments. |
| Week-2<br><br>26.1.26 to 30.1.26 | Garden Design Concepts- History (India, China Persia, Japan). | Interactive session with the students in the form of questions & answers | Report on A3 sheets in a group of 4 students on any type of Garden design.<br><br>**(100 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will get to know about the garden design concepts of different countries which have evolved, influenced by the cultural, philosophical, and artistic movements. |
| Week-3<br><br>2.2.26 to 6.2.26 | Garden Design Concepts- History (Europe, Renaissance, Gardens of Modern World). | Interactive session with the students in the form of questions & answers | | | Students will get to know about the garden design concepts of different countries which have evolved, influenced by the cultural, philosophical, and artistic movements |
| Week-4<br><br>9.2.26 to 13.2.26 | **Site Planning –**<br>Organization of spaces –<br>• i)Circulation, Built Form, and Open spaces<br>• ii) Site Planning and Micro Climate | Students will be asked to explain through sketches about the site planning, organization of spaces and | - | **CO-2, CO-3, CO-4, CO-5** | Students will be able to learn how to organize the spaces w.r.t. circulation, built form, and open spaces. |

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| | • iii) Site Planning for Neighbourhood Parks<br>• Children's Play Area<br>• Campus Development | campus development. | | | Students will be able to learn how to do site planning and control and maintain the microclimate within. |
| Week-5<br><br>16.2.26 to 20.2.26 | **Expert Lecture by renowned Landscape Architect** | **Expert Lecture** | - | **CO-5** | Students will be guided by professionals in the field which help them to understand the subject in a better way. Students can interact and ask their queries also. |
| Week-6<br><br>23.2.26 to 27.2.26 | **Understanding Landscape Design**<br>• Landscape for Various Building Types<br>• Landscaping Parks and Roads<br>• Rock gardens | Interactive session with the students in the form of questions & answers. | - | **CO-2** | Students will be able to understand how to do landscape for various building types, parks, roads, and rock gardens. |
| Week-7<br><br>2.3.26 to 6.3.26 | **Understanding Landscape Design**<br>• Formal and Informal Landscape Design<br>• Water and Man-Made Elements in Landscape<br>• Garden Furniture and Embellishments | Interactive session with the students in the form of questions & answers. | - | **CO-3, CO-4** | Students will be able to understand the difference between formal and informal landscape design and how to incorporate landscape elements in the design. |
| Week-8<br><br>9.3.26 to 13.3.26 | **Landscaping of Functional Areas.**<br>• Urban Open Spaces and Principles of Urban Landscape | Interactive session with the students in the form of questions & answers. | - | **CO-5** | Students will be able to do landscaping of functional areas in urban centres and street landscapes, |

| | | | | | |
|---|---|---|---|---|---|
| | • Street Landscape<br>• Landscape design for Waterfront Areas and Functional Areas in Urban Centres<br>• Interior, Terrace, and Vertical Gardens. | | | | interiors, terraces, and vertical gardens |
| Week-9<br><br>16.3.26 to 20.3.26 | **Site Visit of Sunder Nursery/ Sanskriti Kala Kendra /or any other historical landscaped site** | **Site Visit** | Site Visit Report on A3 sheets in a group of 4 students.<br><br>**(100 Marks)** | **CO-2** | Students will see and experience the landscaping of this beautiful place and can learn the organization of spaces, built forms, and open spaces and how to do site planning integrated with landscape |
| Week-10 | **Mid term Examination (23.3.26 to 27.3.26)** | | | | |
| Week-11<br><br>30.3.26 to 3.4.26 | Introduction to Landscape Design Problem-<br>**"Children Park"**<br>Students will be asked to do case studies in groups of 4-5 students related to it. | Group formation and discussion with students on case studies, design problems, and queries related to it | Case Study of similar project<br><br>(50 Marks) | **CO-2** | Students will be able to understand the typology of the design problem, site details, requirements, areas, and limitations. |
| Week-12<br><br>6.4.26 to 10.4.26 | Landscape Design - Case study submission<br>Lecture on Concept | Review of case studies and crits will be given to students for improvements. | Concept development (50 Marks) | **CO-2, CO-3, CO-4** | Students will get to know the corrections and improvements that need to be made in the case studies. |
| Week-13<br><br>13.4.26 to 17.4.26 | Landscape Design-<br>Concept Submission | A review of concepts and crits will be given to students for improvement. | - | **CO-2, CO-3, CO-4** | Students will get to know the corrections and improvements that need to be made in concepts. |

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|---|---|---|---|---|---|
| Week-14<br><br>20.4.26 to 24.4.26 | Landscape Design – Design development Site Plan | A review of design development and crits will be given to students for improvements. | Site Plan submission (50 Marks) | **CO-2** | Students will get to know the corrections and improvements that need to be made in design. |
| Week-15<br><br>27.4.26 to 1.5.26 | Landscape Design - Sections and Details submission | A review of sections and details and crits will be given to students for improvements. | Sections and Details submission (50 Marks) | **CO-2** | Students will get to know the corrections and improvements that need to be made in sections and details. |
| Week-16<br><br>4.5.26 to 8.5.26 | **Final Portfolio Submission.** | Review by Faculty | **Final Submission. on A1 sheets**<br>1) Case Study-**50 Marks**<br>2) Concept-**50 Marks**<br>3) Site Plan - **250 Marks**<br>4) Site sections-**100 Marks**<br>5) Landscape details with sections-**100 Marks**<br>6) 3D views-**250 Marks**<br><br>**Total 800 Marks** | **CO-2,CO-3, CO-4,CO-5** | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Report (Garden design)** | **100 Marks** | **Week-2** |
| **Report (Site visit)** | **100 Marks** | **Week-9** |
| **Case-Study** | **50 Marks** | **Week-11** |
| **Concept** | **50 Marks** | **Week-12** |
| **Site Plan** | **50 Marks** | **Week-14** |
| **Sections & details** | **50 Marks** | **Week-15** |
| **Final Submission** | **800 Marks** | **Week-16** |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


**1)** Bose, T.K. and Chowdhury, B., "Tropical Garden Plants in Colour", Allied Publishers. 1991

**2)** Black& Decker, "Landscape Design & Construction", Creative Publishing International. 1993

**3)** The Garden as Architecture by Toshiro Inaji


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name- Ar. Neelam Shukla | Dean- Prof. Praveen Arora | Director- Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 02/01/2026 | Date 6.01.26 | Date 06/01/26 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY-**

| | |
|---|---|
| YEAR : THIRD YEAR | SEMESTER: SEM - (EVEN/ODD SEMESTER) |
| SUBJECT CODE: AP-354 | SUBJECT TITLE: INTERIOR DESIGN -II |
| SUBJECT TYPE: PRACTICAL (ELECTIVE) | CREDITS: **03** |
| INTERNAL ASSESSMENT: 40 Marks | EXTERNAL ASSESSMENT (UE): 60 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 48 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- To acquaint with the terminology of Interior Design.
- To familiarize the students with large scale Interior projects.
- To understand various components of interior space along with its materials, treatment and finishes.
- To identify various aspects of interior design like lighting, landscaping and accessories.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO-1**- To Identify and analyze the components of interior space and their functional, aesthetic, and contextual roles in large-scale interiors.
- **CO-2**- To apply appropriate interior treatments and finishes for floors, walls, ceilings, partitions, openings, and accessories in large interior spaces.
- **CO-3**- To understand lighting systems by evaluating types of lighting, fixtures, and their effects and suitability across different interior contexts.
- **CO-4**- To examine interior landscaping elements, their physical properties, and their impact on spatial quality, comfort, and user experience.
- **CO-5- To** design and select furniture based on human comfort, function, materials, construction methods, evolving lifestyles, and specific interior typologies such as offices, residences, children's spaces, and display systems.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | 1 | 1 | - | - |
| CO2 | 3 | 3 | 1 | - | 1 | - |
| CO3 | 2 | 3 | 2 | - | 1 | 1 |
| CO4 | 2 | 1 | 3 | 1 | - | - |
| CO5 | 3 | 2 | 1 | 1 | - | 2 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| Week-1<br>19.1.26 to 23.1.26<br>Week-2<br>26.1.26 to 30.1.26 | **Components of Interior Space-** Interior Treatment and Finishes | Interactive session with the students in the form of questions & answers | **Assignment :** (Group Work ) Reception and waiting area of large scale project<br>**(100 Marks)** | **CO-1, CO-2** | Students will be able to identify, evaluate, and apply suitable interior treatments and finishes to enhance the functionality and aesthetics of interior spaces. |
| Week-3<br>2.2.26 to 6.2.26<br>Week-4<br>9.2.26 to 13.2.26 | **Treatment of components –** floors, ceilings, partitions, window treatments, accessories for large scale projects. | Interactive session with the students in the form of questions & answers | | **CO-2** | Students will be able to understand and apply appropriate treatments for floors, ceilings, partitions, window treatments, and accessories in large-scale interior projects. |
| Week-5<br>16.2.26 to 20.2.26<br>Week-6<br>23.2.26 to 27.2.26 | **Components of Interior Space- Lighting and Landscaping-** Lighting : Interior lighting and their effects and suitability in different context **(Large Scale Projects)** | Interactive session with the students in the form of questions & answers | **Group work : Case Study** of landscape and lighting of large scale project.<br>**(100 Marks)** | **CO-3** | Students will be able to analyze and apply appropriate interior lighting strategies to enhance visual comfort, functionality, and spatial experience in large-scale projects. |

| | | | | | |
|---|---|---|---|---|---|
| Week-7<br><br>2.3.26 to 6.3.26<br><br>Week-8<br><br>9.3.26 to 13.3.26 | **Components of Interior Space- Lighting and Landscaping -** Landscaping : Interior landscaping elements like water, rocks, plants, lowers, fountains, artifacts, paving and use of these elements in design. Their physical properties and effects on spaces. **(Large Scale Projects)** | Interactive session with the students in the form of questions & answers | | **CO-3, CO-4** | Students will be able to understand and apply interior landscaping elements and their physical properties to enhance spatial quality and user experience in interior spaces. |
| Week-9<br><br>16.3.26 to 20.3.26 | **Components of Interior Space- Furniture:-** Furniture design as related to human comfort and function, materials and methods of construction, **(Large Scale Project)** | Interactive session with the students in the form of questions & answers | - | **CO-5** | Students will be able to understand and apply principles of furniture design related to human comfort, function, materials, and construction methods. |
| Week-10 | **Mid term Examination (23.3.26 to 27.3.26)** | | | | |
| Week-11<br><br>30.3.26 to 3.4.26 | **Components of Interior Space- Furniture:-** changing trends and lifestyles, innovations and design ideas - furniture for specific types of interiors: office furniture, children's furniture, | Interactive session with the students in the form of questions & answers | **Assignment : Working furniture design.**<br><br>Group work for – Of ice furniture, Children's furniture, and display systems.<br><br>**(100 Marks)** | **CO-5** | Students will be able to analyze changing lifestyles and design trends to select and design appropriate furniture solutions for specific interior types. |

| | | | | | |
|---|---|---|---|---|---|
| | residential furniture, display systems, etc **(Large Scale Project)** | | | | |
| Week-12<br>6.4.26 to 10.4.26 | **Interior design of large scale and mono functional spaces :** Airports, Hotel, Hospital, Large scale corporate office. | One to one interaction-based discussion with students. | **Project work** : Floor Plans<br>**(Progressive Marking out of 25 Marks)** | **CO-1** | Students will be able to understand and apply interior principles for designing the large-scale, mono-functional spaces such as airports, hotels, hospitals, and corporate offices. |
| Week-13<br>13.4.26 to 17.4.26 | | One to one interaction-based discussion with students. | **Project work:** Material Board<br>**(Progressive Marking out of 25 Marks)** | **CO-2** | |
| Week-14<br>20.4.26 to 24.4.26 | | One to one interaction-based discussion with students. | **Project work:** Colour scheme & Lighting Board **(Progressive Marking out of 25 Marks)** | **CO-3** | |
| Week-15<br>27.4.26 to 1.5.26 | | One to one interaction-based discussion with students. | **Project work:** Landscaping concept **(Progressive Marking out of 25 Marks)** | **CO-4** | |
| Week-16<br>4.5.26 to 8.5.26 | **Final Submission & Review** | Submission to be done by students. Review will be taken by the faculty. | **Project Final Submission : Assignment 4 :**<br>• Floor Plans<br>• Material Board<br>• Colour scheme<br>• Lighting Board<br>• Landscaping concept<br>**(500 Marks)** | **CO-1, CO-2, CO-3, CO-4, CO-5** | Students will be able to compile, present, and justify a complete interior design project through a final submission. |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Assignment | 200 Marks | Week-1 & Week-11 |
| Case-Study | 100 Marks | Week-5 |
| Final Project | 500 Marks | Week- 16 |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


**1)** McGraw-Hill,Space Planning for Commercial and Residential Interiors

**2)** McGraw-Interior Design Handbook of Professional Practice

**3)** Jonathan Poore -Interior Color by Design


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name- Ar. Neelam Shukla | Dean- Prof. Praveen Arora | Director- Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 02/01/2026 | Date 6/01/26 | Date 6/01/26 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 4th Yr. | SEMESTER: SEM - (EVEN SEMESTER) |
| SUBJECT CODE: AP-402 | SUBJECT TITLE: ARCHITECTURAL DESIGN VIII |
| SUBJECT TYPE: PRACTICAL | CREDITS: 12 |
| INTERNAL ASSESSMENT: 50 Marks | EXTERNAL ASSESSMENT (UE): 50 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 160 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

To Learn designing in City Scale, for Urban Design Interventions within city or in Extensions or for New Urban Design Schemes or Town Planning.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- CO-1-**Implement Public Space Theory in Urban Design:** Understand the concept of "Public Space" to create inclusive, safe, and accessible urban environments that enhance community interaction and engagement.
- CO-2-**Master Urban Design Vocabulary and Analytical Frameworks:** Familiarize students with key urban design terms while developing the ability to analyze urban form, spatial organization, and the built environment through case studies and site documentation.
- CO-3-**Address Complex Urban Realities through Architecture:** Define the architect's role in urban development by creating comprehensive proposals that address social, economic, cultural, and environmental challenges such as traffic congestion and urban clutter.
- CO-4-**Design Responsive Mixed-Use Urban Hubs:** Develop skills to design specialized urban hubs that integrate community centers, co-working spaces, and transit links while adhering to Master Plan of Delhi (MPD-2021) regulations.

**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 0 | 2 | 3 | 1 | 2 |
| CO2 | 2 | 0 | 3 | 2 | 1 | 3 |
| CO3 | 1 | 2 | 3 | 2 | 2 | 3 |
| CO4 | 2 | 2 | 2 | 3 | 2 | 3 |
| Average | 2 | 1 | 2.5 | 2.5 | 2 | 3 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | Lecture 1:<br>Introduction and understanding of Urban Design.<br><br>Introduction to the site.<br>Introduction to the Image of the City by Kevin Lynch – Presentation.<br>Study of a city on specific parameters (Kevin Lynch);<br><br>LECTURE 2: Site Briefing and briefing on preparation of base map<br><br>Urban Designer philosophy and work. | | Introduction to Urban Design.<br><br>Introduction to subject intent.<br><br>Urban Designer work presentation and discussion. | CO-1, CO-2 | |
| 2 | Site study and documentation | | Site Visit | CO-1 | |
| 3 | Site Analysis: Base map<br><br>Discussion on Base map, documentation and data collection. | | Site Analysis | CO-1, CO-2 | |
| 4 | Final analysis, issues and inferences | | Major review 5% | CO-1, CO-2 | |
| 5 | Lecture3: Urban design studies<br><br>Literature review, development controls, byelaws, case history, national and international Case Studies. | | Discussion and progressive Marking<br><br>5% | CO-1, CO-3 | |
| 6 | Case studies and literature study submission 5% | | | CO-1, CO-2, CO-3 | |
| 7 | Documentation and analysis:Intervention area conceptualization | Assessment and progressive marking 5% | | CO-1, CO-2, CO-3 | |

| | | | | |
|---|---|---|---|---|
| 8 | MID-TERM EXAMINATION | | CO-3 | |
| 9 | Delineation of intervention zones and concepts<br><br>Develop master plan | Concept plan | CO-3,CO-4 | |
| 10 | Lecture 4:Best practices in UD, research papers, case examples | Design development stage I<br><br>Building and cluster layout, building use,<br><br>Architectural character,<br><br>site sections, elevations, & surroundings, open spaces,<br><br>traffic and parking resolutions, other interventions etc<br><br>10% | CO-3,CO-4 | |
| 11 | Highlights –<br><br>1. Area Program for Intervention Area.<br><br>2. Progress zoning.<br><br>3. Final Massing.<br><br>4. Circulation Pattern.<br><br>5. Physical Model on suitable scale | Major Submission –<br><br>1. Area Program for Intervention Area.<br><br>2. Progress zoning.<br><br>3. Final Massing and detailing of one block<br><br>4. Circulation Pattern and movement.<br><br>5. Physical Model<br><br>20% | CO-2,CO-3,CO-4 | |
| 12 | Discussion and critical analysis | Discussion and critical analysis | CO-3,CO-4 | |

| | | | | |
|---|---|---|---|---|
| 13 | Design development stage II:PREFINAL<br><br>With model | Master Plan (including<br>Landscape) of Intervention Area<br>Traffic Circulation with parking<br>plan and road sections<br>Detailed<br>Building Blocks<br>Elevation and Sections of Site<br>and Individual Building Blocks<br>3D views and Physical Model 20% | CO-3,CO-4 | |
| 14 | Discussions | | CO-3,CO-4 | |
| 15 | Discussions and doubt clearing | | CO-3,CO-4 | |
| 16 | Final submission and jury | final submission and jury 30% | CO-3,CO-4 | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Quiz | - | - |
| Assignment | 35% | 3, 5,7,11,13 |
| Mid-term Review | 20% | 10 |
| Case-Study | 5% | 6 |
| End Term Exam | 50% | 16 |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) JACOBS, Jane, Death and lives of Great American cities, 2011.
2) Koolhaas, Rem, Delirious New York: A Retroactive Manifesto for Manhattan"1978.
3) Watson, D.(Editor), "Time-saver Standards for Urban Design", McGraw-Hill, 2003
4) Lynch John R, The Image of the City (Harvard-MIT Joint Center for Urban Studies Series), 1960
5) Correa Charles, Mehrotra Nondita Correa, A Place In The Shade: The New Landscape & Other Essays.
6) Alexander, Christopher et. al. A New Theory of Urban Design. New York: Oxford University Press, 1987. Bacon, Edmund N. Design of Cities. New York: Viking Press, 1974.
7) Rohatgi, A. (2024). Socio-cultural Anthropology in the Urban Built Environment in Place, Space and Time: its Reflections on Ethnography. (Context of Contemporary Delhi) CASS Studies (ARCH) Vol - 7, Issue 2, Addendum 1; July to Dec 2024. ISSN NO: 2581-6403.

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| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date 02-01-26 | Date 05-01-26 | Date 05-01-26 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 4th Yr. | SEMESTER: SEM - 8 (EVEN SEMESTER) |
| SUBJECT CODE: AP-404 | SUBJECT TITLE: BUILDING CONSTRUCTION VIII |
| SUBJECT TYPE: Practical | CREDITS: 05 |
| INTERNAL ASSESSMENT: 50 Marks | EXTERNAL ASSESSMENT (UE): 50 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 80 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

· To provide basic understanding of pre-stressing, post-tensioning, pre-fabrication and precast system inbuilding.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO1:** To provide a basic understanding of pre-stressing, post-tensioning, pre-fabrication, and precast systems in buildings.
- **CO2:** To learn and understand the principles of pre-stressing.
- **CO3:** To learn and understand the techniques involved in post-tensioning.
- **CO4:** To learn and understand pre-fabrication and precast systems.
- **CO5:** To understand large-span roofing systems in concrete or steel using lightweight roofing materials.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 1 | 3 | 2 | 2 | 2 | 2 |
| CO2 | 2 | 3 | 1 | 0 | 3 | 2 |
| CO3 | 2 | 3 | 1 | 0 | 0 | 3 |
| CO4 | 3 | 3 | 3 | 2 | 3 | 3 |
| CO5 | 3 | 3 | 3 | 1 | 3 | 2 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | Introduction to Course Syllabus: Pre-stressing, Post-tensioning, & Precast systems | Lecture & Book References | - | CO-1, CO-2, CO-3 | |
| 2 | Introduction to Prestressed Concrete & Precast systems | Lecture / Activities | **Assignment 1** (Literature Study) | CO-1, | Understanding of active reinforcement and tensioning equipment |
| 3 | Pre-tensioning and Post-tensioning: Process & Equipment | Lecture / Expert Session | Assignment 2 (Literature Study) | CO-2, CO-3 | Understanding of active reinforcement and tensioning equipment |
| 4 | Precast Concrete Elements: Foundation, Column, Beam, Wall, & Slab | Lecture & Exercise | **Assignment 3** (Literature Study) | CO-1, CO-2, | Ability to identify core precast components and their primary joinery. |

| | | | | | |
|---|---|---|---|---|---|
| 5 | Precast Concrete Joinery Details | Lecture / Activities | **Assignment 4** (Literature Study) | CO-1, CO-2, CO-3 | Ability to identify core precast components and their primary joinery. |
| 6 | Case Study / Site Visit<br><br>Expert Talk | Case Study / Activities | **Case Study Submission** | CO-1, CO-2, CO-3 | |
| 7 | Precast Foundation Connection Details: Foundation-Column/Plinth | Lecture / Exercise | **Assignment 4** (Housing Cluster) | CO-2, CO-3, CO-4, | Ability to identify core precast components and their primary joinery. |
| 8 | Precast Concrete Beam and Column Connection Details | Lecture / Activities | **Mid-Term Review (20%)** | CO-2, CO-3, CO-4, | Proficiency in drafting specific structural connections for foundations, walls, and slabs. |
| 9 | Precast Concrete Slab Connection Details: Slab-Slab / Slab-Wall | Lecture / Exercise | Assignment 6 (Housing Cluster) | CO-3, CO-4, | Proficiency in drafting specific structural connections for foundations, walls, and slabs. |
| 10 | Standard Precast Staircase Details | Lecture / Activities | **Assignment 7** (Housing Cluster) | CO-3, CO-4, | |
| 11 | Precast Wall Panel Connection Details & Door/Window Frames | Lecture & Exercise | Assignment 8 (Housing Cluster) | CO-3, CO-4, | |
| 12 | **Pre-Final Review**: Review of all previous submissions | **PRE-FINAL** | Submission Review 30% | | |

| | | | | | |
|---|---|---|---|---|---|
| 13 | **Large Span Roof Details (Concrete/Steel)** | Lecture / Activities | Assignment 9 (Individual Work) | CO-3, CO-4, | Competency in detailing lightweight, long-span structural systems. |
| 14 | **Final Review**: Comprehensive Review of Portfolio | Review Session | **Assignment 10** | CO-3, CO-4,CO-5 | |
| 15 | **Final Portfolio Compilation** | Review Session | Final Portfolio 40%<br><br>ATTENDANCE 10% | CO-3, CO-4,CO-5 | Compile a comprehensive technical portfolio that demonstrates the ability to scale precast logic from individual components to a housing cluster or large-scale building. |
| 16 | **Final Portfolio Compilation** | **FINAL JURY** | | CO-3, CO-4,CO-5 | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Quiz | - | - |
| Assignment | 45% | 2, 4,5,7,10,14 |
| Mid-term Review | 05% | 8 |
| Case-Study | 5% | 6 |
| End Term Exam | 50% | 16 |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Levitt, M. (1982). *Precast concrete: Materials, manufacture, properties and usage.* Taylor & Francis.
2) Elliott, K. S. (2016). *Precast concrete structures* (2nd ed.). CRC Press.
3) Elliott, K. S., & Magill, M. (2024). *Precast prestressed concrete for building structures.* CRC Press.
4) Precast/Prestressed Concrete Institute. (2023). *PCI design handbook: Precast and prestressed concrete* (9th ed.).

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| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name Prof. Alpna Rohagi | HOD / Dean/ Deputy Director Prof. Praveen Arora | Director Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 02-01-26 | Date 06-01-26 | Date 06-01-26 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 4th Yr. | SEMESTER: SEM - (EVEN SEMESTER) |
| SUBJECT CODE: AP-406 | SUBJECT TITLE: DISSERTATION(RESEARCH PAPER) |
| SUBJECT TYPE: PRACTICAL | CREDITS: 08 |
| INTERNAL ASSESSMENT: 50 Marks | EXTERNAL ASSESSMENT (UE): 50 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 64 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- The objective of Dissertation is to learn the process of adding something new to the existing body of knowledge. This may involve any aspect of architecture.
- Dissertation is intended for students to learn and apply on the fundamentals of research methods and learn to critically evaluate or discuss issues, or make new propositions based on research. This would enlighten students on the fundamentals of research methodology. It should preferably add to the existing body of knowledge.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- CO-1-**Research Methodology:** Apply fundamental academic research methods, including formulation of research questions and data collection.
- CO-2-**Critical Evaluation:** Conduct literature and case study reviews to identify knowledge gaps and support architectural propositions.
- CO-3-**Problem Solving:** Identify specific issues within the architectural design realm and develop evidence-based solutions for built design morphology.
- CO-4-**Academic Communication:** Master formal technical writing and ethical research practices to produce a comprehensive 5,000-word dissertation.

**CO-PO MAPPING -**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 0 | 0 | 2 | 1 | 2 |
| CO2 | 2 | 0 | 3 | 2 | 1 | 3 |
| CO3 | 1 | 2 | 2 | 2 | 2 | 3 |
| CO4 | 3 | 2 | 2 | 2 | 2 | 3 |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | Lecture 1:Lecture: Overview of research writing, types of dissertations, importance of academic research. | Tutorial: Discussing students' research interests.<br>To introduce students to the fundamentals of research writing. | Discussion on the lecture and last semester takeaways. | CO-1, CO-2 | |
| 2 | Lecture 2: Choosing a research topic, narrowing down research questions.<br><br>Tutorial: Brainstorming sessions to identify potential research topics. | Choosing a research topic,<br>Working out research questions<br>identify and refine their research topics. | Assignment 1: Submission of 150-200 word **synopsis** on your chosen topic.<br>5% | CO-1 | |
| 3 | Synopsis Discussion and Topic finalization | Synopsis writing | | CO-1, CO-2 | |
| 4 | Lecture 3:Literature review: how to conduct a literature review<br><br>Finding and summarizing relevant literature. | Discussion and progressive Marking | On attendance 2.5% | CO-1, CO-2 | |
| 5 | Review-Presentation on **Literature Review** | **Literature review 1** | Submission (5%) | CO-1, CO-3 | |
| 6 | **Lecture 4**: Data collection methods - surveys, interviews, experiments.<br>Case studies (literature study and live) submission | | | CO-3 | |

| | | | | | |
|---|---|---|---|---|---|
| 7 | Lecture 5: Case examples of research papers, ethics in research writing, peer-review process | Assessment and progressive marking | On attendance 2.5% | CO-1, CO-2, CO-3 | |
| 8 | **MID-TERM EXAMINATION** | | **Draft 1:** Abstract (100-150 words) Paper(2000 words) 5% | CO-3 | |
| 9 | Case studies Documentation and analysis: research methodology (Primary and Secondary research) | research methodology | Case studies Documentation submission 10% | CO-3,CO-4 | |
| 10 | **Major review 2 Submission** broad outline Aim, objective, abstract, scope, limitations, | Presentation Anatomy of the paper, including chapterisation. | 10% | CO-3,CO-4 | |
| 11 | **Review and discussions** | Finalisation of chapters and content. Presentation | Marking and review | CO-2,CO-3,CO-4 | |
| 12 | **Review and discussions** | Presentation continued | Marking and review | CO-3,CO-4 | |
| 13 | | Presentation continued | Marking and review | CO-3,CO-4 | |
| 14 | **PRE-FINAL SUBMISSION** | **DRAFT REPORT** | 20% | CO-3,CO-4 | |
| 15 | continued | Draft Report – Progress Review | | CO-3,CO-4 | |
| 16 | **FINAL SUBMISSION AND JURY** | **FINAL SUBMISSION AND JURY** | FINAL REPORT HARD BOUND (APPROX. 5000 WORDS) 40% | CO-3,CO-4 | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Quiz | - | - |
| Assignment | 45% | 2, 4,5,7,10,14 |
| Mid-term Review | 05% | 8 |
| Case-Study | 5% | 6 |
| End Term Exam | 50% | 16 |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Borden, I., & Rüedi Ray, K. (2014). *The dissertation: A guide for architecture students* (3rd ed.). Routledge.
2) Groat, L. N., & Wang, D. (2013). *Architectural research methods* (2nd ed.). John Wiley & Sons.
3) Lucas, R. (2016). *Research methods for architecture*. Laurence King Publishing.
4) Rohatgi, A. (2024). *Socio-cultural Anthropology in the Urban Built Environment in Place, Space and Time: its Reflections on Ethnography. (Context of Contemporary Delhi)* CASS Studies (ARCH) Vol - 7, Issue 2, Addendum 1; July to Dec 2024. ISSN NO: 2581-6403.


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name Prof. Alpna Rohagi | HOD / Dean/ Deputy Director Prof. Praveen Arora | Director Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 02-01-26 | Date 05-01-26 | Date 05-01-26 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR : 4th Yr. | SEMESTER: SEM - (EVEN SEMESTER) |
| SUBJECT CODE: AP-422 | SUBJECT TITLE: TOWN PLANNING (II) |
| SUBJECT TYPE: THEORY | CREDITS: 02 |
| INTERNAL ASSESSMENT: 25 Marks | EXTERNAL ASSESSMENT (UE): 75 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 32 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**
The primary objective of this study is to familiarize students with the fundamental concepts and systematic processes involved in urban and regional planning. By exploring these frameworks, students gain a comprehensive understanding of the physical and spatial aspects that dictate how cities are structured, organized, and expanded. This includes analyzing the layout of urban environments and the deliberate placement of zones to ensure functional and sustainable living spaces.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- CO-1-Analyze Urban Planning Frameworks: To equip students with the ability to evaluate fundamental planning concepts and the technical processes involved in urban and regional development, focusing on the integration of physical and spatial design.
- CO-2-Assess Urban Challenges and Infrastructure: To enable students to critically examine the impact of out-population, housing shortages, and infrastructure deficits on city functionality and the overall quality of urban life.
- CO-3-Evaluate Demographic and Growth Trends: To train students in analyzing the socio-economic and demographic profiles of towns and cities to forecast future needs and develop data-driven strategies for sustainable growth.

**CO-PO MAPPING -**
**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 3 | 0 | 2 | 2 | 2 | 0 |
| CO2 | 3 | 1 | 3 | 2 | 2 | 3 |
| CO3 | 2 | 0 | 2 | 3 | 2 | 3 |

# MBS COLLEGE

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**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**


**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC -CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1 | Lecture 1: **Introduction to Town Planning**<br>• Concept & Need of Town Planning<br>• Objectives of Town Planning<br>• Elements and Principles of Town Planning<br>• Growth of Town<br>Stages of Town Development | Interactive session with the students in the form of questions & answers | Discussion on the lecture and last semester takeaways. | CO-1, CO-2 | To understand the relevance and importance of this course |
| 2 | Lecture 2: **UNIT-1 :Rules , Regulations & Factors of Planning**<br>• Forms of Planning- Local/ Country/ Regional/ National / International<br>• Planning Process<br>• Planning Theories<br>Ancient Indian Towns | Interactive session with the students in the form of questions & answers | Assignment 1: **Planning Concepts with Case Study of any Indian City.**<br>Marks :5<br>Format : PPT/ Video | CO-1, CO-2 | Describe basic legal concepts and processes affecting plan making and developme nt assessment . |

| | | | | | |
|---|---|---|---|---|---|
| 3 | : **UNIT-1 :Rules , Regulations & Factors of Planning**<br>• Terminologies<br>• Rules and Regulations for development controls<br>• Factors Guiding the framing of various Plans<br>• Development Authorities , CRZ & SEZ | **Group Presentation –Planning Concepts with Case Study of any Indian City.** | | CO-1, CO-2 | Describe basic legal concepts and processes affecting plan making and development assessment . |
| 4 | **UNIT 2 :Development Plan**<br>• Planning process,<br>• Concept of master plan,<br>• Elements master plan,<br>• Preparation and Implementation procedure | Group Presentation –Planning Concepts with Case Study of any Indian City. | | CO-1, CO-3 | Able to understand and refer Master plan as per the requirement . |
| 5 | **UNIT 2 :Planning Standards**<br>• Zoning<br>• Land Use, Height ,Density rules Roads and Community Facility . | Interactive session with the students in the form of questions & answers | Submission (5%) | CO-3 | Analyze and able to understand the planning standards and importance of its practical implementation |
| 6 | **UNIT 2 :Competent Authorities**<br>Roles and compositions of various Component Authorities involved in Approval procedures | Interactive session with the students in the form of questions & answers | | CO-3 | Identify and assess the concerned Competent Authority |

| | | | | | |
|---|---|---|---|---|---|
| 7 | **REVISION**<br><br>UNIT-1 :Rules , Regulations & Factors of Planning<br>UNIT-2:Development Plan, Planning Standards&Competent Authorities | **Group Presentation– Types of Survey required for Town Planning and review any type of survey Form.** | On attendance 5% | CO-1, CO-2, CO-3 | Identify and assess the concerned Competent Authority |
| 8 | **UNIT 3 :Housing as basic fabric of Town Planning**<br>• Importance of Housing<br>• Demand and Supply of Housing<br>• Existing Scenario and Housing Problem In India. | **Group Presentation– Types of Survey required for Town Planning and review any type of survey Form.** | Assignment 2: **Types of Survey required for Town Planning and review any type of survey Form**<br>Marks 5<br>Format: PPT/ Video | CO-3 | Will learn new Terminologies of Planning related to Housing |
| 9 | **UNIT 3 :Housing as basic fabric of Town Planning**<br>• Residential Neighborhood -Planning concepts<br>• Requirements of Residential building<br>• Classification of Residential Buildings | Interactive session with the students | | CO-1, CO-2, CO-3 | Apply design concepts and processes for planning of urban neighborhoods and precincts. |
| 10 | **UNIT 3 :Housing as basic fabric of Town Planning**<br>• National Housing Policy Objectives , Important Features , Criticism<br>• Pradhan Mantri Awas Yojna Urban PMAY- U & EWS Housing Scheme | Interactive session with the students | | CO-1, CO-2, CO-3 | Acquire a solid base of knowledge regarding Housing parameter in Town Planning |
| 11 | **MID TERM WEEK** | TEST | MARKS 10 | CO-1, CO-2, CO-3 | |

| | | | | | |
|---|---|---|---|---|---|
| 12 | UNIT 4 :Traffic &Transportation<br>• Importance of Traffic and Transportation in Town Planning<br>• Objects of Urban Road<br>• Requirement & Factors of Transportation<br>• Classification of Urban Roads<br>• Types of Road System | Interactive session with the students | | CO-1, CO-2 | Develop the skills necessary for the effective practice of planning wrt Traffic and Transportation in Town Planning. |
| 13 | **UNIT 4 :Planning legislation & Housing Acts**<br>• Importance & Need of Planning Legislation<br>• Objectives and Components of DC System<br>• Evolution of Planning Legislation<br>• Review of Planning Legislation of India & UK Acts – Land Acquisition, Housing, etc | Interactive session with the students | Marking and review | CO-3 | The student should be able to distinguish Planning legislation of India and UK |
| 14 | REVISION<br><br>UNIT-3 :Housing as basic fabric of Town Planning<br>UNIT 4 :Traffic & Transportation<br><br>Planning legislation & Housing Acts | **Group Presentation-Distinguish Planning legislation of India and UK wrt different parameters.** | **Distinguish Planning legislation of India and UKwrt different parameters.**<br>Marks – 5<br>Format: PPT/ Video | CO-2, CO-3 | Research planning literature and apply knowledge gained to practical town planning problems. |
| 15 | REVISION AND MOCK PAPER | Assessments and Progress Review | On attendance 5% | CO-1, CO-2, CO-3 | |
| 16 | REVISION AND MOCK PAPER | Assessments and Progress Review | | CO-1, CO-2, CO-3 | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Quiz | - | - |
| Assignment | 30% | 2, 8,14 |
| Mid-term Review | 20% | 11 |
| Case-Study | - | |
| End Term Exam | 50% | After 16 weeks |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1) Rangwala, S.C., Town Planning, Charotar Publishing House, Anand.
2) N.V.Modak, V.N.Ambedkar,Town and country planning and Housing,orient longman, 1971
3) Urban and Regional Development Plans Formulation and Implementation Guidelines (URDPFI) Guidelines
4) Modak & Ambedkar (1971) Town and Country Planning & Housing, Orient Longman Ltd.
5) MPD2021 .


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name Prof. Alpna Rohagi | HOD / Dean/ Deputy Director Prof. Praveen Arora | Director Prof. Bijay Dash |
| Signature | Signature | Signature |
| Date 02-01-26 | Date 06.01.2026 | Date 06.01.2026 |

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**B. ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY- 2025-2026**

| | |
|---|---|
| YEAR: **2026** | SEMESTER: **EVEN (8th Sem)** |
| SUBJECT CODE: **AP-448** | SUBJECT TITLE: **UNIVERSAL ACCESS ENABLED ENVIRONMENT** |
| SUBJECT TYPE: **ELECTIVE** | CREDITS: **3** |
| INTERNAL ASSESSMENT: **40 Marks** | EXTERNAL ASSESSMENT (UE): **60 Marks** |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS: **16 WEEKS- 48 HOURS** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus) -**

Universal barrier free access is a mandatory part of the architectural environment. It is the basic human right to be able to access any place without any hindrance.

**COURSE OBJECTIVES (CO) SPECIFIC-**

- **CO1: Analyze the Principles of Universal Design and Models of Disability.** Understand the evolution from the medical model to the social model of disability and apply the seven principles of Universal Design to evaluate human-environment interaction systems.
- **CO2: Apply Anthropometrics and Standards to Barrier-Free Design.** Utilize anthropometric data and international/national standards (building codes) to determine space requirements for diverse users, including those with physical, sensory, or cognitive impairments.
- **CO3: Design Inclusive Internal and External Built Environments.** Develop architectural solutions for site planning, vertical circulation (lifts/stairs), and specialized zones (toilets/signage) that ensure seamless access from the road to the building's interior.
- **CO4: Conduct Comprehensive Access Audits and Simulation Exercises.** Execute audit methodologies to identify barriers in existing structures and use simulation exercises to empathize with user constraints, leading to evidence-based design interventions.
- **CO5: Evaluate Statutory Provisions and Emerging Trends in Universal Access.** Appraise the constitutional and legal frameworks governing accessibility while exploring innovative technologies and "best practices" in barrier-free transportation and tourism.

**CO-PO MAPPING-**

**(3 point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No. | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1: **Analyze the Principles of Universal Design and Models of Disability** | 3 | 2 | 1 | - | - | - |
| CO2: **Apply Anthropometrics and Standards to Barrier-Free Design** | 2 | 1 | - | - | 3 | 2 |
| CO3: **Design Inclusive Internal and External Built Environments** | 2 | 3 | - | 2 | 3 | 3 |
| CO4: **Conduct Comprehensive Access Audits and Simulation Exercises** | 1 | - | 3 | 3 | 2 | 1 |
| CO5: **Evaluate Statutory Provisions and Emerging Trends in Universal Access** | - | 3 | 2 | 1 | 1 | - |

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**WEEKLY SCHEDULE**

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1st week | Introduction to the syllabus | Lecture & Visual Presentation | | **CO1- CO2** | To understand the need for Barrier Free Design – rising concerns, statistical study, and aged population increase. |
| 2nd week | Importance and need for Barrier Free Design-<br>• Defining Barrier and Dimension of Barrier in Physical, Psychological and social aspects<br>• Types of Disability | Discussion on various Case examples | | **CO2-CO4** | Develops ethically grounded and socially relevant design practice by understanding the social model of disability. |
| 3rd week | • Approaches toward Disability<br>• Universal Design Principle and aspect | Lecture and Discussion | **Assignment 1: Literature Study Report Submission** | **CO1-CO3** | Enables students to design context-responsive built environments that are functional and aesthetic for all users. |
| 4th week | • Medical Model and Social Model<br>• Study of Human Environment Interaction system | Presentations, Videos and surveys based on user | **Assignment 2: Report on Internet Case Study data compilation** | **CO2** | Enables students to design context-responsive built environments that are functional and aesthetic for all users. |
| 5th week | • Development of Barrier Free initiatives taken across the globe.<br>• Norms and Standards | Best practices (national and International) | **Assignment 3: Report on Live Case Study data** | **CO3-CO4** | Prepares students through knowledge of building bye-laws, safety |

| | | | | | |
|---|---|---|---|---|---|
| | for Barrier Free Design Anthropometrics | | **compilation** | | regulations, and statutory provisions. |
| 6TH week | • Approach and Methodology | Review /Discussion | | **CO4** | |
| 7th week | • Simulation Exercise<br>• Best Practice in Barrier-Free Design. | Review /Discussion | | **CO3-CO5** | Enables students to design context-responsive built environments that are functional and aesthetic for all users. |
| 8th week | Students presentation/ Viva on their Reports | | | **CO3** | |
| 9th week | Students presentation/ Viva on their Reports | | | **CO4** | |
| 10th week | **MID-TERM EXAMINATION** | | | | |
| 11th week | • Design consideration (or Internal and External Environment)<br>• Site Planning, Parking, Approach to Plinth Levels, Corridors, entrance and exit, windows, stairways, Lift, toilets, signage, guiding and warning system floor materials | Lecture and Discussion | | **CO3-CO4** | Equips students with sound knowledge of construction, materials, and services (signage, lifts) for safe and efficient buildings. |
| 12th week | • Design elements outside the building<br>• Accessing Footpath from the road and Public facilities Signage | | | **CO4** | . |
| 13th week | Constitutional and Statutory provisions to implement Barrier Free Design | | | **CO3** | Uses real-world problem-solving and simulation to encourage innovative design solutions for existing environments. |
| 14th week | Barrier-Free Transportation and Barrier-Free Tourism | | | **CO3** | Discusses exhaustively the best practices in the field of universal |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | building, transportation system and urban design across the globe. |
| 15th week | Access Audit-Case Study and give a solution to an Existing environment | Revision Lecture | | **CO1-CO5** | Explains the steps of conducting and access audit by citing practical examples and referring to actual national and international level work that has been done. |
| 16th week | Final Submission | Group Viva | **Final Report Submission** | | |

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Assignments (3 reports) | **40 Marks** | |
| **Final Report Submission** | | 16th week, 2026 |
| **EXTERNAL JURY** | **60 Marks** | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. Accessibility for the Disabled - A Design Manual for a Barrier Free Environment by United nation [available online] http://www.un.org/esa/socdev/enable/designm/index.html
2. Bednar, M.J., Barrier Free Environments.
3. Harkness, S., Building without Barriers for the Disabled.
4. Manual on Barrier Free Environment, CPWD.
5. The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Smita Patra | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature |
| Date: 14 January 2026 | Date 14-01-26 | Date 14-01-26 |

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**B.ARCH. PROGRAM: TEACHING SCHEDULE: FOR AY-2025-2026**

| | |
|---|---|
| YEAR:**2026** | SEMESTER:**EVEN (8thSem)** |
| SUBJECTCODE:**AP-454** | SUBJECTTITLE: **ARCHITECTURAL CONSERVATION** |
| SUBJECTTYPE:**ELECTIVE** | CREDITS:**3** |
| INTERNALASSESSMENT:**40Marks** | EXTERNALASSESSMENT(UE):**60Marks** |
| NO.OFHOURSALLOTTEDTOCOMPLETETHESYLLABUS:**16WEEKS-48HOURS** | |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

The field of Architectural Practice is intensely interdisciplinary in nature and the aspects of Heritage Conservation or Historic Precincts one of the inseparable components to be taken into consideration; hence it is most inevitable to include the aspects of Heritage Conservation in the Architectural Pedagogy.

**COURSE OBJECTIVES (CO)-**

**CO1: Theoretical Principles:** Analyze the evolution of conservation theories, ethics, and international charters (UNESCO, ICCROM) that form the basis for decision-making in heritage practice.

**CO2: National Context & Policy:** Evaluate the role of Indian agencies like the AS Iand INTACH ,and understand the legal legislation and management frame works governing conservation in India.

**CO3: Documentation &Assessment:** Demonstrate the ability to list monuments and document historic structures to assess their architectural character and create historic structure reports.

**CO4: Technical Interventions:** Identify and apply appropriate conservation interventions, including preservation, rehabilitation, adaptive reuse, and seismic retrofitting for historic buildings.

**CO5: Planning & Management:** Utilize conservation as a planning tool, incorporating financial incentives like Transferable Development Rights (TDR) and managing heritage tourism.

**CO-POMAPPING-**

**(3-pointscale-1=Awareness/Basicknowledge,2=Average/Intermediate,3=Advanced/Strongcorrelation)**

| CONo. | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1:TheoreticalPrinciples | - | - | 2 | 3 | 1 | - |
| CO2:NationalContext&Policy | - | - | 1 | 2 | 3 | - |
| CO3:Documentation&Assessment | 3 | 2 | 2 | 1 | 1 | - |
| CO4:TechnicalInterventions | 2 | 3 | 2 | - | 2 | 1 |
| CO5:Planning&Management | 1 | - | - | 1 | 3 | 3 |

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**WEEKLYSCHEDULE**

| WEEK | UNIT/TOPIC-CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/CASE STUDIES/ EXPERT SESSIONETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| 1st week | Syllabus Introduction Lecture on-Introduction to Heritage Conservation-Need, Types approach | Lecture & Visual Presentation | - | **CO1** | To understand why we conserve and the evolution of the field. |
| 2nd week | Defining Conservation, preservation and adaptive reuse | Lecture and Discussion | Selecting a state in India, Identifying Heritage and Heritage Precincts along with the level of importance | **CO1** | Define and differentiate between various degrees of intervention such as **Preservation, Restoration, Reconstruction, and Adaptive Reuse.** |
| 3rd week | Discussion on the Assigned Task-Selecting a state in India, Identifying Heritage and Heritage Precincts along with the level of importance | Lecture and Discussion | - | **CO1,CO3** | Explain the historical evolution of conservation theories to contemporary critical restoration. |
| 4th week | Conservation principles and ethics. Role of International and National Agencies in conservation | | Demarcating the various heritage/ heritage precincts and stating the Role of Various Agencies Involved in their conservation and management, Finalizing the Content of the report | **CO2,CO3** | Interpret and apply international doctrines and charters (e.g., Venice Charter, Burra Charter, Nara Document) to local heritage contexts. |
| 5th week | Discussion and Review On the Assigned Task- | Documentation-History, | | **CO1-CO3** | To accurately Record heritage for future generations. Demonstrate proficiency in **Heritage Documentation** techniques. |

| | | | | | |
|---|---|---|---|---|---|
| | Demarcating the various heritage/heritage precincts and stating the Role of Various Agencies Involved in their conservation and management | Architecture, Assessing the need for conservation, Architectural Character, Factors causing deterioration, Structural report. | | | |
| 6th week | STAGE-1 Identification of any 4 Heritage/Heritage Precincts(based on level of importance-International, National, State and Local) in the selected state for case study – Data Collection | Discussion- Best practices (national and International) | **Evaluation on Documentation** | **CO2-CO4** | To know how to Conduct historical research using primary and secondary sources (archives, maps, oral histories)to establish a building's **Statement of Significance.** |
| 7th week | Conservation in India, Museums, monuments etc. Progress Discussion-Stage-1 | Lecture and Discussion | | **CO2-CO4** | To diagnose the "health" of a historic structure. Analyze the causes of deterioration (pathology)by correlating environmental factors with material behavior. |
| 8th week | Discussion on Documentation | | | | Create comprehensive "Listing" formats for individual buildings and heritage precincts. |
| 9th week | **MAJOR REVIEW-STAGE1** | **EVALUATION OF REPORT** | | | |
| 10th week | **MID-TERMEXAMINATION** | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 11th week | STAGE-2 Approach to Conservation, Seismic Retrofitting, Disabled access, Additions etc. | Lecture and Discussion | | **CO1-CO4** | Evaluate the structural stability of historic masonry and timber systems. Recommend specific repair techniques, such as grouting, pointing, and cleaning, using compatible traditional materials. |
| 12th week | Discussion-National and International Charter, Progress Discussion-Stage-2 (Heritage of International Importance- World Heritage site) | Visual display along with students' interaction | | **CO1-CO4** | To design and manage the survival of heritage. |
| 13th week | Progress Discussion-Stage-2 (Heritage of national Importance-Under ASI) | | | **CO1-CO3** | |
| 14th week | Discussion on designing in Historic Context and Urban Conservation<br><br>Progress Discussion-Stage-2 (Heritage of national Importance-Under ASI) and under Local Govt. | Lecture and interactive session along with pictorial representation | | **CO1-CO5** | Propose appropriate Adaptive Reuse strategies that respect the Spirit of Place while ensuring economic viability. |
| 15th week | **STAGE-2 MAJOR REVIEW** | **EVALUATION OF REPORT** | | | |
| 16th week | Discussion- Heritage Tourism and Conservation as a planning tool<br><br>STAGE-3- Issues and Challenges in the Identified Heritage/Heritage Precincts (Site Management, Funding, Risk Preparedness) | Discussion on previous topics/ Doubt clearing session | | **CO5** | Formulate a Conservation Management Plan that balances heritage values with modern functional requirements. |
| | **FINAL REPORT SUBMISSION AND REVIEW** | **FINAL EVALUATION AND MARKING** | | | |

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| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| Assignments Score | 30 % | After Every Unit |
| Mid-term Assessments | 50 % | Around 10th Week |
| Attendance Score | 20 % | End of Semester |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. Orbasli Aylin; Architectural Conservation: Principles and Practice, Wiley Blackwell,2007.
2. WeilerKatharina;AuthenticityinArchitecturalHeritageConservation:Discourses,Opinions,ExperiencesinEurope,SouthandEastAsia,Springer,2016
3. Yang Minja; Don't Tear it Down! Preserving the Earthquake RESISTANT Vernacular Architecture of Kashmir, Oinfroin Media,2009.
4. Feilden Bernard; Conservation of Historic Buildings, Routledge, 1982.
5. Cohen Nahoum; Urban Conservation, MITPress, 1999.
6. Jodidio Philip;The AgaKhanHistoricCitiesProgramme:StrategiesforUrbanRegeneration,Prestel,2011.
7. Douet James; Industrial Heritage Re-tooled: The TICCIH Guide to Industrial Heritage conservation, Routledge, 2015.
8. Park Seong-Yong; On Intangible Heritage Safe guarding Governance: An Asia Pacific Context, CambridgeScholarsPublishing,2013
9. Antonio Ampil and Melchor Senen; Urban Conservation and Development: Sustaining the Spirit of Place,OpenDissertationPress,2017
10. Donald Apple yard, "The Conservation of European Cities", M.I.T. Press, Massachusetts,1979.
11. James M. Fitch," Historic Preservation: Curatorial Management of the Built World" University Press of Virginia;Reprintedition,1990
12. Robert E. Stipe, A Richer Heritage: Historic Preservation in the Twenty-First Century "Univ. of NorthCarolingpress,2003.
13. Conservation Manual, Bernard Fielden; INTACH Publication, 1989.
14. B.K Singh," State and Culture", Oxford, New Delhi
15. A.G.K. Menoned."Conservation of Immovable Sites", INTACH Publication,N.Delhi.,1988
16. Seminar Issue on Urban Conservation
17. INTACH Charter
18. Handbook of Conservation of Heritage Buildings(CPWD)
19. "Conservation of immovable sites" by AGK Menon
20. "State and Culture" B.K Singh


| PREPARED BY | REVIEWED BY | APPROVED BY |
|---|---|---|
| Faculty Name: Ar Smita Patra | Dean : Ar Praveen Arora | Director: Prof. Bijay Dash |
| Signature: | Signature: | Signature: |
| Date: 14 January 2026 | Date 14.01.26 | Date 14.01.26 |

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## B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY 2025-26

| | |
|---|---|
| YEAR: 5th Yr. | SEMESTER: SEM 10 (EVEN SEMESTER) |
| SUBJECT CODE: AP-502 | SUBJECT TITLE: ARCHITECTURAL THESIS |
| SUBJECT TYPE: STUDIO | CREDITS: 26 |
| INTERNAL ASSESSMENT: 50 Marks | EXTERNAL ASSESSMENT (UE): 50 Marks |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**
Thesis is a capstone project demonstrating the level of academic learning achieved by the students. This is a guided self-study course in which students are expected to explore any of the architectural issues they were exposed to during the academic programme to a greater level of resolution and sophistication.

**COURSE OBJECTIVES (CO) SPECIFIC-**

**CO1** – To **recall** and document relevant architectural theories, principles, standards, codes, and precedents applicable to the selected thesis topic.

**CO2** – To **demonstrate** understanding of the socio-cultural, environmental, technological, and historical context influencing the architectural problem.

**CO3** – To **apply** research findings, design principles, building regulations, and sustainability strategies to develop the architectural programme and preliminary design proposals.

**CO4** – To **analyse** site conditions, user requirements, spatial relationships, structural systems, services, and precedents to formulate design parameters.

**CO5** – To **assess** alternative design solutions based on functionality, constructability, sustainability, aesthetics, contextual fit, and compliance with standards.

**CO6** – To **create** a comprehensive, innovative, and well-resolved architectural thesis project integrating research, analysis, evaluation, and professional documentation.

**CO-PO MAPPING - (3-point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | 1 | - | - | 3 | 3 | - |
| CO2 | 2 | - | 2 | 3 | - | - |
| CO3 | 3 | 2 | 2 | - | 3 | - |
| CO4 | 3 | - | - | - | - | 2 |
| CO5 | 3 | 3 | 3 | - | 2 | - |
| CO6 | 3 | 3 | 3 | - | - | 3 |

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**WEEKLY SCHEDULE**

| WEEK | BRIEF SYNOPSIS OF LECTURE/ STUDIO EXERCISE | SUBMISSION / ASSIGNMENT | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|
| 1st Week | **Discussion with Panel & FINALIZATION OF TOPIC** | Synopsis Submission | **CO-1, CO-2** | Critically appraise and apply appropriate research methods for critically analysis of research and Case studies. |
| 2nd Week | Allotment of Guide after Finalization of Topic | Research Progress of Work Attendance | **CO-1, CO-2, CO-3, CO-4, CO-5** | |
| 3rd Week (3rd & 6th Feb 2026) | **ANUGOONJ** | | | |
| 4th Week (10th & 12th Feb 2026) | **Stage-01 PANEL REVIEW**<br>**LITERATURE REVIEW**<br>• About Project/ Building Typology<br>• Components<br>• Development Norms<br>• Space Standards<br><br>**CASE STUDIES**<br>Primary Source (Minimum 3)<br>Secondary Source (Minimum 3)<br>Comparative Analysis<br><br>**SITE ANALYSIS & Site Model**<br>- Site Considerations<br><br>FORMAT: A1 SHEETS<br>SCALE: SUITABLE & LEGIBLE | Literature Review (200)<br><br>Case Studies (400)<br><br>Site Analysis (400) | | |
| 5th Week (17th & 20th Feb 2026) | **DISCUSSION with Guide / Panel**<br>Progressive Marking | Research Progress of Work | | |
| 6th Week (24th & 27th Feb 2026) | **Stage-02 PANEL REVIEW**<br>• Introduction<br>• Detailed Space and Area Program (From Comparative Analysis of Case studies and Space Standards)<br>• Concept & Zoning (Horizontal & Vertical)<br>• Site Planning<br>• Sketches & Schematic Site sections | Introduction (200)<br><br>Detail Space and Area Program (200)<br><br>Concept & Zoning (200)<br><br>Schematic Site Planning (200) | **CO-1, CO-2, CO-3, CO-4, CO-5** | Define and develop a design brief and generate design for process-led design evolution and that demonstrate functional and futuristic architectural design ready to complete in all aspects. |

| | | | | |
|---|---|---|---|---|
| | **Selection of Elective (Any 1)**<br>• Landscape<br>• Interior<br>• Specification & Estimation<br>**Selection of Services (Any 1)**<br>• Electrical<br>• Plumbing<br>• HVAC<br>• Fire Fighting<br>• Automation<br><br>FORMAT: A1 SHEETS<br>SCALE: SUITABLE & LEGIBLE | Sketches & Schematic sections (100)<br><br>Overall Presentation (100) | | |
| 7th Week (3rd & 6th March 2026) | **DRAFT REPORT SUBMISSION (to Guide)** | Format (100), Structure(100) Compilation of Work(300) | **CO-1, CO-2, CO-3, CO-4** | Able to write a technically sound report for their thesis |
| 8th Week (10 & 13th March 2026) | **DISCUSSION with GUIDE/ Panel**<br>Progressive Marking | Research Progress of Work | | |
| 9th Week (17th & 20th March 2026) | **S-03 PANEL REVIEW**<br>• SITE PLAN<br>• SITE LAYOUT PLAN (with Ground floor of all Blocks)<br>• SITE SECTIONS<br>• ALL FLOOR PLANS (all Blocks)<br>• PARKING LAYOUTS<br>• BLOCKS ELEVATIONS<br>• BLOCKS SECTIONS<br>• BLOCK MODEL<br><br>FORMAT: A1 SHEETS<br>SCALE: SUITABLE & LEGIBLE | SITE PLAN (100)<br>SITE LAYOUT PLAN (100)<br>SITE SECTIONS (100)<br>ALL FLOOR PLANS(300)<br>PARKING LAYOUTS (100)<br>BLOCKS ELEVATIONS (100)<br>BLOCKS SECTIONS(100)<br>BLOCK MODEL(100) | **CO-1, CO-2, CO-3, CO-4** | Interpret and contextualize architectural problems by examining socio-cultural, environmental, climatic, technological, and historical factors influencing the built environment. |
| 10th Week (24th to 27th March 2026) | **MID-TERM EXAMINATION** | | | |
| 11th Week (30th March to 3rd April 2026 ) | **DISCUSSION with GUIDE/ Panel**<br>Progressive Marking | Research Progress of Work | | |
| 12th Week (7th & 10th April 2026) | **DISCUSSION with GUIDE/ Panel**<br>Progressive Marking | Research Progress of Work | | |

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| | | | | |
|---|---|---|---|---|
| 13th Week (14th & 17th April 2026) | **S-04 PANEL REVIEW**<br><br>**PRE FINAL Submission**<br>(Complete Set of Drawings)<br><br>**Details of Elective (Any 1)**<br>• Landscape<br>• Interior<br>• Specification & Estimation<br>**Detail of Services (Any 1)**<br>• Electrical<br>• Plumbing<br>• HVAC<br>• Fire Fighting<br>• Automation<br><br>FORMAT: A1 SHEETS<br>SCALE: SUITABLE & LEGIBLE | Complete Set of Drawings (1000)<br><br>**Details of Elective (500)**<br><br>**Details of Services (500)** | **CO-1, CO-2, CO-3, CO-4, CO-5, CO-6** | Analyse complex site conditions, user needs, spatial systems, structural logic, and building services to derive informed and coherent design solutions. |
| 14th Week (21st &24th April 2026) | **UPDATED REPORT SUBMISSION (to Guide)** | Format (100), Structure (100) Compilation of Work (300) | | |
| 15th Week (28th April & 1st May 2026) | **S-05 FINAL REVIEW**<br>Complete Set of Rendered Drawings including Elective and Service details<br><br>FORMAT: A1 SHEETS<br>SCALE: SUITABLE & LEGIBLE | | **CO-1, CO-2, CO-3, CO-4, CO-5, CO-6** | Analyse complex site conditions, user needs, spatial systems, structural logic, and building services to derive informed and coherent design solutions. |
| 16th Week (5th & 8th May 2026) | **FINAL HARD BOUND REPORT**<br>(with Complete Set of Rendered Drawings) to Supervisor<br>**THESIS MODEL**<br>SCALE: SUITABLE & LEGIBLE<br>**FINAL PORTFOLIO SUBMISSION**<br>(Complete Set of Rendered Drawings) for Stamping and Signature | | | |

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## LEARNING OUTCOMES

On completion of this module, students are expected to:

- Critically appraise and apply appropriate research methods for critically analysis of research and Case studies.
- Define and develop a design brief and generate design for process-led design evolution and that demonstrate functional and futuristic architectural design ready to complete in all aspects.
- Critically and objectively appraise the outcome in relation to theoretical concepts, and the selected context and setting for the project.
- Communicate design intentions effectively by verbal presentation and multi-media techniques, to a professional level.

| PANEL | | GUIDE | |
|---|---|---|---|
| Stage -01 (Week 3) | 1000 | Week - 2 | 100 |
| Stage -02 (Week 5) | 1000 | Week - 4 | 100 |
| Stage -03 (Week 9) | 1000 | Week 6 (Draft Report) | 500 |
| Stage -04 (Week 13) | 2000 | Week 7 , 8 | 200 |
| Stage -05 (Week 15) | 5000 | Week 11 & 12 | 200 |
| | | Week 14 (Updated Report) | 500 |
| | | Week 16 (Final Report) | 2000 |
| | | Attendance & Punctuality | 400 |
| TOTAL | 10,000 | Total | 4000 |

## SUGGESTED BOOKS/READINGS:

1. Time Saver Standards and Neufert
2. NBC (for fire safety norms regarding staircase, exists, Lifts, Washrooms etc.)
3. Building Byelaws

| PREPARED BY | STUDIO CO-ORDINATORS | REVIEWED BY | APPROVED BY |
|---|---|---|---|
| Faculty Name : Ar. Amrita Kaur, Ar. Srammana | Ar. Jyoti, Ar. Amrita, Er. Kapil, Ar. Richa | Dean : Prof. Praveen Arora | Director: Prof. Bijay Dash |
| Signature: | Signature: | Signature | Signature |
| Date : 02/01/2026 | 5/01/2026 | Date 06.01.26 | Date 06.01.26 |

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**B. ARCH. PROGRAM; TEACHING SCHEDULE: FOR AY- 2025-26**

| | |
|---|---|
| YEAR: 2025-26 | SEMESTER: SEM – X (EVEN SEMESTER) |
| SUBJECT CODE: AP- 522 | SUBJECT TITLE: PROFESSIONAL PRACTICE |
| SUBJECT TYPE: THEORY | CREDITS: 4 |
| INTERNAL ASSESSMENT: 50 Marks | EXTERNAL ASSESSMENT (UE): 50 Marks |
| NO. OF HOURS ALLOTTED TO COMPLETE THE SYLLABUS | 64 |

**GENERAL OBJECTIVE- (As per GGSIPU Syllabus)-**

- The general objective of this course is to **equip architecture students with a comprehensive understanding of professional practice**, enabling them to function responsibly, ethically, and effectively within the architectural profession.
- The syllabus also intends to impart knowledge of the **economic realities of practice**, including fee structures, contracts, liabilities, negotiations, arbitration, and modes of professional engagement.

**COURSE OBJECTIVES (CO) SPECIFIC-**

**CO1** – Recall fundamental concepts related to architectural professional practice, including the definition of a profession, the Architect's Act 1972, registration procedures, professional bodies, rules, regulations, and codes of conduct governing architectural practice.

**CO2** – Explain the legal, ethical, economic, and social responsibilities of architects, including the role of professional institutions, professional conduct, fee structures, contracts, and the socio-economic context of architectural practice in India.

**CO3** – Apply professional practice knowledge to real-life situations by interpreting conditions of engagement, drafting basic agreements, understanding scale of charges, modes of payment, office procedures, and coordination between clients, consultants, and project managers.

**CO4** – Apply professional practice knowledge to real-life situations by interpreting conditions of engagement, drafting basic agreements, understanding scale of charges, modes of payment, office procedures, and coordination between clients, consultants, and project managers.

**CO5** – Evaluate professional practices, ethical issues, dispute resolution mechanisms, and office management systems to make informed judgments in compliance with statutory regulations, professional ethics, and best practices.

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**CO-PO MAPPING - (3-point scale- 1 = Awareness/Basic knowledge, 2 = Average/Intermediate, 3 = Advanced/Strong correlation)**

| CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CO1 | --- | - | - | 2 | 3 | - |
| CO2 | 1 | - | - | 2 | 3 | 1 |
| CO3 | 2 | - | - | - | 3 | - |
| CO4 | 2 | - | - | 3 | 3 | - |
| CO5 | 1 | - | - | 3 | 3 | 2 |

## WEEKLY SCHEDULE

| WEEK | UNIT/TOPIC - CONTENT | TEACHING METHODOLOGY (LECTURE/ ACTIVITIES/ EXERCISE/ CASE STUDIES/ EXPERT SESSION ETC.) | ASSIGNMENT (with Marks) | COURSE OBJECTIVES ACHIEVED | LEARNING OUTCOME |
|---|---|---|---|---|---|
| **Week 1st** | **Introduction to the subject and governing bodies related to architecture** | Lecture, PPT Presentation | ---------- | CO1, CO2 | Understand and interpret the legal, ethical, and professional framework governing architectural practice in India, including the Architect's Act, codes of conduct, and statutory bodies. |
| **Week 2nd** | **Introduction to Professional Practice**<br>**- Overview of Professional Practice in Architecture**<br><br>**Ethical Considerations and Professional Responsibility**<br><br>**Regulatory Frameworks and Licensing**<br><br>**Ethical considerations required in the profession**<br><br>**Balancing creative vision with practical realities and client demands** | Lecture, PPT Presentation | **Interactive session:** to explore the important skills required for success in an architecture firm. | | |

| | | | | | |
|---|---|---|---|---|---|
| | **Time management and meeting deadlines in a fast-paced environment**<br><br>**Professional practice and how architecture is considered a profession** | | | | |
| Week 3rd | **Anugoonj** | **4thFeb 2026 to 6th Feb 2026** | | | |
| Week 4th | • **History: The Architect's Act 1972**<br>• **Key aspects of Architect's Act 1972**<br>• **Process of Registration** | Lecture, PPT Presentation | A write-up on **"Their understanding about Architect's Act 1972"** **Marks: 50** | CO2, CO3 | |
| Week - 5th - 6th | **Professional Liability: Roleplay Activity within the class**<br>**Roles Involved:**<br><br>**Client (individual, developer, or institution)**<br><br>**Architect (lead architect / design consultant)**<br><br>**Contractor, structural consultant**<br><br>**authority representative - MEP consultant, Surveyor** | Class Activity, Group Discussion | **Marks: 50** | CO4 | - Understanding the client's **needs, budget, and expectations**<br>-Translating client requirements into **design concepts**<br>-Managing **constraints** (site, regulations, time, cost)<br>-Handling **design changes and negotiations**<br>- Maintaining **professional ethics and communication** |
| Week 7th | **Legal Aspects: Contracts, Intellectual Property Rights,** | PPT Presentation using Smart board & Discussion | **Draft a basic services contract; Case study on IP issues.** | | Apply professional practice principles related to fees, contracts, conditions of engagement, office |

| | | | | | |
|---|---|---|---|---|---|
| | **Risk Management, and Insurance.** | | **Marks: 50** | | management, and coordination in real-world architectural scenarios. |
| Week 8th | **Council of Architecture (COA): Roles, Rules, Code of Professional Practice, and Membership.** | | | CO3, CO4, CO5 | |
| Week 9th | **Guest Lecture by an Expert Ar. Puneet Sethi /Ar. Charanjeet Shah** | Physical Mode | | | |
| Week 10th | **MID-TERM Exam** | | | | |
| Week 11th | **Marketing & Business Development: Strategies, Client Relations, and Branding.** | PPT Presentation using Smart board & Discussion | **Research/Case study on a notable project (Ethics/Regulatory focus).** | CO3, CO4, CO5 | Analyze and evaluate professional responsibilities, liabilities, dispute resolution mechanisms, and ethical issues encountered in architectural practice. |
| Week 12th | **Architecture Competitions: Guidelines, Eligibility, Board of Assessors, and Registration.** | PPT Presentation using Smart board & Discussion | ---------- | | |
| Week 13th | **Conditions of engagement and professional liability/indemnity.** | PPT Presentation using Smart board & Discussion | Review COA website for professional documents. | | |
| Week 14th | **Project Management: Planning, Budgeting, Documentation; Scale of fees; Office organizational structures.** | PPT Presentation using Smart board & Discussion | Project management plan; Analysis of construction documents. | CO3, CO5 | Demonstrate preparedness for professional practice by developing basic professional documents and understanding organizational and managerial aspects of an architect's office. |
| Week 15th | **Emerging Trends: Technology (BIM, AI, VR), Social Impact, and Future Career Paths.** | Lecture | Interactive session; Personal development plan. | CO3, CO5 | |

| | | | | | |
|---|---|---|---|---|---|
| Week 16th | **Doubt Clearing session, Revision, and solving previous year papers.** | | | | |

**SUGGESTED BOOKS/READINGS/REFERENCES:**


1. Handbook of Professional Documents published by the Council of Architecture.

2. Nanavati R. (1993) Professional Practice, Lakhani Book Depot.

3. Kahr J & Thomsett MC (2005) Real Estate Market Valuation and Analysis, Wiley Publishers.

4. Gelbtuch HC, Mackmin D & Gelbtuch M (1997) Real Estate Valuation in Global Markets, Chicago: Appraisal Institute.


## List of Deliverables

| ASSESSMENT TYPE | WEIGHTAGE | TENTATIVE WEEK |
|---|---|---|
| **Assignment** | **50** | **W**eek5, Week 6, Wee 7, Week 9 |
| **Mid-term Review** | | Week 10 |
| **End Term Exam** | **50** | |

| PREPARED BY | SUBJECT FACULTY | REVIEWED BY | APPROVED BY |
|---|---|---|---|
| Faculty Name: Ar. Sramana, Ar. Richa | Ar. Jyoti | HOD / Dean/ Deputy Director | Director |
| Signature | Signature | Signature | Signature |
| Date 02/01/2026 | Date 05/01/2026 | Date 06/01/2026 | Date 06/01/2026 |

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## Lesson Plan (2025-2026)

### BBA SEM -I

| S.No. | Course Title | Course Code |
|---|---|---|
| 1 | Management Process & Organizational Behaviour | BBA 101 |
| 2 | Business Mathematics | BBA 103 |
| 3 | Financial Accounting & Analysis | BBA 105 |
| 4 | Business Economics | BBA 107 |
| 5 | Entrepreneurial Mindset (NUES) | BBA 109 |
| 6 | Life Skills & Personality Development (NUES) | BBA 111 |
| 7 | IT Applications in Business | BBA 113 |

### BBA SEM-II

| S.No. | Course Title | Course Code |
|---|---|---|
| 1 | Marketing Management | BBA 102 |
| 2 | Decision Techniques for Business | BBA 104 |
| 3 | Human Resource Management | BBA 106 |
| 4 | Business Communication | BBA 108 |
| 5 | E-Commerce | BBA 112 |
| 6 | Indian Knowledge Systems | BBA 118 |

### BBA SEM-III

| S.No. | Course Title | Course Code |
|---|---|---|
| 1 | Business Environment and Law | BBA 201 |
| 2 | Production and Operations Management | BBA 203 |
| 3 | Business Research Methodology | BBA 205 |
| 4 | Consumer Behavior (Marketing elective) | BBA 209 |
| 5 | Foundation of Entrepreneurship and Startups (ED elective) | BBA 215 |
| 6 | Stock Market & Investment Planning (Course Basket) | BAECO213 |

### BBA SEM-IV

| S.No. | Course Title | Course code |
|---|---|---|
| 1 | Cost & Management Accounting | BBA 202 |
| 2 | Business Analytics | BBA 204 |
| 3 | Sales and Channel Management (Marketing elective) | BBA 210 |
| 4 | Opportunity & Feasibility Analysis (ED elective) | BBA 216 |
| 5 | Sustainability Practices (option in place of BBA 206) | BBA 218 |
| 6 | Corporate Communication (MDC) | BA(JMC)208 |



# MBS COLLEGE

## SCHOOL OF BUSINESS ADMINISTRATION

### Lesson Plan for Management Process and Organizational Behaviour

| Programme :BBA(G) | Semester: I | Paper Code:17101 | Academic Year: 2025-26 |
|---|---|---|---|

**Program Outcomes**
**After the program the students will be able to:**
PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values

PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Program Specific Outcomes**
**After the program the students will be able to:**
PSO 1. Develop proficiency in technical operations of Banking and Insurance organization.
PSO 2. Demonstrate critical thinking and innovative ability to deal with problems in Banking and Insurance industry
PSO 3. Exhibit Negotiation skills and networking abilities to market and promote products in Banking and Insurance industry
PSO 4. Appraise social, legal and economic implications of Banking and Insurance Sector.

**Objective:** The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of management.

**Course Outcomes:**

CO1. Explore the evolution of the concepts of management
CO2: Examine the relevance of the theories of Motivation
CO3: Analyze the significance of Organization and Individual Behavior
CO4: Analyse and relate individual, team and group behavior
CO5: Exhibit leadership qualities by building effective teams
CO6: Comprehend dynamics of human behavior

**CO-PO MAPPING**

**BBA 101 Management process and Organizational Behavior**

| Program level Outcomes | | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO 1 | PSO 2 | PSO 3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | Explore the evolution of the concepts of management | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO2 | Examine the relevance of the theories of Motivation | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO3 | Analyze the significance of Organization and Individual Behavior | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO4 | Analyse individual, team and group behavior | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO5 | Exhibit leadership qualities by building effective teams | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO6 | Comprehend dynamics of human behavior | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| AVG | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

The Table depicts the degree of relation between course outcomes and the programme outcomes The letters "3" indicate high degree of relationship of CO with PO; The letters "2" indicate moderate degree of relationship of CO with PO; The letters "1" indicate low degree of relationship of CO with PO; Where 3= Excellent, 2= Good, 1= Little

# LESSON PLAN (SECTION-B)

| L. No. | Lecture Objective | Unit | Topic/ Module detail with sub Topics | Methodology | Reference /Text Book | Date on which delivered | Sign. |
|---|---|---|---|---|---|---|---|
| 1 | To discuss the Syllabus and provide the overview of management | UNIT- I | Management: Concept, Nature, Process and Significance | Lecture, Exercise | T-1 | 19-8-25 | PD |
| 2 | To make the students aware of skills required by managers | UNIT- I | Managerial levels, Management Skills, Functions and Roles, | Lecture, Exercise | T-2 | 20-8-25 | PD |
| 3 | To make the students aware of importance of management | UNIT -I | Significance of Management | Lecture | T-1 | 20-8-25 | PD |
| 4 | To make the students aware of skills required by manager and Administrator | UNIT- I | Management vs Administration | Lecture | T-2 | 21-8-25 | PD |
| 5 | Discuss the Evolution of Management Thought | UNIT- I | Classical Approach- Taylor, Fayol | Lecture | T-2 | 26-8-25 | PD |
| 6 | Discuss the Evolution of Management Thought | UNIT- I | Neo-Classical | Lecture | T-2 | 27-8-25 | PD |
| 7 | Discuss the Evolution of Management Thought | UNIT- I | Human Relations Approaches, Behavioural Approach | Lecture | T-2 | 27-8-25 | PD |
| 8 | Discuss the Evolution of Management Thought | UNIT- I | Systems Approach, Contingency Approach | Lecture | T-2 | 2-9-25 | PD |
| 9 | To make the students aware of MBO | UNIT- I | MBO | Lecture | T-2 | 3-9-25 | PD |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 10 | To understand Business Process Re-engineering | UNIT- I | Meaning ,concept & process of Business Process Re-engineering | Lecture | T-2 | 10/9/25 | |
| 11 | Discuss the importance of Coordination | UNIT- I | Coordination as essence of Management | Lecture | T-3 | 12/9/25 | |
| 12 | To refreeze the lessons learnt | UNIT- I | Revision | Discussion | | 17/9/25 | |
| 13 | To define planning & discuss the importance of planning | UNIT- II | Planning Nature, Scope and Objectives of Planning | Lecture | T-3 | 19/9/25 | |
| 14 | To explain the various types and techniques of planning. | UNIT- II | Types of plans; Planning Process. Techniques of Planning | Lecture | T-4 | 23/9/25 | |
| 15 | To explain Strategic planning | UNIT- II | Strategic planning | Lecture | T-4 | 24/9/25 | |
| 16 | To explain Environmental Analysis and diagnosis (Internal and external environment) | UNIT- II | Environmental Analysis and diagnosis (Internal and external environment) | Lecture | T-4 | 25/9/25 | |
| 17 | Discuss the concept and process of Decision Making. | UNIT –II | Techniques of Decisions making ,Process of decision making | Lecture | T-1 | 26/9/25 | |
| 18 | Discuss the Bounded Rationality | UNIT- II | Bounded Rationality | Lecture, Exercise | T-2 | 30/9/25 | |
| 19 | To explain various Organizing concept | UNIT -II | Organizing concept ,Principles of an organization | Lecture | T-3 | 1/10/25 | |
| 20 | To explain various Organizing concept | UNIT -II | Process of organizing | Lecture | T-3 | 5/10/25 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 21 | To discuss Span of Control, | UNIT- II | Span of Control, | Lecture | T-4 | 8/10/25 | |
| 22 | To discuss Departmentation | UNIT- II | Departmentation | Lecture | T-4 | 9/10/25 | |
| 23 | To discuss Different types of authority (line, staff and functional) | UNIT- II | Line authority | Lecture | T-4 | 10/10/25 | |
| 24 | To discuss Different types of authority (line, staff and functional) | UNIT- II | Staff authority | Lecture | T-4 | 14/10/25 | |
| 25 | To discuss Different types of authority (line, staff and functional) | UNIT- II | Functional authority | Lecture | T-4 | 15/10/25 | |
| 26 | To introduce the concept of decentralization and delegation | UNIT- II | Delegation | Lecture | T-2 | 16/10/25 | |
| 27 | To introduce the concept of decentralization and delegation | UNIT- II | Decentralization | Lecture | T-2 | 17/10/25 | |
| 28 | To discuss the types of organization | UNIT- II | Principles of organizating | Lecture | T-1 | 28/10/25 | |
| 29 | To discuss the types of organization | UNIT- II | Types of organization | Lecture | T-1 | 31/10/25 | |
| 30 | To refreeze the lessons learnt | UNIT- II | Revision | Discussion | T-3 | 7/11/25 | |
| 31 | To know the practical application of Individual Behaviour | UNIT-III | Concept of Personality | Case Study | T-1 | 11/11/25 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 32 | To know the practical application of Individual Behaviour | UNIT-III | Personality- Type A and B | Case Study | T-1 | 12/11/25 | |
| 33 | To know the practical application of Individual Behaviour | UNIT-III | Factors influencing Personality | Case Study | T-1 | 13/11/25 | |
| 34 | To know the concept and nature of learning and its importance | UNIT-III | Learning | Lecture | T-1 | 14/11/25 | |
| 35 | To discuss the various theories of learning | UNIT-III | Learning theories | Lecture | T-1 | 18/11/25 | |
| 36 | To discuss the practical application of Learning | UNIT-III | Learning Practices | Case Study | T-1 | 19/11/25 | |
| 37 | To know what is social perception & explain the factors that effects it & to find out the barriers to social perception | UNIT-III | Perception | Lecture | T-1 | 20/11/25 | |
| 38 | To know what is social perception & explain the factors that effects it & to find out the barriers to social perception | UNIT-III | Factors influencing Perception | Lecture | T-1 | 21/11/25 | |
| 39 | To assess the perceptual errors | UNIT-III | Perception, Process and errors | Lecture, Exercise | T-1 | 26/11/25 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 40 | How attitudes are formed & to find out the relationship between attitude and behaviour | UNIT-III | Attitudes Formation | Lecture | T-1 | 27/11/25 | |
| 41 | How attitudes are formed & to find out the relationship between attitude and behaviour | UNIT-III | Components of attitude | Lecture | T-1 | 2/12/25 | |
| 42 | How attitudes are formed & to find out the relationship between attitude and behaviour | UNIT-III | job related attitudes | Lecture | T-1 | — | |
| 43 | How Personality formed | UNIT-III | Individual determinants like personality | Lecture, Exercise | T-1 | — | |
| 44 | To assess learning perception | UNIT-III | Learning perception and Attitude with Behavior | Interactive | T-1 | — | |
| 45 | To revise Unit-III | UNIT-111 | Revision | Discussion | T-2 | — | |
| 46 | To define motivation & explain its types. | UNIT-1V | Motivating and Leading: Nature and Importance of Motivation | Lecture | T-2 | — | |
| 47 | To focus on types of Motivation | UNIT-1V | Types of Motivation. | Lecture | T-1 | — | |
| 48 | To explain how Maslow's theory works | UNIT-1V | Theories of Motivation: Maslow theory | Interactive | T-2 | — | |
| 49 | To explain Herzberg theory and also to X& Y theory. | UNIT-1V | Herzberg, X, Y and Z | Lecture/ Exercise | T-1 | — | |
| 50 | To discuss the Leadership | UNIT-1V | Nature and Importance of Leadership | Lecture/ Exercise | T-1 | — | |
| 51 | To discuss the Leadership | UNIT-1V | Theories of Leadership | Lecture | T-1 | ✓ | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 52 | To discuss the Power and conflict | UNIT-1V | Meaning and concept of Power and conflict | Lecture | T-1 | | |
| 53 | To discuss the Power tactics | UNIT-1V | Power tactics | Lecture | T-1 | | |
| 54 | To understand the Organizational Culture and climate | UNIT-1V | Organizational Culture and climate | Lecture | T-1 | | |
| 55 | Concept and determinants of organizational culture | UNIT-1V | Concept and determinants of organizational culture | Lecture | T-1 | | |
| 56 | Query handling | UNIT-I-IV | Queries | Discussion | ---- | | |
| 57 | Query handling | UNIT-I-IV | Queries | Discussion | ---- | | |
| 58 | To reiterate the concepts already learnt | UNIT-I-IV | Previous Years Question Paper Discussion | Discussion | ---- | | |
| 59 | To reiterate the concepts already learnt | UNIT-I-IV | Previous Years Question Paper Discussion | Discussion | ---- | | |
| 60 | To reiterate the concepts already learnt | UNIT-I-IV | Previous Years Question Paper Discussion | Discussion | ----- | | |

## Reference /Text book:

T 1.Chhabra, T. N. (2nd Ed., 2012). Management Process and Organizational Behaviour, Sun India Publications.

T2. Gupta, CB (1st Edition 2018) Management Process and Organizational Behaviour , S Chand Publication

T3.Aswathappa, K. , and Sudarshan Reddy, G. (2nd Ed., 2012). Management and Organizational Behaviour , Himalaya Publishing House.

T4. Robbins, S.P.and Sanghi,S. Fundamentals of Management : Essentials concepts and Applications, Pearson Educations

## Website referred:

1. https://www.managementstudyguide.com/what_is_management.

**Name & Sign. of Faculty**

# MBS COLLEGE

## SCHOOL OF BUSINESS ADMINISTRATION

### Lesson Plan for Management Process and Organizational Behaviour

| Programme :BBA(G) | Semester: I | Paper Code:17101 | Academic Year: 2025-26 |
|---|---|---|---|

**Program Outcomes**
**After the program the students will be able to:**
PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values

PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Program Specific Outcomes**
**After the program the students will be able to:**
PSO 1. Develop proficiency in technical operations of Banking and Insurance organization.
PSO 2. Demonstrate critical thinking and innovative ability to deal with problems in Banking and Insurance industry
PSO 3. Exhibit Negotiation skills and networking abilities to market and promote products in Banking and Insurance industry
PSO 4. Appraise social, legal and economic implications of Banking and Insurance Sector.

**Objective:** The course aims at providing fundamental knowledge and exposure to the concepts, theories and practices in the field of management.

**Course Outcomes:**

CO1. Explore the evolution of the concepts of management
CO2: Examine the relevance of the theories of Motivation
CO3: Analyze the significance of Organization and Individual Behavior
CO4: Analyse and relate individual, team and group behavior
CO5: Exhibit leadership qualities by building effective teams
CO6: Comprehend dynamics of human behavior

**CO-PO MAPPING**

**BBA 101 Management process and Organizational Behavior**

| Program level Outcomes | | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PSO 1 | PSO 2 | PSO 3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | Explore the evolution of the concepts of management | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO2 | Examine the relevance of the theories of Motivation | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO3 | Analyze the significance of Organization and Individual Behavior | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO4 | Analyse individual, team and group behavior | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO5 | Exhibit leadership qualities by building effective teams | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| CO6 | Comprehend dynamics of human behavior | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| AVG | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

The Table depicts the degree of relation between course outcomes and the programme outcomes The letters "3" indicate high degree of relationship of CO with PO; The letters "2" indicate moderate degree of relationship of CO with PO; The letters "1" indicate low degree of relationship of CO with PO; Where 3= Excellent, 2= Good, 1= Little

# LESSON PLAN (SECTION-A)

| L. No. | Lecture Objective | Unit | Topic/ Module detail with sub Topics | Methodology | Reference /Text Book | Date on which delivered | Sign. |
|---|---|---|---|---|---|---|---|
| 1 | To discuss the Syllabus and provide the overview of management | UNIT- I | Management: Concept, Nature, Process and Significance | Lecture, Exercise | T-1 | 19-8-25 | |
| 2 | To make the students aware of skills required by managers | UNIT- I | Managerial levels, Management Skills, Functions and Roles, | Lecture, Exercise | T-2 | 20-8-25 | |
| 3 | To make the students aware of importance of management | UNIT -I | Significance of Management | Lecture | T-1 | 20-8-25 | |
| 4 | To make the students aware of skills required by manager and Administrator | UNIT- I | Management vs Administration | Lecture | T-2 | 21-8-25 | |
| 5 | Discuss the Evolution of Management Thought | UNIT- I | Classical Approach- Taylor, Fayol | Lecture | T-2 | 26-8-25 | |
| 6 | Discuss the Evolution of Management Thought | UNIT- I | Neo-Classical | Lecture | T-2 | 27-8-25 | |
| 7 | Discuss the Evolution of Management Thought | UNIT- I | Human Relations Approaches, Behavioural Approach | Lecture | T-2 | 27-8-25 | |
| 8 | Discuss the Evolution of Management Thought | UNIT- I | Systems Approach, Contingency Approach | Lecture | T-2 | 2-9-25 | |
| 9 | To make the students aware of MBO | UNIT- I | MBO | Lecture | T-2 | 3-9-25 | |

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|---|---|---|---|---|---|---|---|
| 10 | To understand Business Process Re-engineering | UNIT- I | Meaning ,concept & process of Business Process Re-engineering | Lecture | T-2 | 10/9/25 | PD |
| 11 | Discuss the importance of Coordination | UNIT- I | Coordination as essence of Management | Lecture | T-3 | 12/9/25 | PD |
| 12 | To refreeze the lessons learnt | UNIT- I | Revision | Discussion | | 17/9/25 | PD |
| 13 | To define planning & discuss the importance of planning | UNIT- II | Planning Nature, Scope and Objectives of Planning | Lecture | T-3 | 19/9/25 | PD |
| 14 | To explain the various types and techniques of planning. | UNIT- II | Types of plans; Planning Process. Techniques of Planning . | Lecture | T-4 | 23/9/25 | PD |
| 15 | To explain Strategic planning | UNIT- II | Strategic planning | Lecture | T-4 | 24/9/25 | PD |
| 16 | To explain Environmental Analysis and diagnosis (Internal and external environment) | UNIT- II | Environmental Analysis and diagnosis (Internal and external environment) | Lecture | T-4 | 25/9/25 | PD |
| 17 | Discuss the concept and process of Decision Making. | UNIT –II | Techniques of Decisions making ,Process of decision making | Lecture | T-1 | 26/9/25 | PD |
| 18 | Discuss the Bounded Rationality | UNIT- II | Bounded Rationality | Lecture, Exercise | T-2 | 30/9/25 | PD |
| 19 | To explain various Organizing concept | UNIT -II | Organizing concept ,Principles of an organization | Lecture | T-3 | 1/10/25 | PD |
| 20 | To explain various Organizing concept | UNIT -II | Process of organizing | Lecture | T-3 | 3/10/25 | PD |

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|---|---|---|---|---|---|---|---|
| 21 | To discuss Span of Control, | UNIT- II | Span of Control, | Lecture | T-4 | 8/10/25 | PD |
| 22 | To discuss Departmentation | UNIT- II | Departmentation | Lecture | T-4 | 9/10/25 | PD |
| 23 | To discuss Different types of authority (line, staff and functional) | UNIT- II | Line authority | Lecture | T-4 | 10/10/25 | PD |
| 24 | To discuss Different types of authority (line, staff and functional) | UNIT- II | Staff authority | Lecture | T-4 | 14/10/25 | PD |
| 25 | To discuss Different types of authority (line, staff and functional) | UNIT- II | Functional authority | Lecture | T-4 | 15/10/25 | PD |
| 26 | To introduce the concept of decentralization and delegation | UNIT- II | Delegation | Lecture | T-2 | 16/10/25 | PD |
| 27 | To introduce the concept of decentralization and delegation | UNIT- II | Decentralization | Lecture | T-2 | 17/10/25 | PD |
| 28 | To discuss the types of organization | UNIT- II | Principles of organizating | Lecture | T-1 | 28/10/25 | PD |
| 29 | To discuss the types of organization | UNIT- II | Types of organization | Lecture | T-1 | 31/10/25 | PD |
| 30 | To refreeze the lessons learnt | UNIT- II | Revision | Discussion | T-3 | 7/11/25 | PD |
| 31 | To know the practical application of Individual Behaviour | UNIT-III | Concept of Personality | Case Study | T-1 | 11/11/25 | PD |

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|---|---|---|---|---|---|---|---|
| 32 | To know the practical application of Individual Behaviour | UNIT-III | Personality- Type A and B | Case Study | T-1 | 12/11/25 | |
| 33 | To know the practical application of Individual Behaviour | UNIT-III | Factors influencing Personality | Case Study | T-1 | — | |
| 34 | To know the concept and nature of learning and its importance | UNIT-III | Learning | Lecture | T-1 | — | |
| 35 | To discuss the various theories of learning | UNIT-III | Learning theories | Lecture | T-1 | — | |
| 36 | To discuss the practical application of Learning | UNIT-III | Learning Practices | Case Study | T-1 | — | |
| 37 | To know what is social perception & explain the factors that effects it & to find out the barriers to social perception | UNIT-III | Perception | Lecture | T-1 | — | |
| 38 | To know what is social perception & explain the factors that effects it & to find out the barriers to social perception | UNIT-III | Factors influencing Perception | Lecture | T-1 | — | |
| 39 | To assess the perceptual errors | UNIT-III | Perception, Process and errors | Lecture, Exercise | T-1 | — | |

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|---|---|---|---|---|---|---|---|
| 40 | How attitudes are formed & to find out the relationship between attitude and behaviour | UNIT-III | Attitudes Formation | Lecture | T-1 | | |
| 41 | How attitudes are formed & to find out the relationship between attitude and behaviour | UNIT-III | Components of attitude | Lecture | T-1 | | |
| 42 | How attitudes are formed & to find out the relationship between attitude and behaviour | UNIT-III | job related attitudes | Lecture | T-1 | | |
| 43 | How Personality formed | UNIT-III | Individual determinants like personality | Lecture, Exercise | T-1 | | |
| 44 | To assess learning perception | UNIT-III | Learning perception and Attitude with Behavior | Interactive | T-1 | | |
| 45 | To revise Unit-III | UNIT-111 | Revision | Discussion | T-2 | | |
| 46 | To define motivation & explain its types. | UNIT-1V | Motivating and Leading: Nature and Importance of Motivation | Lecture | T-2 | | |
| 47 | To focus on types of Motivation | UNIT-1V | Types of Motivation. | Lecture | T-1 | | |
| 48 | To explain how Maslow's theory works | UNIT-1V | Theories of Motivation: Maslow theory | Interactive | T-2 | | |
| 49 | To explain Herzberg theory and also to X& Y theory. | UNIT-1V | Herzberg, X, Y and Z | Lecture/ Exercise | T-1 | | |
| 50 | To discuss the Leadership | UNIT-1V | Nature and Importance of Leadership | Lecture/ Exercise | T-1 | | |
| 51 | To discuss the Leadership | UNIT-1V | Theories of Leadership | Lecture | T-1 | | |

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|---|---|---|---|---|---|---|---|
| 52 | To discuss the Power and conflict | UNIT-1V | Meaning and concept of Power and conflict | Lecture | T-1 | | |
| 53 | To discuss the Power tactics | UNIT-1V | Power tactics | Lecture | T-1 | | |
| 54 | To understand the Organizational Culture and climate | UNIT-1V | Organizational Culture and climate | Lecture | T-1 | | |
| 55 | Concept and determinants of organizational culture | UNIT-1V | Concept and determinants of organizational culture | Lecture | T-1 | | |
| 56 | Query handling | UNIT-I-IV | Queries | Discussion | ---- | | |
| 57 | Query handling | UNIT-I-IV | Queries | Discussion | ---- | | |
| 58 | To reiterate the concepts already learnt | UNIT-I-IV | Previous Years Question Paper Discussion | Discussion | ---- | | |
| 59 | To reiterate the concepts already learnt | UNIT-I-IV | Previous Years Question Paper Discussion | Discussion | ---- | | |
| 60 | To reiterate the concepts already learnt | UNIT-I-IV | Previous Years Question Paper Discussion | Discussion | ----- | | |

## Reference /Text book:

T 1.Chhabra, T. N. (2nd Ed., 2012). Management Process and Organizational Behaviour, Sun India Publications.

T2. Gupta, CB (1st Edition 2018) Management Process and Organizational Behaviour , S Chand Publication

T3.Aswathappa, K. , and Sudarshan Reddy, G. (2nd Ed., 2012). Management and Organizational Behaviour , Himalaya Publishing House.

T4. Robbins, S.P.and Sanghi,S. Fundamentals of Management : Essentials concepts and Applications, Pearson Educations

## Website referred:

1. https://www.managementstudyguide.com/what_is_management.

Dr. Prabhjot Kaur

Prabhjot

**Name & Sign. of Faculty** **HOD** **Director**

SECTION-B

MBS COLLEGE
SCHOOL OF BUSINESS ADMINISTRATION
Lesson Plan for Business Mathematics

Programme : BBA(G) Semester: I Paper Code:17103 Academic Year: 2025-26

L-4, T-0 Credits -4

## Program Outcomes
## After the program the students will be able to:

PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values
PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Course Objective:** The course aims to develop research aptitude skills among the learners and to enable them to prepare project reports.

**Course Outcomes: (as specified in the syllabus)**

CO1: Ability to solve the problems of counting
CO2: Proficiency in solving the problems of Matrix Algebra
CO3: Ability to solve the problems of Differential calculus
CO4: Capability to solve the problems of Integral calculus
CO5: Analyzing business research problems

**PO-CO Mapping: Programme outcomes and course outcomes are specified in the syllabus and accordingly mapping should be done**

## BBA GEN 103: BUSINESS MATHEMATICS
## CO-PO MAPPING

| | PO1 | PO2 | PO3 | PO4 | PO 5 | PO6 | PO 7 | PO 8 | PSO1 | PSO 2 | PSO3 | PSO4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 |
| CO2 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| CO3 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1 | 3 | 3 | 2 | 1 |
| CO4 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| CO5 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 3 | 3 | 3 | 3 | 1 |
| AVG | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1.4 | 3 | 2.2 | 1.6 | 1 |

1- Low
2- Average
3-High

Association Rubrics:

The table depicts the relation between course outcome and program outcome
The Letter "3" indicate high degree of relationship between CO and PO
The Letter "2" indicate moderate/ Average degree of relationship between CO and PO
The Letter "1" indicate low degree of relationship between CO and PO

## Topic Layout/ Coverage Plan

| pare No. | Lecture Objective | Unit | Topic/Module Details with sub topics | Method ology | Reference/Text Book | Date on which delivered | Signature of Faculty |
|---|---|---|---|---|---|---|---|
| 1. | Revise some basic concepts | Unit-1 | Bridge class<br>1. Basics of algebra.<br>2. Algebraic expressions and formula's.<br>3. Finding solutions of a quadratic equation. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 18-Aug-25 | |
| 2. | To given an outline about the Unit: Objectives and outcomes | Unit-1 | Overview of unit-1 | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 19-Aug-25 | |
| 3. | To give an introduction of factorial: meaning and use.<br>To teach the basic rules of counting. | Unit-1 | Concept of factorial. Principle of counting: sum rule, product rule. Practice problems | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 20-Aug-25 | |
| 4. | To understand the need of permutation.<br>To find the permutation when objects are distinct and when the objects are not distinct. | Unit-1 | Meaning of Permutation, types of permutations. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 22-Aug-25 | |
| 5. | To understand the meaning of combinations: use and applications. | Unit-1 | Meaning of Combinations, types of Combinations | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 25-Aug-25 | |
| 6. | To solve the applications of permutation and combinations | Unit-1 | Application of permutation and combinations | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 26-Aug-25 | |
| 7. | To understand the Principle of Mathematical Induction: application to prove propositions involving integers.<br>To be able to modify the Principle to suit different purposes | Unit-1 | Principle of mathematical induction. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 27-Aug-25 | |

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|---|---|---|---|---|---|---|
| 8. | To prove the statements using mathematical induction | Unit-1 | Application of mathematical Problem | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | Aug 29-Sep-25 |
| 9. | To understand between sequence and series. | Unit-1 | Sequence and series: A.P. $n^{th}$ term. Sum of n terms and arithmetic mean. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 1-Sep-25 |
| 10 | To explain A.P. and G.P. : their means and applications | Unit-1 | Practice problems | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 2-Sep 25 |
| 11 | | Unit-1 | Geometric series: - $n^{th}$ term and sum of n terms. Geometric mean and infinite geometric series. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 3-Sep 25 |
| 12 | | Unit-1 | Application of A.P and G.P series | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 8-Sep -25 |
| 13 | To explain the concept of function: definition and types | Unit-1 | Function definition, Domain and Range. Algebra of functions | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 9-Sep -25 |
| 14 | | Unit-1 | Types of function, Composite functions | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 10-Sep 25 |
| 15 | **Assignment Unit-1** | | | | | |
| 16 | | | **Revision of Unit -1** | | | |
| 17 | To given an outline about the Unit: Objectives and outcomes | Unit-2 | **Overview of Unit: II** | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 11-Sep-25 Practical Bill |
| 18 | To give an introduction to Matrices: types, properties, the meaning of transpose and inverse, methods to obtain them. | Unit-2 | Matrix algebra: types of matrices, operations and properties of matrices, transpose of a matrix | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 16-Sep25 17-Sep-25 Practical Bill |
| 19 | | Unit-2 | The inverse of a matrix and its properties. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 18-Sep25 Practical Bill |
| 20 | | Unit-2 | Matrix algebra: solution to a system of equation by the adjoint matrix methods. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 22-Sep -25 24-Sep 25 Practical Bill |
| 21 | To obtain the Echelon form and it's application in solving the system of | Unit-2 | Problems based on solving a system of equation by adjoint matrix methods. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 25-Sep 25 Practical Bill |

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|---|---|---|---|---|---|---|---|
| 22 | equations. | Unit-2 | Matrix algebra: solution to a system of equation by the Gaussian elimination method. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 29-Sep-25 | Practice Bd |
| 23 | | Unit-2 | Matrix algebra: Echelon form of a matrix. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 30-Sep-25 | Practice Bd |
| 24 | | Unit-2 | Application of matrices to business problems: Matrix representation of data, addition, subtraction and multiplication. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 1-Oct-25 | Practice Bd |
| 25 | To explain the meaning and significance of rank. | Unit-2 | Matrix algebra : Rank of a matrix and rank of a system of a equation. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 6-Oct-25 | Practice Bd |
| 26 | To solve the problems related to business involving system of linear equations using Matrix algebra | Unit-2 | Application of matrices to business problems: Preparation of depreciation lapse schedule. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 8-Oct-25<br>9-Oct-25 | Practice Bd |
| 27 | | Unit-2 | Problems based on depreciation lapse schedule | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 13-Oct-25<br>14-Oct-25 | Practice Bd |
| 28 | | Unit-2 | System of linear equations: Applications in Business | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 15-Oct-25<br>16-Oct-25 | Practice Bd |
| 29 | | Unit-2 | Business Application of Matrix Algebra. | Lecture | Business Mathematics by J.K Thukral & D.C Sancheti | 28-Oct-25 | Practice Bd |
| 30 | **Assignment Unit-2** | | | | | | |
| 31 | To introduce the meaning of differentiation, it's need and applications. | Unit-3 | Differential calculus: Derivative of a function | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 29-Oct-25 | Practice Bd |
| 32 | Students should understand the meaning of the derivative in terms of a rate of change and local linear approximation and should be able to use derivatives to solve a variety of problems | Unit-3 | Implicit Function | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 30-Oct-25 | Practice Bd |
| 33 | | Unit-3 | Applications Of Derivatives: Maxima & Minima Of Function. | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 31-Oct-25 | Practice Bd |
| 34 | | Unit-3 | Absolute and local Maxima And Minima | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 7-11-25 | Practice Bd |
| 35 | | Unit-3 | Maximum & Minimum Value Of Function, Test To Find Maxima & Minima. Second Derivative Test | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 10-11-25 | Practice Bd |

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|---|---|---|---|---|---|---|
| 36. | To explain the use of Lagrangian multiplier's in multivariable calculus to find maxima and minima of a function subject to constraints | Unit-3 | Differential calculus Lagrangian multipliers | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 11-11-25 |
| 37. | | Unit-3 | Problems based on lagrangian multipliers. | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 12-11-25 |
| 38. | To explain the applications of Partial derivatives in Business | Unit-3 | Partial differential equation and four partial marginal elasticity function | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 14-11-25 |
| 39. | | Unit-3 | Application of partial derivatives in business. | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 17-11-25 |
| 40. | To explain the meaning, need and various techniques of integration. Difference between indefinite and definite integration and their properties. | Unit-4 | **Overview of Unit: IV** Integral Calculus: Indefinite Integrals, Some standard forms | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 18-11-25 |
| 41. | | Unit-4 | Techniques of integration: Integration by parts and partial fraction. | Case-Study | Business Mathematics by J.K Thukral & Kavita Gupta | 21-11-25 |
| 42. | | Unit-4 | Definite integrals, properties of definite integrals | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 26-11-25 |
| 43. | | Unit-4 | Application of definite integrals | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 1-12-25 |
| 44. | Students will learn to apply integration techniques in finding the volume of a solid, consumer's surplus, producer's surplus, and exponential growth and decay | Unit-4 | Practice problems | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 4-12-25 |
| 45. | | Unit-4 | Consumer's surplus | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 4-12-25 |
| 46. | | Unit-4 | Producer's surplus | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 5-12-25 |
| 47. | | Unit-4 | Learning curves and its business applications | Lecture | Business Mathematics by J.K Thukral & Kavita Gupta | 5-12-25 |

## SUGGESTED READINGS:


1. Gupta, K. (1st Ed. 2011). Business Mathematics, Sun India Publications.
2. Trivedi, (Ist Ed.. 2012). Business Mathematics, Pearson Education.

3. Thukral,J.K. Business Mathematics, Mayur Paperbacks.
4. Sancheti, D.C, Business Mathematics
5. Bhardwaj ,R.S.(Ist Ed., 2013).Mathematics for Economics and Business, Excel Books.
6. Khan, Shadab, (Ist Ed., 2015) A Text Book of Business Mathematics, Anmol Publications.
7. Hazarika, P. (1st Ed., Rep., 2016) A Textbook of Business Mathematics, S. Chand Publications.

Faculty HOD Director

## MBS COLLEGE

## School of Business Administration

### Lesson Plan for Financial Accounting & Analysis

**Programme BBA Semester: I Paper Code: 17105 Academic Year: 2025-26**

**Programme Outcome (as specified in the syllabus)**

PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values
PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Course Objective:** The objective of this subject is to give understanding of the basic accounting principles and techniques of preparing the accounts for users of accounting information.

**Course Outcomes:**

CO1: Comprehension about concepts of accounting and relevance of GAAP and accounting standards

CO2: Preparation of company final accounts with adjustments

CO3: Appreciate contemporary issues and challenges in accounting
CO4: Examine the concept and the methods of depreciation
CO5 : Comprehension about accounting for shares and debentures
CO6: Explore the role of Stock exchanges and SEBI as a regulator
CO7: Conduct comprehensive financial analysis of companies

**PO-CO Mapping: Programme outcomes and course outcomes are specified in the syllabus and accordingly mapping should be done**

| Program level Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO 7 | PO 8 | PSO1 | PSO 2 | PSO3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 2 | 3 | 1 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO6 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO7 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 1 |
| AVG | 3 | 2.43 | 3 | 2.57 | 3 | 2.14 | 1 | 1.71 | 3 | 3 | 3 | 1 |

Association Rubrics: 3-High 2- Average 1- Low

The table depicts the relation between course outcome and program outcome.
The Letter "3" indicate high degree of relationship between CO and PO.
The Letter "2" indicate moderate/ Average degree of relationship between CO and PO.
The Letter "1" indicate low degree of relationship between CO and PO.

## Topic Layout/ Coverage Plan

| S.No | Lecture Objective | UNIT | Topic/ Module Details with subtopics | Methodology | Reference / Text book | Date on which delivered | Signature of Faculty |
|---|---|---|---|---|---|---|---|
| 1 | To Understand the subject | Unit-1 | Introduction of the subject | Lecture and interaction | T1, T3 | 19/8/25 | |
| 2 | Fundamentals of accounts | Unit-1 | Need and Development of Accounting, Definition of Accounting | Lecture and interaction | T1, T3 | 21/8/25 | |
| 3 | Fundamentals of accounts | Unit-1 | Limitation, Book Keeping and Accounting Accounting and other Disciplines | Lecture and interaction | T1, T3 | 22/8/25 | |
| 4 | Fundamentals of accounts | Unit-1 | Functions and objectives of accounting | Lecture and interaction | T1, T3 | 25/8/25 | |
| 5 | Fundamentals of accounts | Unit-1 | Branches of Accounting, Accounting Equation .Accounting Principles | Lecture and interaction | T1, T3 | 26/8/25 | |
| 6 | Acquiring the knowledge and analysis | Unit-1 | Accounting concepts and conventions | Lecture and interaction | T1, T3 | 29/8/25 | |
| 7 | Acquiring the knowledge and analysis | Unit-1 | Contd…..Accounting Concepts and Conventions, Accounting Cycle system of accounting | Lecture and interaction | T1, T3 | 1/9/25 | |
| 8 | Acquiring the knowledge and analysis | Unit-1 | Introduction to Accounting Standards Issued by ICAI. | Lecture and interaction | T1, T3 | 2/9/25 | |
| 9 | Analyzing & evaluating students learning about Unit I. | Revision (Unit I) | Revision | | T1, T3 | 4/9/25 | |
| 10 | Acquiring the knowledge and analysis | Unit-2 | Journal, Rules of Debit and Credit, Compound Journal Entry | Lecture and interaction | T1, T3 | 8/9/25 | |

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|---|---|---|---|---|---|---|---|
| 11 | Problem Solving | Unit-2 | Journal Entries: Question for practice | Practice | T1, T3 | 9/9/25 | |
| 12 | Problem Solving | Unit-2 | Journal Entries: Question for practice | Practice | T1, T3 | 9/9/25 | |
| 13 | Problem Solving | Unit-2 | Journal Entries: Question for practice | Practice | T1, T3 | 11/09/25 | |
| 14 | Problem Solving | Unit-2 | Cash Journal | Practice | T1, T3 | 12/9/25 | |
| 15 | Problem Solving | Unit-2 | Petty Cash Book | Practice | T1, T3 | 12/9/25 | |
| 16 | Problem Solving | Unit-2 | Purchase Journal, Sales Journal, Sales Return Journal, Voucher System. | Practice | T1, T3 | 16/9/25 | |
| 17 | Problem Solving | Unit-2 | Ledger, Posting, Relationship between Journal and Ledger | Practice | T1, T3 | 17/9/25 | |
| 18 | Problem Solving | Unit-2 | Contd..... | Lecture and interaction | T1, T3 | 17/9/25 | |
| 19 | Problem Solving | Unit-2 | Trial Balance | Practice | T1, T3 | 18/9/25 | |
| 20 | Problem Solving | Unit-2 | Question for practice | Practice | T1, T3 | 19/9/25 | |
| 21 | Analyzing & evaluating students learning about Unit II. | Revision (Unit II) | Revision | | | 19/9/25 | |
| 22 | Acquiring the knowledge and analysis | Unit-3 | Concept, Causes and features of Depreciation, Depreciation Accounting, Objectives of Providing | Lecture and interaction | T1, T3 | 23/9/25 | |
| 23 | Acquiring the knowledge and analysis | Unit-3 | Contd..... | Lecture and interaction | T1, T3 | 24/9/25 | |
| 24 | Acquiring the knowledge and analysis | Unit-3 | Depreciation Amount, Methods of Providing Depreciation | Lecture and interaction | T1, T3 | 25/9/25 | |
| 25 | Problem Solving | Unit-3 | Methods of Providing Depreciation, Provisions and Reserves | Practice | T1, T3 | 25/9/25 | |
| 26 | Problem Solving | Unit-3 | Change of method of Depreciation (by both current and retrospective effect). | Lecture and interaction | T1, T3 | 26/9/25 | |

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|---|---|---|---|---|---|---|---|
| 27 | Problem Solving | Unit-3 | Change of method of Depreciation (by both current and retrospective effect). | Lecture and interaction | T1, T3 | 30/9/25 | |
| 28 | Practice | Unit-3 | Question for practice | Practice | T1, T3 | 1/10/25 | |
| 29 | Practice | Unit-3 | Question for practice | Practice | T1, T3 | 3/10/25 | |
| 30 | Analyzing & evaluating students learning about Unit III. | Revision | Revision | | T1, T3 | 8/10/25 | |
| 31 | Acquiring the knowledge and analysis | Unit-4 | Shares, Share Capital, Accounting Entries | Lecture and interaction | T1, T3 | 9/10/25 | |
| 32 | Problem Solving | Unit-4 | Under-subscription, Over-subscription | Practice | T1, T3 | 10/25 | |
| 33 | Problem Solving | Unit-4 | Under-subscription, Over-subscription | Practice | T1, T3 | 14/10/25 | |
| 34 | Problem Solving | Unit-4 | Under-subscription, Over-subscription | Practice | T1, T3 | 15/10/25 | |
| 35 | Problem Solving | Unit-4 | Calls in Advance, Calls in Arrears | Practice | T1, T3 | 16/10/25 | |
| 36 | Problem Solving | Unit-4 | Issue of Share at Premium, Issue of Share at Discount | Practice | T1, T3 | 17/10/25 | |
| 37 | Problem Solving | Unit-4 | Issue of Share at Premium, Issue of Share at Discount | Practice | T1, T3 | 28/10/25 | |
| 38 | Problem Solving | Unit-4 | Forfeiture of Shares, Surrender of Shares | Practice | T1, T3 | 29/10/25 | |
| 39 | Problem Solving | Unit-4 | Issue of Two Classes of Shares, Right Shares, Re-issue of shares Question for practice | Practice | T1, T3 | 30/10/25 | |
| 40 | Problem Solving | Unit-4 | Classification, Issue of Debentures, Different Terms of Issue of Debentures | Lecture and interaction | T1, T3 | 7/11/25 | |
| 41 | Problem Solving | Unit-4 | Writing off Loss on Issue of Debentures, Redemption of Debentures | Practice | T1, T3 | 10/11/25 | |
| 42 | Problem Solving | Unit-4 | Redemption of Debentures | Practice | T1, T3 | 12/11/25 | |
| 43 | Problem Solving | Unit-4 | Meaning, Characteristics of a Company, Kinds of | Practice | T1, T3 | 13/11/25 | |

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|---|---|---|---|---|---|---|---|
| | | | Companies, Pvt and Public Co and formation | | | 14/11/25 | |
| 44 | Analyzing & evaluating students learning about Unit IV. | Revision (Unit IV) | Revision | | | 19/11/25 | |
| 45 | Problem Solving | Unit-2 | Books of Account, Preparation of Final Accounts, P & L Account, Balance Sheet | Practice | T1, T3 | 20/11/25 | |
| 46 | Problem Solving | Unit-2 | Company Final Accounts, Question for practice | Practice | T1, T3 | 21/11/25 | |
| 47 | Awareness of stock exchange and its functioning | Unit-4 | Overview of stock exchange and SEBI | Lecture and interaction | T1, T3 | 24/11/25 | |
| 48 | Awareness of various contemporary issues in accounting | Unit-3 | Contemporary Issues and challenges in Accounting: HR and Green Accounting | Discussion | T1, T3 | 26/11/25<br>27/11/25 | |
| 49 | Awareness of various contemporary issues in accounting | Unit-3 | Inflation Accounting, Price Level Accounting, Social Responsibility Accounting | Discussion | T1, T3 | 28/11/25 | |
| 50 | To acquaint students about previous year question paper and to discuss how to attempt question paper. | Unit-3 | Previous Years Question Paper /MCQ Discussion | Discussion | T1, T3 | 1/12/25<br>2/12/25 | |

**Suggested Readings:**

**1)** Maheshwari, S.N., and Maheshwari, S.K., An Introduction to Accountancy, Vikas Publishing House.

**2)** Tulsian, P.C., Financial Accountancy, Pearson Accountancy.

**3)** Introduction to Financial Accounting, J.R.Monga, Scholar Tech Press.

**Leave availed during this period:**

Miss Mujrat

**Name & Signature of Faculty** **HOD** **Director**

## MBS COLLEGE

## School of Business Administration

### Lesson Plan for Financial Accounting & Analysis

**Programme BBA Semester: I Paper Code: 17105 Academic Year: 2025-26**

**Programme Outcome (as specified in the syllabus)**

PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values
PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Course Objective:** The objective of this subject is to give understanding of the basic accounting principles and techniques of preparing the accounts for users of accounting information.

**Course Outcomes:**

CO1: Comprehension about concepts of accounting and relevance of GAAP and accounting standards

CO2: Preparation of company final accounts with adjustments

CO3: Appreciate contemporary issues and challenges in accounting
CO4: Examine the concept and the methods of depreciation
CO5 : Comprehension about accounting for shares and debentures
CO6: Explore the role of Stock exchanges and SEBI as a regulator
CO7: Conduct comprehensive financial analysis of companies

**PO-CO Mapping: Programme outcomes and course outcomes are specified in the syllabus and accordingly mapping should be done**

| Program level Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO 7 | PO 8 | PSO1 | PSO 2 | PSO3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 2 | 3 | 1 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO6 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO7 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 1 |
| AVG | 3 | 2.43 | 3 | 2.57 | 3 | 2.14 | 1 | 1.71 | 3 | 3 | 3 | 1 |

**Association Rubrics: 3-High 2- Average 1- Low**

The table depicts the relation between course outcome and program outcome.
The Letter "3" indicate high degree of relationship between CO and PO.
The Letter "2" indicate moderate/ Average degree of relationship between CO and PO.
The Letter "1" indicate low degree of relationship between CO and PO.

## Topic Layout/ Coverage Plan

| S.No | Lecture Objective | UNIT | Topic/ Module Details with subtopics | Methodology | Reference / Text book | Date on which delivered | Signature of Faculty |
|---|---|---|---|---|---|---|---|
| 1 | To Understand the subject | Unit-1 | Introduction of the subject | Lecture and interaction | T1, T3 | 19/8/25 | |
| 2 | Fundamentals of accounts | Unit-1 | Need and Development of Accounting, Definition of Accounting | Lecture and interaction | T1, T3 | 21/8/25 | |
| 3 | Fundamentals of accounts | Unit-1 | Limitation, Book Keeping and Accounting Accounting and other Disciplines | Lecture and interaction | T1, T3 | 22/8/25 | |
| 4 | Fundamentals of accounts | Unit-1 | Functions and objectives of accounting | Lecture and interaction | T1, T3 | 22/8/25 | |
| 5 | Fundamentals of accounts | Unit-1 | Branches of Accounting, Accounting Equation .Accounting Principles | Lecture and interaction | T1, T3 | 25/8/25 | |
| 6 | Acquiring the knowledge and analysis | Unit-1 | Accounting concepts and conventions | Lecture and interaction | T1, T3 | 26/8/25 | |
| 7 | Acquiring the knowledge and analysis | Unit-1 | Contd…..Accounting Concepts and Conventions, Accounting Cycle system of accounting | Lecture and interaction | T1, T3 | 29/8/25 | |
| 8 | Acquiring the knowledge and analysis | Unit-1 | Introduction to Accounting Standards Issued by ICAI. | Lecture and interaction | T1, T3 | 1/9/25 | |
| 9 | Analyzing & evaluating students learning about Unit I. | Revision (Unit I) | Revision | | T1, T3 | 2/9/25 | |
| 10 | Acquiring the knowledge and analysis | Unit-2 | Journal, Rules of Debit and Credit, Compound Journal Entry | Lecture and interaction | T1, T3 | 4/9/25 | |

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|---|---|---|---|---|---|---|---|
| 11 | Problem Solving | Unit-2 | Journal Entries: Question for practice | Practice | T1, T3 | 9/9/25 | |
| 12 | Problem Solving | Unit-2 | Journal Entries: Question for practice | Practice | T1, T3 | 12/9/25 | |
| 13 | Problem Solving | Unit-2 | Journal Entries: Question for practice | Practice | T1, T3 | 15/9/25 | |
| 14 | Problem Solving | Unit-2 | Cash Journal | Practice | T1, T3 | 15/9/25 | |
| 15 | Problem Solving | Unit-2 | Petty Cash Book | Practice | T1, T3 | 16/9/25 | |
| 16 | Problem Solving | Unit-2 | Purchase Journal, Sales Journal, Sales Return Journal, Voucher System. | Practice | T1, T3 | 17/9/25 | |
| 17 | Problem Solving | Unit-2 | Ledger, Posting, Relationship between Journal and Ledger | Practice | T1, T3 | 22/9/25 | |
| 18 | Problem Solving | Unit-2 | Contd..... | Lecture and interaction | T1, T3 | 22/9/25 | |
| 19 | Problem Solving | Unit-2 | Trial Balance | Practice | T1, T3 | 23/9/25 | |
| 20 | Problem Solving | Unit-2 | Question for practice | Practice | T1, T3 | 23/9/25 | |
| 21 | Analyzing & evaluating students learning about Unit II. | Revision (Unit II) | Revision | | | 25/9/25 | |
| 22 | Acquiring the knowledge and analysis | Unit-3 | Concept, Causes and features of Depreciation, Depreciation Accounting, Objectives of Providing | Lecture and interaction | T1, T3 | 26/9/25 | |
| 23 | Acquiring the knowledge and analysis | Unit-3 | Contd..... | Lecture and interaction | T1, T3 | 29/9/25 | |
| 24 | Acquiring the knowledge and analysis | Unit-3 | Depreciation Amount, Methods of Providing Depreciation | Lecture and interaction | T1, T3 | 30/9/25 | |
| 25 | Problem Solving | Unit-3 | Methods of Providing Depreciation, Provisions and Reserves | Practice | T1, T3 | 1/10/25 | |
| 26 | Problem Solving | Unit-3 | Change of method of Depreciation (by both current and retrospective effect). | Lecture and interaction | T1, T3 | 3/10/25 | |

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|---|---|---|---|---|---|---|---|
| 27 | Problem Solving | Unit-3 | Change of method of Depreciation (by both current and retrospective effect). | Lecture and interaction | T1, T3 | 8/10/25 | |
| 28 | Practice | Unit-3 | Question for practice | Practice | T1, T3 | 10/10/25 | |
| 29 | Practice | Unit-3 | Question for practice | Practice | T1, T3 | 13/10/25 | |
| 30 | Analyzing & evaluating students learning about Unit III. | Revision | Revision | | T1, T3 | 14/10/25 | |
| 31 | Acquiring the knowledge and analysis | Unit-4 | Shares, Share Capital, Accounting Entries | Lecture and interaction | T1, T3 | 15/10/25 | |
| 32 | Problem Solving | Unit-4 | Under-subscription, Over-subscription | Practice | T1, T3 | 17/10/25 | |
| 33 | Problem Solving | Unit-4 | Under-subscription, Over-subscription | Practice | T1, T3 | 28/10/25 | |
| 34 | Problem Solving | Unit-4 | Under-subscription, Over-subscription | Practice | T1, T3 | 29/10/25 | |
| 35 | Problem Solving | Unit-4 | Calls in Advance, Calls in Arrears | Practice | T1, T3 | 29/10/25 | |
| 36 | Problem Solving | Unit-4 | Issue of Share at Premium, Issue of Share at Discount | Practice | T1, T3 | 30/10/25 | |
| 37 | Problem Solving | Unit-4 | Issue of Share at Premium, Issue of Share at Discount | Practice | T1, T3 | 30/10/25 | |
| 38 | Problem Solving | Unit-4 | Forfeiture of Shares, Surrender of Shares | Practice | T1, T3 | 31/10/25 | |
| 39 | Problem Solving | Unit-4 | Issue of Two Classes of Shares, Right Shares, Re-issue of shares Question for practice | Practice | T1, T3 | 31/10/25 | |
| 40 | Problem Solving | Unit-4 | Classification, Issue of Debentures, Different Terms of Issue of Debentures | Lecture and interaction | T1, T3 | 7/11/25 | |
| 41 | Problem Solving | Unit-4 | Writing off Loss on Issue of Debentures, Redemption of Debentures | Practice | T1, T3 | 12/11/25 | |
| 42 | Problem Solving | Unit-4 | Redemption of Debentures | Practice | T1, T3 | 14/11/25 | |
| 43 | Problem Solving | Unit-4 | Meaning, Characteristics of a Company, Kinds of | Practice | T1, T3 | 18/11/25 | |

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|---|---|---|---|---|---|---|---|
| | | | Companies, Pvt and Public Co and formation | | | 19/11/25 | |
| 44 | Analyzing & evaluating students learning about Unit IV. | Revision (Unit IV) | Revision | | | 21/11/25 | |
| 45 | Problem Solving | Unit-2 | Books of Account, Preparation of Final Accounts, P & L Account, Balance Sheet | Practice | T1, T3 | 24/11/25 | |
| 46 | Problem Solving | Unit-2 | Company Final Accounts, Question for practice | Practice | T1, T3 | 26/11/25 | |
| 47 | Awareness of stock exchange and its functioning | Unit-4 | Overview of stock exchange and SEBI | Lecture and interaction | T1, T3 | 28/12/25 | |
| 48 | Awareness of various contemporary issues in accounting | Unit-3 | Contemporary Issues and challenges in Accounting: HR and Green Accounting | Discussion | T1, T3 | 4/12/25 | |
| 49 | Awareness of various contemporary issues in accounting | Unit-3 | Inflation Accounting, Price Level Accounting, Social Responsibility Accounting | Discussion | T1, T3 | 4/12/25 | |
| 50 | To acquaint students about previous year question paper and to discuss how to attempt question paper. | Unit-3 | Previous Years Question Paper /MCQ Discussion | Discussion | T1, T3 | 5/12/25 | |

**Suggested Readings:**

1) Maheshwari, S.N., and Maheshwari, S.K., An Introduction to Accountancy, Vikas Publishing House.
2) Tulsian, P.C., Financial Accountancy, Pearson Accountancy.
3) Introduction to Financial Accounting, J.R.Monga, Scholar Tech Press.

Miss Musrat

**Name & Signature of Faculty** **HOD** **Director**

# MBS COLLEGE

## SCHOOL OF BUSINESS ADMINISTRATION

### Lesson Plan for Business Economics

**Programme: BBA Sem : I Sec- A Subject Code: BBA-107 Academic Year: 2025-26**

**Programme Outcome (as specified in the syllabus)**

PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values
PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Course Objective:** The objective of this subject is to give an understanding of the basic concepts and issues in business economics and their application in business decisions.

**Course Outcomes:**

CO1: Ability to solve problems of economics
CO2: Proficiency in solving the market problems and demand fluctuations
CO3: Ability to solve the problems of capacity utilization
CO4: Capacity to make decisions on pricing in different market forms
CO5: Comprehension about accounting for shares and debentures
CO6: Conduct cost-benefit analysis for Business projects
CO7: Recognize the influence of global economics on business operations

**PO-CO Mapping: Programme outcomes and course outcomes are specified in the syllabus and accordingly, mapping should be done**

| Program level Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO 7 | PO 8 | PSO1 | PSO 2 | PSO3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 2 | 3 | 1 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO6 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO7 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 1 |
| AVG | 3 | 2.43 | 3 | 2.57 | 3 | 2.14 | 1 | 1.71 | 3 | 3 | 3 | 1 |

**Association Rubrics: 3-High 2- Average 1- Low**

| S.no | Lecture Objective | UNIT | Topic/ Module Details with subtopics | Methodology | Reference / Text book | Date on which delivered | Signature of Faculty |
|---|---|---|---|---|---|---|---|
| | | **Unit-1** | **Introduction to Business Economics & Fundamental Concept** | | 1,2 | | |
| 1 | **Different Types of Issues In Business Economics** | | Topic-Nature, Scope, Definition of Business Economics | Lecture | 1,2 | 11/9 11:30 | Shweta |
| 2 | | | Difference between Business Economics and Economics/Micro VS Macro Economics Positivistic /Normative Approach | Lecture | 1,2 | 11/9 2:00 | Shweta |
| 3 | | | MCQ-Test | | 1,2 | 12/9 [1:00] | Shweta |
| 4 | | | Contribution and Application of Business Economics to Business | Lecture | 1,2 | 15/9 1:00 | Shweta |
| 5 | | | Different Types of Business-study | Lecture | 1,2 | 15/9 2:00 | Shweta |
| 6 | | | Concept: Opportunity Cost, Time Value of Money, Marginalism and Incrementalism . | Lecture | 1,2 | 16/9 1:00 | Shweta |
| 7 | | | Case Study and Example | | 1,2 | 17/9 [2:00] | Shweta |
| 8 | | | MCQ-Test/Revision | | 1,2 | 18/9 [11:30] | Shweta |
| 9 | | | Market Forces and Equilibrium | Lecture | 1,2 | 19/9 [2] | Shweta |
| 10 | | | Product, Labour, Money Market | Lecture | 1,2 | 23/9 (1) | Shweta |
| 11 | | | Risk ,Return and Profit | Lecture | 1,2 | 24/9 (8:30) | Shweta |
| 12 | | | Bank, Insurance Company and Firms | Lecture | 1,2 | 25/9 (11:30) | Shweta |
| 13 | | | Introduction to behavioral Economics: Nudge Theory | Lecture | 1,2 | 26/9 (2 pm) | Shweta |
| | | | | | | | |
| 14 | **Consumer Behavior And** | **Unit-2** | **Consumer Behavior and Demand Analysis** | | | 30/9 10:30 | Shweta |
| 15 | | | Cardinal Utility Approach | Lecture | 1,2 | 8/10 10:30 | Shweta |

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|---|---|---|---|---|---|---|---|
| 16 | **Demand analysis with studying elasticity of demand and Nature of Goods** | | Diminishing MU, Equi-MU | Lecture | 1,2 | 3/oct | Shweta |
| 17 | | | Ordinal Utility Approach-Indifference Curve,MRS | Lecture | 1,2 | 8/oct | Shweta |
| 18 | | | Budget Line and Consumer Equilibrium | Lecture | 1,2 | 9/oct | Shweta |
| 19 | | | Theory of Demand and Law of Demand(Good's Behavior) | Lecture | 1,2 | 10/oct | Shweta |
| 20 | | | Movement and Shift in Demand | Lecture | 1,2 | 13/oct | Shweta |
| 21 | | | Elasticity and Measurement of Elasticity of Demand | Lecture | 1,2 | 14/oct | Shweta |
| 22 | | | Nature of Goods and Elasticity of Demand | Lecture | 1,2 | 15/oct | Shweta |
| 23 | | | Forecasting: Need, Objective and Method | Lecture | 1,2 | 16/oct | Shweta |
| **Self -Work / Assignment/ Project-Indifference Curves and Consumer Equilibrium, Elasticity Of Demand and methods of measurement ,Forecasting of demand-objective and methods** | | | | | | | |
| 24 | **Production Analysis And Productivity** | **Unit-3** | **Theory of Production** | | | 28/oct | Shweta |
| 25 | | | Meaning and Concept of Production Function | Lecture | 1,2 | 30/oct | Shweta |
| 26 | | | Small, Medium, Large Scale Production Unit | Lecture | 1,2 | 31/oct | Shweta |
| 27 | | | Factors of Production and Production Function | Lecture | 1,2 | 7/11 | Shweta |
| 28 | | | Fixed and Variable Factors | Lecture | 1,2 | 12/11 | Shweta |
| 29 | | | For Small Scale Business | Lecture | 1,2 | 14/11 | Shweta |
| 30 | | | Short Run Production Analysis | Lecture | 1,2 | 18/11 | Shweta |
| 31 | | | For Large Scale Business | Lecture | 1,2 | 19/11 | Shweta |
| 32 | | | Long Run Production Analysis | Lecture | 1,2 | 20/11 | Shweta |
| 33 | | | Types of Costs-Short and Long Term | Lecture | 1,2 | | Shweta |
| 34 | | | Economies and Diseconomies of Scale | Lecture | 1,2 | 21/11 | Shweta |
| **Self- Work/ Assignment/ Project-Production-Laws of variable proportion, Laws of returns to scale, Economies and Diseconomies of Scale and Cost.** | | | | | | | |

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|---|---|---|---|---|---|---|---|
| | **Cost Analysis and Market Analysis** | **Unit-4** | **Cost Analysis and Price out put Decision** | | | | |
| 35 | | | Pricing under Perfect Competition | Lecture | 1,2 | 27/11 | |
| 36 | | | Pricing Under Monopoly, control and Price Discrimination | Lecture | 1,2 | 28/11 | |
| 37 | | | MCQ-Test /Revision | | | 28/11 | |
| 38 | | | Pricing under Monopoly Competition | Lecture | 1,2 | 5/12 | |
| 39 | | | Pricing under Oligopoly Competition | Lecture | 1,2 | 5/12 | |
| 40 | | | Cournot Model, Kinked demand curve Model) | Lecture | 1,2 | | |
| **Self -Work/ Assignment/ Project-Difference in Perfect and Monopolistic Competitive Market, Difference in Monopoly and Oligopoly, Cornot Model and P.M. Sweezy Model** | | | | | | | |

**Text and Reference Books:**


1. Samuelsons, Nordhaus, W.D Economics, Tata Mcgraw Hill.
2. Diwedi D.N. Managerial Economics, Vikas Publishing House
3. Thomas, CR, Managerial Economics, Mcgraw Hill Education
4. Mankin, N.G. Principles of Economics, Cengage Learning
5. Petersons.L.and Jain , Managerial Economics, Pearsons Education
6. Kreps D.,Micro Economics for Managers,Viva Books Pvt.Ltd.


**NAME & SIGNATURE OF FACULTY** **HOD** **DIRECTOR**

# MBS COLLEGE

## SCHOOL OF BUSINESS ADMINISTRATION

### Lesson Plan for Business Economics

**Programme: BBA Sem : I Sec- B Subject Code: BBA-107 Academic Year: 2025-26**

**Programme Outcome (as specified in the syllabus)**

PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values
PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Course Objective:** The objective of this subject is to give an understanding of the basic concepts and issues in business economics and their application in business decisions.

**Course Outcomes:**

CO1: Ability to solve problems of economics
CO2: Proficiency in solving the market problems and demand fluctuations
CO3: Ability to solve the problems of capacity utilization
CO4: Capacity to make decisions on pricing in different market forms
CO5: Comprehension about accounting for shares and debentures
CO6: Conduct cost-benefit analysis for Business projects
CO7: Recognize the influence of global economics on business operations

**PO-CO Mapping: Programme outcomes and course outcomes are specified in the syllabus and accordingly, mapping should be done**

| Program level Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO 7 | PO 8 | PSO1 | PSO 2 | PSO3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 2 | 3 | 1 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO6 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO7 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 1 |
| AVG | 3 | 2.43 | 3 | 2.57 | 3 | 2.14 | 1 | 1.71 | 3 | 3 | 3 | 1 |

**Association Rubrics: 3-High 2- Average 1- Low**

| S.no | Lecture Objective | UNIT | Topic/ Module Details with subtopics | Methodology | Reference / Text book | Date on which delivered | Signature of Faculty |
|---|---|---|---|---|---|---|---|
| | | **Unit-1** | **Introduction to Business Economics & Fundamental Concept** | | 1,2 | | |
| 1 | | | Topic-Nature, Scope, Definition of Business Economics | Lecture | 1,2 | 11/9 10:30 | Shweta |
| 2 | **Different Types of Issues In Business Economics** | | Difference between Business Economics and Economics/Micro VS Macro Economics Positivistic /Normative Approach | Lecture | 1,2 | 11/9 1:10 | Shweta |
| 3 | | | MCQ-Test | | 1,2 | 12/9 [10:30] | Shweta |
| 4 | | | Contribution and Application of Business Economics to Business | Lecture | 1,2 | 16/9 2:10 | Shweta |
| 5 | | | Different Types of Business-study | Lecture | 1,2 | 17/9 11:30 | Shweta |
| 6 | | | Concept: Opportunity Cost, Time Value of Money, Marginalism and Incrementalism . | Lecture | 1,2 | 18/9 10:30 | Shweta |
| 7 | | | Case Study and Example | | 1,2 | 19/9 [10:30] | Shweta |
| 8 | | | MCQ-Test/Revision | | 1,2 | 23/9 [8:30] | Shweta |
| 9 | | | Market Forces and Equilibrium | Lecture | 1,2 | 24/9 [1:30] | Shweta |
| 10 | | | Product, Labour, Money Market | Lecture | 1,2 | 25/9 [10:30] | Shweta |
| 11 | | | Risk ,Return and Profit | Lecture | 1,2 | 26/9 [10:30] | Shweta |
| 12 | | | Bank, Insurance Company and Firms | Lecture | 1,2 | 30/9 | Shweta |
| 13 | | | Introduction to behavioral Economics: Nudge Theory | Lecture | 1,2 | 1/10 | Shweta |
| | | | | | | | |
| 14 | **Consumer Behavior And** | **Unit-2** | **Consumer Behavior and Demand Analysis** | | | 3/10 | Shweta |
| 15 | | | Cardinal Utility Approach | Lecture | 1,2 | 8/10 | |

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|---|---|---|---|---|---|---|---|
| 16 | **Demand analysis with studying elasticity of demand and Nature of Goods** | | Diminishing MU, Equi-MU | Lecture | 1,2 | 9/10 | Sunita |
| 17 | | | Ordinal Utility Approach-Indifference Curve,MRS | Lecture | 1,2 | 10/10 | Sunita |
| 18 | | | Budget Line and Consumer Equilibrium | Lecture | 1,2 | 14/10 | Sunita |
| 19 | | | Theory of Demand and Law of Demand(Good's Behavior) | Lecture | 1,2 | 15/10 | Sunita |
| 20 | | | Movement and Shift in Demand | Lecture | 1,2 | 16/10 | Sunita |
| 21 | | | Elasticity and Measurement of Elasticity of Demand | Lecture | 1,2 | 28/10 | Sunita |
| 22 | | | Nature of Goods and Elasticity of Demand | Lecture | 1,2 | 30/10 | Sunita |
| 23 | | | Forecasting: Need, Objective and Method | Lecture | 1,2 | 31/10 | Sunita |
| **Self -Work / Assignment/ Project-Indifference Curves and Consumer Equilibrium, Elasticity Of Demand and methods of measurement ,Forecasting of demand-objective and methods** | | | | | | | |
| 24 | **Production Analysis And Productivity** | **Unit-3** | **Theory of Production** | | | | |
| 25 | | | Meaning and Concept of Production Function | Lecture | 1,2 | 12/11 | Sunita |
| 26 | | | Small, Medium, Large Scale Production Unit | Lecture | 1,2 | 13/11 | Sunita |
| 27 | | | Factors of Production and Production Function | Lecture | 1,2 | 14/11 | Sunita |
| 28 | | | Fixed and Variable Factors | Lecture | 1,2 | | Sunita |
| 29 | | | For Small Scale Business | Lecture | 1,2 | 18/11 | Sunita |
| 30 | | | Short Run Production Analysis | Lecture | 1,2 | 19/11 | Sunita |
| 31 | | | For Large Scale Business | Lecture | 1,2 | 20/11 | Sunita |
| 32 | | | Long Run Production Analysis | Lecture | 1,2 | | Sunita |
| 33 | | | Types of Costs-Short and Long Term | Lecture | 1,2 | 21/11 | Sunita |
| 34 | | | Economies and Diseconomies of Scale | Lecture | 1,2 | | |
| **Self- Work/ Assignment/ Project-Production-Laws of variable proportion, Laws of returns to scale, Economies and Diseconomies of Scale and Cost.** | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Cost Analysis and Market Analysis** | **Unit-4** | **Cost Analysis and Price out put Decision** | | | | |
| 35 | | | Pricing under Perfect Competition | Lecture | 1,2 | 27/11 | |
| 36 | | | Pricing Under Monopoly, control and Price Discrimination | Lecture | 1,2 | 28/11 | |
| 37 | | | MCQ-Test /Revision | | | 28/11 | |
| 38 | | | Pricing under Monopoly Competition | Lecture | 1,2 | | |
| 39 | | | Pricing under Oligopoly Competition | Lecture | 1,2 | 5/12 | |
| 40 | | | Cournot Model, Kinked demand curve Model) | Lecture | 1,2 | | |
| **Self -Work/ Assignment/ Project-Difference in Perfect and Monopolistic Competitive Market, Difference in Monopoly and Oligopoly, Cornot Model and P.M. Sweezy Model** | | | | | | | |

**Text and Reference Books:**


1. Samuelsons, Nordhaus, W.D Economics, Tata Mcgraw Hill.
2. Diwedi D.N. Managerial Economics, Vikas Publishing House
3. Thomas, CR, Managerial Economics, Mcgraw Hill Education
4. Mankin, N.G. Principles of Economics, Cengage Learning
5. Petersons.L.and Jain , Managerial Economics, Pearsons Education
6. Kreps D.,Micro Economics for Managers,Viva Books Pvt.Ltd.


**NAME & SIGNATURE OF FACULTY** **HOD** **DIRECTOR**

**MBS COLLEGE**
**Sector-9, PSP Area, Dwarka, New Delhi-110077**
**Affiliated to GGSIPU and Approved by AICTE**

## LECTURE PLAN & RESOURCES

**Academic year-2025-2026**

**Programme: BBA** **Semester: 1**

**Subject- Entrepreneurial Mindset (NUES)** **Code: 109**

**Credits:** 02 **L/T:** 2/0

| | |
|---|---|
| CO1 | Understand the basic concepts of entrepreneur and his role in economy. |
| CO2 | Efficient usage of entrepreneurial skills in decision making. |
| CO3 | Knowledge about how to search new opportunities and scanning business environment. |
| CO4 | Knowledge about how to develop business plan, identifying sources of finance and legal requirements for starting business. |

**Mapping the Course Outcomes with Programme Outcomes**

| COs | Detailed Course Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|---|
| CO1 | Understand the basic concepts of entrepreneur and his role in economy. | 2 | 1 | 1 | 1 | 1 |
| CO2 | Efficient usage of entrepreneurial skills in decision making. | 2 | 3 | 2 | 2 | 1 |
| CO3 | Knowledge about how to search new opportunities and scanning business environment. | 2 | 2 | 1 | 3 | 3 |
| CO4 | Knowledge about how to develop business plan, identifying sources of finance and legal requirements for starting business. | 2 | 2 | 2 | 2 | 1 |
| Average | | 2 | 2 | 1.5 | 2 | 1.5 |

**Lecture Plan (Theory)**

| | | | |
|---|---|---|---|
| **Subject Code:** | 107 | **Subject Name:** | Entrepreneurial Mindset (NUES) |
| **No of credits:** | 02 | **Total No. of Lectures / Semester:** | 30 |

| Unit | Topic | Learning Objective | Teaching Method | ICT Tool | CO | No of Lectures | Date |
|---|---|---|---|---|---|---|---|
| Unit I | Meaning and Concept of Entrepreneurship; The Entrepreneur | Explain entrepreneurship, the entrepreneur and their role in business and the economy. | Lecture | PPT | CO1 | 1 | 20/8/25 |
| Unit I | Theories of Entrepreneurship | Explain major theories of entrepreneurship and their relevance. | Lecture | PPT | CO1 | 1 | 21/8/25 |
| Unit I | Characteristics of Successful Entrepreneurs | Identify characteristics associated with successful entrepreneurs. | Lecture + Discussion | PPT + Videos | CO1 | 1 | 27/8/25 |
| Unit I | Myths of Entrepreneurship | Distinguish common myths from realistic | Lecture + Discussion | PPT | CO1 | 1 | 28/8/25 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | perspectives on entrepreneurship. | | | | | |
| Unit I | Entrepreneurial Mindset and Creativity | Explain entrepreneurial mindset and its relationship with creativity. | Lecture | PPT | CO1 | 1 | 6/9/25 |
| Unit I | Steps to Generate Creative Ideas and Developing Creativity | Apply structured steps to generate and develop creative business ideas. | Activity / Discussion | PPT + Online Tools | CO1 | 1 | 8/9/25 |
| Unit I | Innovation: Meaning and Types of Innovation | Explain innovation and distinguish different types of innovation. | Lecture + Case Study | PPT + Case Material | CO1 | 1 | 9/9/25 |
| Unit II | Meaning and Process of Opportunity Analysis | Explain the process of identifying and analysing entrepreneurial opportunities. | Lecture | PPT | CO2 | 1 | 12/9/25 |
| Unit II | Identification and Evaluation of Business Opportunities | Evaluate potential business opportunities using relevant criteria. | Lecture + Discussion | PPT + Case Material | CO2 | 1 | 15/9/25 |
| Unit II | External Environment Analysis: Economic Environment | Analyse economic factors affecting entrepreneurial opportunities. | Lecture | PPT | CO2 | 1 | 19/9/25 |
| Unit II | External Environment Analysis: Social Environment | Analyse social factors affecting entrepreneurial opportunities. | Lecture | PPT + Case Material | CO2 | 1 | 22/9/25 |
| Unit II | External Environment Analysis: Technological Environment | Assess technological factors and their impact on new ventures. | Lecture + Discussion | PPT + Videos | CO2 | 1 | 24/9/25 |
| Unit II | Business Plan: Meaning, Need and Importance | Explain the purpose, need and importance of a business plan. | Lecture | PPT | CO2 | 1 | 26/9/25 |
| Unit II | Parts / Components of a Business Plan | Identify and explain the key components of a business plan. | Lecture + Case Study | PPT + Case Material | CO2 | 1 | 29/9/25 |
| Unit II | Writing a Business Plan | Develop a structured business plan using the prescribed components. | Practical / Workshop | PPT + Word/Excel | CO2 | 1 | 3/9/25 |
| Unit III | Entrepreneurial Development Programme (EDP): Meaning, Objectives and Importance | Explain EDPs and their objectives and importance. | Lecture | PPT | CO3 | 1 | 6/10/25 |
| Unit III | Structure and Components of Entrepreneurial Development Programmes | Describe the structure and major components of EDPs. | Lecture + Discussion | PPT | CO3 | 1 | 8/10/25 |
| Unit III | Role of Government in Organizing EDPs | Explain the role of government in supporting EDPs. | Lecture | PPT + Videos | CO3 | 1 | 10/10/25 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Unit III | Institutions Supporting Small Business Enterprises – Central Level | Identify central-level institutions supporting small businesses. | Lecture | PPT | CO3 | 1 | 24/10/25 |
| Unit III | Institutions Supporting Small Business Enterprises – State Level | Identify state-level institutions supporting small businesses. | Lecture | PPT | CO3 | 1 | 24/10/25 |
| Unit III | Other Agencies Supporting Entrepreneurship and Small Businesses | Explain the contribution of other agencies to entrepreneurship development. | Lecture + Discussion | PPT + Case Material | CO3 | 1 | 27/10/25 |
| Unit III | Industry Associations and Their Role in Entrepreneurship Development | Analyse how industry associations support entrepreneurship and networking. | Lecture + Case Study | PPT + Case Material | CO3 | 1 | 31/10/25 |
| Unit IV | Presentation of a Business Plan – Structure and Key Elements | Present the structure and key elements of a business plan effectively. | Practical / Presentation | PPT | CO4 | 1 | 3/11/25 |
| Unit IV | Presentation of Business Plans by Students | Demonstrate communication, presentation and business-planning skills. | Student Presentation | PPT | CO4 | 1 | 7/11/25 |
| Unit IV | Project on Startup India / Government Policy on Entrepreneurship | Examine a government entrepreneurship initiative and communicate its relevance. | Project Discussion | PPT + Internet Resources | CO4 | 1 | 10/11/25 |
| Unit IV | Discussion: Why Startups Fail – Causes and Lessons | Analyse causes of startup failure and derive entrepreneurial lessons. | Case Study / Discussion | Videos + Case Material | CO4 | 1 | 14/11/25 |
| Unit IV | Role of MSMEs in Entrepreneurship and Economic Development | Explain the role of MSMEs in entrepreneurship and economic development. | Lecture + Discussion | PPT + Videos | CO4 | 1 | 17/11/25 |
| Unit IV | Role of Entrepreneur in Economic Growth | Analyse how entrepreneurs contribute to economic growth. | Lecture + Case Study | PPT + Case Material | CO4 | 1 | 21/11/25 |
| Unit IV | Technology Parks and Their Role in Entrepreneurship Development | Explain how technology parks support innovation and entrepreneurial ventures. | Lecture + Discussion | PPT + Videos | CO4 | 1 | 24/11/25 |
| Unit IV | Case Study Discussion on Successful Indian Entrepreneurs | Evaluate successful Indian entrepreneurial cases and identify lessons. | Case Study / Presentation | PPT + Case Material | CO4 | 1 | 26/11/25 |

**E-resources and other study material**

Startup India Learning Programme; Startup India Portal; Startup India Seed Fund Scheme.

Ministry of MSME – Entrepreneurship & Skill Development Programmes; Udyam Registration Portal.

Atal Innovation Mission and relevant case studies on Indian entrepreneurs and startups.

| Faculty Name and Sign | HoD's Name and Sign | Remarks (if any) |
|---|---|---|
| Dr. Sweta Dabas<br>Assistant Professor | | |

# MBS COLLEGE

## SCHOOL OF MANAGEMENT

**Class BBA Semester I**

**Lesson Plan for Subject: Life Skills & Personality Development**

| Course: BBA I Sem. | Paper Code: BBA 111 | Academic Year: 2025-26 |
|---|---|---|

## Course Outcomes (COs)

CO1: Develop effective communication skills.

CO2: Demonstrate team work and leadership qualities.

CO3: Enhance confidence and personality traits.

CO4: Apply presentation and interview skills in professional settings.

## Programme Outcomes (POs)

PO1: Effective communication.

PO2: Team work and leadership.

PO3: Ethical and professional conduct.

PO4: Critical thinking.

PO5: Lifelong learning.

## CO–PO Mapping Matrix

| CO / PO | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|
| CO1 | 3 | 2 | 2 | 2 | 1 |
| CO2 | 2 | 3 | 2 | 2 | 1 |
| CO3 | 2 | 2 | 3 | 2 | 1 |
| CO4 | 3 | 2 | 2 | 3 | 2 |

Scale: 3 = High, 2 = Moderate, 1 = Low

## Unit I: Communication Basics

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 1 | Understand communication | Meaning & process of communication | Lecture | Bovee | 11/09/25 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Types of communication | Verbal & non-verbal Communication | Lecture | Bovee | 15/09/25 | — |
| 3 | Improve effectiveness | Barriers to communication | Lecture | Lesikar | 19/09/25 | — |
| 4 | Listening skills | Effective listening | Activity | Bovee | 19/09/25 | — |
| 5 | Speaking skills | Effective speaking | Activity | Lesikar | 22/09/25 | — |
| 6 | Revision | Unit I revision | Discussion | All | 22/09/25 | — |

## Unit II: Team Spirit & Group Discussion

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 7 | Team work | Importance of team spirit | Lecture | Bovee | 26/09/25 | — |
| 8 | Team task | Team task & management games | Activity | Bovee | 29/09/25 | — |
| 9 | Research skills | Preparing team presentations | Presentation | All | 29/09/25 | — |
| 10 | Group discussion | Concept & objectives of GD | Lecture | Lesikar | 3/10/25 | — |
| 11 | Mock GD | Mock group discussion | Activity | All | 3/10/25 | — |
| 12 | Evaluation | Feedback & improvement | Discussion | All | 6/10/25 | — |

## Unit III: Confidence & Personality

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 13 | Personality | Concept of personality | Lecture | Gupta | 6/10/25 | — |
| 14 | Confidence | Building self-confidence | Lecture | Gupta | 10/10/25 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| 15 | Video resume | Preparing video resume | Ac tivity | All | 10/10/25 | — |
| 16 | Debate skills | Debate techniques | Activity | All | 13/10/25 | Topic |
| 17 | Critical thinking | Logical thinking & articulation | Discussion | Gupta | 13/10/25 | — |
| 18 | Revision | Unit III review | Discussion | All | 17/10/25 | — |

## Unit IV: Personality Development & Interview Skills

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 19 | Presentation skills | Effective presentation skills | Lecture | Bovee | 17/10/25 | — |
| 20 | Current affairs | Presentation on current topics | Presentation | All | 27/10/25 | — |
| 21 | Body language | Verbal & non-verbal expression | Activity | Gupta | 27/10/25 | — |
| 22 | Interview skills | Interview preparation | Lecture | Gupta | 31/10/25 | — |
| 23 | Mock interview | One-to-one interview | Activity | All | 31/10/25 | — |
| 24 | Feedback | Interview feedback | Discussion | All | 10/11/25 | — |
| 25 | Professional etiquette | Corporate etiquette | Lecture | Gupta | 10/11/25 | — |
| 26 | Stress handling | Stress & time management | Lecture | Gupta | 13/11/25 | — |
| 27 | Ethics | Professional ethics | Discussion | All | 17/11/25 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| 28 | Career skills | Career readiness skills | Lecture | Gupta | 17/11/25 | — |
| 29 | Assessment | Overall assessment | Activity | All | 21/11/25 | — |
| 30 | Conclusion | Course wrap-up | Discussion | All | 21/11/25 | |

## Text Books

1. Bovee, C. L. & Thill, J. V. – Business Communication Today, Pearson.
2. Gupta, S. – Personality Development and Soft Skills, McGraw Hill.

## Reference Books

3. Lesikar, R. V. – Business Communication, McGraw Hill.
4. Raman, M. & Sharma, S. – Technical Communication, Oxford University Press.

## Unit-wise Digital Learning Resources

Unit I:
https://www.youtube.com/watch?v=9X4h5JZzJHk

Unit II:
https://www.youtube.com/watch?v=QyJ1y5p4G2M

Unit III:
https://www.youtube.com/watch?v=Y2xFzGZKX8E

Unit IV:
https://www.youtube.com/watch?v=7Pz1HkLQw4

21/11/25

**FACULTY SIGNATURE** **DEPUTY DIRECTOR** **DIRECTOR**

# MBS COLLEGE

(Affiliated to GGSIP University)
DEPARTMENT OF MANAGEMENT

## LESSON PLAN FOR IT APPLICATIONS IN BUSINESS (BBA-111)

SEMESTER : BBA I
ACADEMIC YEAR : 2025-26

PAPER CODE : BBA-113
FACULTY NAME: Ms. Sarita Nehra

### LEARNING OBJECTIVES:

The objective of this course is to provide learners with:

1. Knowledge about basic concepts of IT (hardware, software, networking, databases).
2. Understanding of application of IT in business functions.
3. Skills to use MS Office tools (Word, Advanced Excel) for solving business problems.
4. Awareness about internet services, e-commerce and security issues.
5. Understanding of IT's role in various industries such as banking, insurance, healthcare, education, etc.

PRE-REQUISITES: None

### COURSE OUTCOMES (COs):

After completion of this course, the learners will be able to:

| CO | Detailed Statement of the CO | BT Level | Mapping to PO |
|---|---|---|---|
| CO1 | Explain the concepts of IT (Hardware, Software, Networking, Security, Web and Applications). | BTL2 | PO1, PO2, PO3, PO4, PO5 |
| CO2 | Analyze the usage of IT products and services. | BTL3 | PO1, PO2, PO3, PO4, PO5 |
| CO3 | Use internet web services and resources for learning and discovery. | BTL3 | PO1, PO2, PO4 |
| CO4 | Explore the usage of tools of MS Word and Advanced Excel to solve business problems. | BTL4 | PO1, PO4 |

| CO | Detailed Statement of the CO | BT Level | Mapping to PO |
|---|---|---|---|
| CO5 | Comprehend the role of databases in IT applications. | BTL2 | PO1, PO2, PO3 |

# LESSON PLAN

| S. No. | Topic | Resources | | Mode of Delivery | Date of Delivery | SIGN |
|---|---|---|---|---|---|---|
| | | Complete Book Reference | URL of Digital Source | | | |
| 1 | Overview of Unit I | | | Lecture (Verbally with Board) | 12/9 | |
| 2 | Unit-I Basics of Information Technology: introduction, definition, Computer System parts, Components of IT systems, Characteristics of Computer, Computer Generation: (First Generation, Second generation, Third Generation, Fourth Generation, Fifth Generation) | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House.,SR3 | https://www.youtube.com/watch?v=PhW08LeQTg0 https://www.youtube.com/watch?v=NqgpZ_v4Ne8 | Lecture (Verbally with help of ppt) | 12/9 | |
| 3 | Classification of Computers According to Size/ Types of Digital Computers: (Micro, Mini, Mainframe, Super), Computer Hardware: Components of Digital Computer, Computer Block Diagram: Central processing unit(ALU, Control unit, Memory) Input-Output Devices Importance of Input/output devices | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://www.youtube.com/watch?v=z1lsbOurqO4 https://www.youtube.com/watch?v=b04iBCyP52o | Lecture (Verbally with Board) | 12/9 | |
| 4 | Input device: Joystick and its working, light pen and its working, Touch screen and its working, speech recognition and its working, Digital camera and its working, Scanners( hand-held scanner and its working, | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://www.youtube.com/watch?v=RL3-YhMKIIw | Lecture (Verbally with help of ppt) | 12/9 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Flat-Bed scanner and its working), Optical Scanner | | | | | |
| 5 | Output Devices: Types of Output devices (hard Copy and soft Copy) Computer Monitor, Liquid Crystal Display, difference between LCD and CRT , Plotter ( Drum Plotters and Flatbed Plotters), Working of Plotter, Daisy wheel Printer and its working, Drum printers and its working, ink-jet Printers and its working, laser Printer and its working, | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://www.youtube.com/watch?v=RL3-YhMKIlw | Lecture (Verbally with help of ppt) | 16/9 | |
| 6 | Computer Memory: Memory Cell ( Bit, byte, Kilobyte, Megabyte, gigabyte, terabyte), Memory Organization ( Internal Processor , Memory, Primary Memory, Secondary Memory), ROM : Types of ROM ( masked ROM, PROM, EPROM, EEPROM),RAM: Types of RAM, Secondary memory : Hard Disk, Floppy Disk, CD-ROM, Magnetic Tape | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://www.youtube.com/watch?v=zwovvWfkuSg https://www.youtube.com/watch?v=w04AMAeR60k | Lecture (Verbally with help of ppt) | 16/9 | |
| 7 | Concept of Cloud Computing | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://azure.microsoft.com/en-in/overview/what-is-cloud-computing/#cloud-computing-models | Lecture (Verbally with help of ppt) | 16/9 | |
| 8 | Revision Class | | - | | 19/9 | |
| 9 | Overview of Unit II | | https://drive.google.com/file/d/1ImKplx3Jm4pNYsMzA5YWzs6JRf48sxYW/view?usp=sharing | | 19/9 | |
| 10 | Types of Software: System Software & Application Software. System Software: ( Operating System, language translators, system utilities ) | Dhingra S and Tondon, A(1st Ed,2015), Introduction to Information Technology,Galgotia Publishing House. | https://www.youtube.com/watch?v=riRKu15_dCE | Lecture (Verbally with Board) | 19/9 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 11 | Database Concepts | | https://www.w3schools.in/sql/database-concepts/ | Lecture (Verbally with Board) | 22/9 | |
| 12 | Operating System: Introduction, Definition, Measuring system performance | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://www.youtube.com/watch?v=RozoeWzT7IM&t=83s | Lecture (Verbally with help of ppt) | 23/9 | |
| 13 | Types of Operating System( batch Processing, Time-Sharing or Multi-user, Multi-tasking, Real-Time, Multi-Processor, Embedded), Functions of Operating System: File Management, Memory Management, Process management, device management, Security management | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://www.youtube.com/watch?v=PY6zEUELn8s | Lecture (Verbally with help of ppt) | 23/9 | |
| 14 | Introduction to GUI | | | Lecture (Verbally with help of ppt) | 26/9 | |
| 15 | Programming Languages: Low Level (its advantages and disadvantages) , Assembly language (its advantages and disadvantages ), | Bhel R(2nd Ed,2012), Information Technology for Management, McGraw Hill Education. | https://www.youtube.com/watch?v=aYjGXzktatA | Lecture (Verbally with help of ppt) | 26/9 | |
| 16 | High Level language (its advantages and disadvantages) , Language Translators: Assemblers, Compilers, Linkers | Dhingra S and Tondon, A(1st Ed,2015), Introduction to Information Technology,Galgotia Publishing House. | https://www.youtube.com/watch?v=aYjGXzktatA | Lecture (Verbally with help of ppt) | 29/9 | |
| 17 | Difference between different language Translators | Leaon and Leaon,(2nd Ed. 2012), Introduction to Information Technology, Vikas Publishing House. | https://www.youtube.com/watch?v=qcEBXrqFLe8 | Lecture (Verbally with help of ppt) | 29/9 | |
| 18 | Revision Class | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 19 | Overview of Unit III | | | Lecture (Verbally with Board) | 3/10 | |
| 20 | Desktop Components: introduction to Word Processor | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=6GZ2VRrNRic | Lecture (Verbally with help of ppt) | 3/10 | |
| 21 | Functioning of Word Processor | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=E7E56fEwGWk | Lecture (Verbally with help of ppt) | 6/10 | |
| 22 | Introduction to Presentation Software | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=o_CeK6nhpy0 | Lecture (Verbally with help of ppt) | 10/10/25 | |
| 23 | Advanced Excel: Introduction, features, Applications and advanced functions of Excel, Creating Tables, Graphs and charts | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=ezA8RPqkExY https://www.youtube.com/watch?v=9TIBg3398kE | Lecture (Verbally with help of ppt) | 13/10 | |
| 24 | Table formatting, Worksheet Management, Sort and Filters tools, | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=O28-xL5YGkE | Lecture (Verbally with help of ppt) | 15/10 | |
| 25 | Subtotal, Mathematical Functions, Statistical functions | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=azbxh7zkwj0 | Lecture (Verbally with help of ppt) | 17/10 | |

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|---|---|---|---|---|---|---|
| 26 | Date and time Functions, Text Functions, Financial Functions | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=azbxh7zkwj0 | Lecture (Verbally with help of ppt) | 28/10/25 | |
| 27 | Analyze data with Pivot Table | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=mFr9mERLEdU | Lecture (Verbally with help of ppt) | 10/11 | |
| 28 | Create and Manage Scenarios and Summaries | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=9dV2unynO_E | Lecture (Verbally with help of ppt) | 10/11 | |
| 29 | Create and Manage Scenarios and Summaries | Joseph A. Brady and Ellen F Monk,(2012), Problem Solving Cases in Microsoft and Excel, Thomson Learning. | https://www.youtube.com/watch?v=9dV2unynO_E | Lecture (Verbally with help of ppt) | 11/11 | |
| 30 | Revision Class | | | | 11/11 | |
| 31 | Unit –IV Overview | | | Lecture (Verbally with Board) | 14/11 | |
| 32 | Computer Network and IT Application: Data Communication System : Definition, Components of data Communication, Data Transmission- Modes ( Simplex, half-Duplex and Full duplex), Speed | Tanenbaum, A.S.,(4th Ed.2011),Computer Networks, Pearson Education. | https://www.youtube.com/watch?v=Hizdc4XVJ1E | Lecture (Verbally with help of ppt) | 14/11 | |
| 33 | Types of Communication Media : Guided media (Twisted pair, Coaxial cable, Optical fiber) and Unguided media( radio frequency, Microwave and satellite) | Tanenbaum, A.S.,(4th Ed.2011),Computer Networks, Pearson Education. | https://www.youtube.com/watch?v=xHyJNkiGRd8 | Lecture (Verbally with Board) | 17/11 | |
| 34 | Concept of Computer Networks, Network Topologies: Bus Topology, | Tanenbaum, A.S.,(4th | https://www.youtube.com/watch? | | 17/11 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | its advantages and disadvantages, Ring Topology , its advantages and disadvantages, Star Topology and , its advantages and disadvantages, | Ed.2011),Computer Networks, Pearson Education. | v=gGTDFG2Q_UM | | 18/11 | |
| 35 | Tree Topology , its advantages and disadvantages, Mesh Topology, , its advantages and disadvantages | Tanenbaum, A.S.,(4th Ed.2011),Computer Networks, Pearson Education. | https://www.youtube.com/watch?v=gGTDFG2Q_UM | | 18/11 | |
| 36 | Computer Network : Introduction, types( LAN, WAN, MAN) | Tanenbaum, A.S.,(4th Ed.2011),Computer Networks, Pearson Education. | https://www.youtube.com/watch?v=ZdOqrDd2Xj8 | Lecture (Verbally with help of ppt) | 18/11 | |
| 37 | Client and Server Technology, Intranet: introduction, benefits , Limitation, Extranet : introduction, benefits , Limitation | Tanenbaum, A.S.,(4th Ed.2011),Computer Networks, Pearson Education. | https://www.youtube.com/watch?v=Im-gKjo3MGQ | Lecture (Verbally with help of ppt) | 21/11 | |
| 38 | Addressing System: letter and Number , Domain Name, DNS Structure, Web Search Engine , | Tanenbaum, A.S.,(4th Ed.2011),Computer Networks, Pearson Education. | https://www.youtube.com/watch?v=vhfRArT11jc | Lecture (Verbally with help of ppt) | 21/11 | |
| 39 | Networking Devices | Tanenbaum, A.S.,(4th Ed.2011),Computer Networks, Pearson Education. | https://www.youtube.com/watch?v=0pMm_QxCg3I | Lecture (Verbally with help of ppt) | 26/11 | |
| 40 | Information Technology and Society: Indian IT Act, Application of information Technology in Railways, Airlines, Banking, Insurance, Inventory Control | Bhel R(2nd Ed,2012), Information Technology for Management, McGraw Hill Education.,Goyal, Anita,(2012) Computer Fundamentals, Pearson Education | https://www.youtube.com/watch?v=07B77SUSGzE | Lecture (Verbally with help of ppt) | 26/11 | |
| 41 | Financial systems, Hotel management, Education, entertainment and health, security issues in information technology | Bhel R(2nd Ed,2012), Information Technology for Management, | https://www.youtube.com/watch?v=07B77SUSGzE | Lecture (Verbally with help of ppt) | 26/11 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 42 | Revision Class, Previous Years Question Paper Discussion | | | | 26/11 | |
| 43 | Overview of Unit V | | | | 26/11 | |
| 44 | Data Representation:Number System, Binary addition and subtraction, Signed and unsigned number representations, BCD, ASCII and EBCDIC code | | https://www.youtube.com/watch?v=MPMX7TKcGis | Lecture (Verbally with help of ppt) | 1/12 | |
| 45 | Emerging technologies: Artificial Intelligence, Internet of things(IoT),Block chain, Hybrid Cloud, Quantum computing | | https://www.youtube.com/watch?v=pWWOEcd7f6k | Lecture (Verbally with help of ppt) | 2/12 | |
| 46 | DOS Commands: Types of DOS commands,dir,cd,chdir,date,echo,exit,find,for,goto,md,mkdir,move,path,print,rem,rmdir,time,tree | | https://www.youtube.com/watch?v=MNwErTxfkUA | Lecture (Verbally with help of ppt) | 4/12 | |
| 47 | Multimedia: Features of multimedia system, Multimedia elements, Multimedia authoring tools, Applications of multimedia. | | https://www.youtube.com/watch?v=QTSxL27GzqA | Lecture (Verbally with help of ppt) | 4/12 | |
| 48 | Computer Security: Introduction, Types of computer crimes, Firewalls, Malicious computer programs. | | https://www.youtube.com/watch?v=d30n-YxOHo4 | Lecture (Verbally with help of ppt) | 5/12 | |

TEXT BOOKS:


1. C Leon, Introduction to Information Technology, Vikas Publishing House
2. Behl R., Information Technology for Management, McGraw Hill Education
3. Dhingra S and Tondon A, Introduction to Information Technology, Galgotia Publishing House.
4. Joseph A.Brady and Ellen F Monk, Problem Solving Cases in Microsoft and Excel, Thomson Learning
5. Tanenbaum, A. S, Computer Networks, Pearson Education.
6. Goyal, Anita, Computer Fundamentals, Pearson Education.


Subject Faculty  Programme Director  HOD  Director

# MBS COLLEGE

**Affiliated to GGSIPU and Approved by CoA & AICTE**
**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

## Lesson Plan for Marketing Management

**Programme: BBA A Semester: II Paper Code: 102 Academic Year: 2025-2026**

No of hours allotted to complete the syllabi*: 60 (mentioned in the syllabus)

**Course Objective: (mentioned in the syllabus)**

This course aims to develop students' understanding of fundamental marketing concepts, strategies, and applications, equipping them with the skills to analyze markets, design marketing mix, and adapt to emerging trends and technologies in marketing.

**CO PO mapping: (mentioned in the syllabus)**

| Lecture-No | Lecture Objective | Topic/ Module Details with subtopics | Methodology Lecture/PPT/ Assignment/Case Study | Reference /text book | Date on which delivered | PD Remark |
|---|---|---|---|---|---|---|
| L-1 | UNIT- 1 Introduce marketing concepts | Meaning, scope & importance of marketing | Lecture | R1 | 19/2/26 | |
| L-2 | Understand marketing philosophies | Marketing philosophies | Lecture | R1 | 20/2/26 | |
| L-3 | Analyze marketing environment | Macro & Micro environment | Lecture | R1 | 21/2/26 | |
| L-4 | Understand consumer behavior | Consumer decision making process | Lecture | R1 | 22/2/26 | |
| L-5 | Explain market segmentation | Levels & bases of segmentation | Lecture | R1 | 27/2/26 | |
| L-6 | Understand targeting strategies | Market targeting concepts | Lecture | R1 | 28/2/26 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-7 | Explain positioning | Product positioning & bases | Lecture | R1 | 29/2/26 | |
| L-8 | Apply STP concepts | STP framework application | Case Study | R2 | 3/3/26 | |
| L-9 | UNIT-2 Understand product concepts | Product concept & classification | Lecture | R2 | 10/2/26 | |
| L-10 | Explain product levels | Levels of product | Lecture | R2 | 16/2/26 | |
| L-11 | Understand product concepts | Product concept & classification | Lecture | R2 | 17/2/26 | |
| L-12 | Discuss branding | Branding decisions | Lecture | R2 | 17/2/26 | |
| L-13 | Understand NPD | New product development | Lecture | R2 | 20/2/26 | |
| L-14 | Explain PLC | Product life cycle | Lecture | R2 | 23/2/26 | |
| L-15 | Understand pricing | Pricing objectives & factors | Lecture | R2 | 23/2/26 | |
| L-16 | Apply pricing strategies | Pricing methods & strategies | Lecture | R2 | 24/2/26 | |
| L-17 | Understand distribution | Channels of distribution | Lecture | R2 | 5/3/26 | |
| L-18 | Analyze channel choice | Factors affecting channel choice | Lecture | R2 | 6/3/26 | |
| L-19 | Understand channel management | Channel management | Lecture | R1 | 11/3/26 | |
| L-20 | Understand promotion mix | Promotion mix tools | Lecture | R1 | 12/3/26. | |
| L-21 | Explain advertising | Advertising decisions | Lecture | R1 | 13/3/26 | |
| L-22 | Explain sales promotion | Sales promotion & PR | Lecture | R1 | 17/3/26. | |
| L-23 | Understand IMC | Integrated marketing communication | Lecture | R3 | 17/3/26 | |
| L-24 | UNIT 3 Introduce emerging trends | Relationship & sustainable marketing | Lecture | R3 | 18/3/26. | |
| L-25 | Understand green marketing | Green & social marketing | Lecture | R3 | 19/3/26 | |
| L-26 | Explain digital marketing | Digital & social media marketing | Lecture | R3 | 30/3/26 | |
| L-27 | Understand AI in marketing | AI & robotics in marketing | Lecture | R3 | 31/4/26 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-28 | Discuss ethics | Ethical issues in marketing | Lecture | R3 | 2/4/26 | |
| L-29 | Introduce emerging trends | Relationship & sustainable marketing | Lecture | R3 | 9/4/26 | |
| L-30 | Delivering Value | Content support | Lecture | R3 | 16/4/26 | |
| L-31 | UNIT 4 Choice of Distribution | Type of distribution | Lecture | R3 | 16/4/26 | |
| L-32 | Channel Management | Channel Management and its applications | Lecture | R3 | 17/4/26 | |
| L-33 | Promotion Decisions | Communication Process | Lecture | R3 | 20/4/26 | |
| L-34 | Tools of promotions | Tools and its advantage | Lecture | R3 | 21/4/26 | |
| L-35 | Advertising | Advertising and its applications | Lecture | R3 | 22/4/26 | |
| L-36 | Personal Selling | Sales Promotions | Lecture | R3 | 24/4/26 | |
| L-37 | Public Relations | Classifications | Lecture | R2 | 28/4/26 | |
| L-38 | Relationship Mgmt | Understanding of relationship | Lecture | R2 | 29/4/26 | |
| L-38 | Social Marketing | Types of social marketing | Lecture | R2 | 29/4/26 | |
| L-39 | Digital Marketing | Concept of Digital Marketing | Lecture | R2 | 29/4/26 | |
| L-40 | Role of AI | AI implications in Marketing | Lecture | R2 | 5/5/26 | |
| L-41 | Ethical concerns | Concern of ethical issues | Lecture | R2 | 6/5/26 | |

***References:***


1. Kotler & Keller Marketing Management, Pearson Education.
2. Panda T.K. Marketing Management text and cases Taxmann.
3. Sinha P.K. Marketing (Asian Edition) Oxford University.


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**Lesson Plan for Marketing Management**

| **Programme: BBA B** | **Semester: II** | **Paper Code: 102** | **Academic Year: 2025-2026** |
|---|---|---|---|

No of hours allotted to complete the syllabi*: 60 (mentioned in the syllabus)

**Course Objective: (mentioned in the syllabus)**

This course aims to develop students' understanding of fundamental marketing concepts, strategies, and applications, equipping them with the skills to analyze markets, design marketing mix, and adapt to emerging trends and technologies in marketing.

**CO PO mapping: (mentioned in the syllabus)**

| Lecture-No | Lecture Objective | Topic/ Module Details with subtopics | Methodology Lecture/PPT/ Assignment/Case Study | Reference /text book | Date on which delivered | PD Remark |
|---|---|---|---|---|---|---|
| L-1 | UNIT- 1 Introduce marketing concepts | Meaning, scope & importance of marketing | Lecture | R1 | 19/2/26 | |
| L-2 | Understand marketing philosophies | Marketing philosophies | Lecture | R1 | 20/2/26 | |
| L-3 | Analyze marketing environment | Macro & Micro environment | Lecture | R1 | 21/2/26 | |
| L-4 | Understand consumer behavior | Consumer decision making process | Lecture | R1 | 22/2/26 | |
| L-5 | Explain market segmentation | Levels & bases of segmentation | Lecture | R1 | 23/2/26 | |
| L-6 | Understand targeting strategies | Market targeting concepts | Lecture | R1 | 24/2/26 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-7 | Explain positioning | Product positioning & bases | Lecture | R1 | 29/2/26 | |
| L-8 | Apply STP concepts | STP framework application | Case Study | R2 | 3/3/26 | |
| L-9 | UNIT-2 Understand product concepts | Product concept & classification | Lecture | R2 | 10/2/26 | |
| L-10 | Explain product levels | Levels of product | Lecture | R2 | 16/2/26 | |
| L-11 | Understand product concepts | Product concept & classification | Lecture | R2 | 16/2/26 | |
| L-12 | Discuss branding | Branding decisions | Lecture | R2 | 18/2/26 | |
| L-13 | Understand NPD | New product development | Lecture | R2 | 17/2/26 | |
| L-14 | Explain PLC | Product life cycle | Lecture | R2 | 23/2/26 | |
| L-15 | Understand pricing | Pricing objectives & factors | Lecture | R2 | 25/2/26 | |
| L-16 | Apply pricing strategies | Pricing methods & strategies | Lecture | R2 | 24/2/26 | |
| L-17 | Understand distribution | Channels of distribution | Lecture | R2 | 26/2/26 | |
| L-18 | Analyze channel choice | Factors affecting channel choice | Lecture | R2 | 5/3/26 | GD |
| L-19 | Understand channel management | Channel management | Lecture | R1 | 11/2/26 | |
| L-20 | Understand promotion mix | Promotion mix tools | Lecture | R1 | 3/26 | |
| L-21 | Explain advertising | Advertising decisions | Lecture | R1 | 13/3/26 | |
| L-22 | Explain sales promotion | Sales promotion & PR | Lecture | R1 | 16/3/26 | |
| L-23 | Understand IMC | Integrated marketing communication | Lecture | R3 | 18/3/26 | |
| L-24 | UNIT 3 Introduce emerging trends | Relationship & sustainable marketing | Lecture | R3 | 19/3/26 | |
| L-25 | Understand green marketing | Green & social marketing | Lecture | R3 | 23/3/26 | |
| L-26 | Explain digital marketing | Digital & social media marketing | Lecture | R3 | 30/3/26 | |
| L-27 | Understand AI in marketing | AI & robotics in marketing | Lecture | R3 | 01/4/26 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-28 | Discuss ethics | Ethical issues in marketing | Lecture | R3 | 2/4/26 | |
| L-29 | Introduce emerging trends | Relationship & sustainable marketing | Lecture | R3 | 9/4/26 | |
| L-30 | Delivering Value | Content support | Lecture | R3 | 15/4/26 | |
| L-31 | UNIT 4 Choice of Distribution | Type of distribution | Lecture | R3 | 16/4/26 | |
| L-32 | Channel Management | Channel Management and its applications | Lecture | R3 | 17/4/26 | |
| L-33 | Promotion Decisions | Communication Process | Lecture | R3 | 20/4/26 | |
| L-34 | Tools of promotions | Tools and its advantage | Lecture | R3 | 21/4/26 | |
| L-35 | Advertising | Advertising and its applications | Lecture | R3 | 22/4/26 | |
| L-36 | Personal Selling | Sales Promotions | Lecture | R3 | 24/4/26 | |
| L-37 | Public Relations | Classifications | Lecture | R2 | 27/4/26 | |
| L-38 | Relationship Mgmt | Understanding of relationship | Lecture | R2 | 28/4/26 | |
| L-38 | Social Marketing | Types of social marketing | Lecture | R2 | 4/5/26 | |
| L-39 | Digital Marketing | Concept of Digital Marketing | Lecture | R2 | 8/5/26 | |
| L-40 | Role of AI | AI implications in Marketing | Lecture | R2 | 8/5/26 | |
| L-41 | Ethical concerns | Concern of ethical issues | Lecture | R2 | 8/5/26 | |

***References:***


1. Kotler & Keller Marketing Management, Pearson Education.
2. Panda T.K. Marketing Management text and cases Taxmann.
3. Sinha P.K. Marketing (Asian Edition) Oxford University.


Subject Faculty HOD Deputy Director Director

MBS College

## Lesson Plan for Decision Techniques in Business

| Programme: BBA | Semester: II | Paper Code: BBA 104 | Academic Year: 2025-26 |
|---|---|---|---|

**L-4, T-0** **Credits -4**

**Program Outcomes**

**After the program the students will be able to:**

PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values
PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Course Objective:** The course aims to develop research aptitude skills among the learners and to enable them to prepare project reports.

**Course Outcomes: (as specified in the syllabus)**

CO1: Understand the basic concepts of Statistics.
CO2: Acquire skills to apply correlation concepts in business and research problems.
CO3: Acquire skills to apply regression concepts in business and research problems.
CO4: Understand the linear programming in solving business problems and helps in taking decisions.
CO5: Understand the problems of general structure of transportation and assignment problems.

**PO-CO Mapping: Programme outcomes and course outcomes are specified in the syllabus and accordingly mapping should be done**

**BBA B&I 207:** Decision making Techniques in Business

**CO-PO MAPPING**

| | PO1 | PO2 | PO3 | PO4 | PO 5 | PO6 | PO 7 | PO 8 | PSO1 | PSO 2 | PSO3 | PSO4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 1 | 3 | 3 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 |
| CO2 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| CO3 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1 | 3 | 3 | 2 | 1 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO4 | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| CO5 | 3 | 1 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 |
| AVG | 3 | 1 | 3 | 3 | 2 | 1 | 1 | 1.4 | 3 | 2.2 | 1.6 | 1 |

**Association Rubrics:** **3-High** **2- Average** **1- Low**

The table depicts the relation between course outcome and program outcome.
The Letter "3" indicate high degree of relationship between CO and PO.
The Letter "2" indicate moderate/ Average degree of relationship between CO and PO.
The Letter "1" indicate low degree of relationship between CO and PO.

## Topic Layout/ Coverage Plan

| Lecture No. | Lecture Objective | UNIT | Topic/ Module Details with subtopics | Methodology | Reference / Text book | Date on which delivered | HOD Remarks |
|---|---|---|---|---|---|---|---|
| 1 | **What is data and their experiments?** | Unit-1 | Introduction of Statistics and experimental data analysis | Elaborated Practical example and problem solving | T1 | 20/01/26 | |
| 2 | | Unit-1 | Importance and collection of data. Analysis of data | | | 21/01/26 | |
| 3 | | Unit-1 | Formation of frequency distribution, Bar graph, Pi chart, Line graph | | | 27/01/26 | |
| 4 | | Unit-1 | Problem based on data analysis and report writing | | | 23/01/26 | |
| 5 | **How to decide the central tendency of data?** | Unit-1 | Measure of central tendencies , Mean, Median , Mode | Elaborated Practical example and problem solving | | 27/01/26 | |
| 6 | | Unit-1 | Quartile, decile and percentile | | | 27/01/26 | |
| 7 | **How to decide variation in data?** | Unit-1 | Introduction of Measure of variation, standard deviation | Elaborated Practical example and problem solving | | 29/01/26 | |
| 8 | | Unit-1 | Range, Quartile range, IQR | | | 30/01/26 | |
| 9 | | Unit-1 | Problems on quartile | | T2 | 02/02/26 | |
| 10 | | Unit-1 | Problems on decile and percentile | | | 02/02/26 | |
| 11 | **How to test statistically ?** | Unit-1 | Previous year question paper discussion based on the covered syllabus | Elaborated Practical example and problem solving | | 03/02/26 | |
| 12 | | Unit-1 | Introduction of statistical test | | | 03/02/26 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 13 | **How to approximate a given distribution ?** | Unit-2 | Introduction of correlation analysis. | Elaborated Practical example and problem solving | T3 | 13/02/26 | |
| 14 | | Unit-2 | Calculation of Karl Pearson correlation coefficient | | | 13/02/26 | |
| 15 | | Unit-2 | Problem based on correlation coefficients | | | 17/02/26 | |
| 16 | | Unit-2 | Spearman rank correlation coefficient | | | 17/02/26 | |
| 17 | | Unit-2 | Regression Analysis | | | 17/02/26 | |
| 18 | | Unit-2 | Calculation regression lines | | | 18/02/26 | |
| 19 | **How to find a relation between two distribution ?** | Unit-2 | Ordinarily square method of regression | Elaborated Practical example and problem solving | | 18/02/26 | |
| 20 | | Unit-2 | Pitfalls and limitations associated with regression and correlation analysis | | | 20/02/26 | |
| 18 | **What is optimality? How to get optimal ?** | Unit-3 | Introduction of Operation Research | Elaborated Practical example and problem solving | | 20/02/26 | |
| 19 | | Unit-3 | Linear Programming problem | | | 23/02/26 | |
| 20 | | Unit-3 | Solution of LPP by graphical method | | | 23/02/26 | |
| 21 | | Unit-3 | Simplex method | | T2 | 24/02/26 | |
| 22 | **How to convert practical problem to formal problem ?** | Unit-3 | Formulation of LPP | Elaborated Practical example and problem solving | | 24/02/26 | |
| 23 | | Unit-3 | Problems with mixed constraints: Duality | | | 25/02/26 | |
| 24 | | Unit-3 | Duality and dual problems | | | 25/02/26 | |
| 25 | | | | Elaborated Practical example and problem solving | T1,T2 | | |
| 26 | | Unit-4 | General structure of transportation problem | | | 26/02/26 | |
| 27 | **How to optimize transportation cost?** | Unit-4 | Methods for finding initial solution | Elaborated Practical example and problem solving | | 02/03/26 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 28 | **How to test optimality?** | Unit-4 | Testing for optimality of a transportation problem | | | 05/03/26 | |
| 29 | | Unit-4 | Assignment problem - hungarian Assignment method | | | 06/03/26 | |
| 30 | | Unit-4 | Balanced and unbalanced assignment problem | | | 09/03/26 | |
| 31 | | Unit-4 | Restriction on assignment problem | | | 10/03/26 | |
| 32 | | Unit-4 | Traveling Sales man model | | | 16/03/26 | |

**Suggested Readings (Latest Editions):**
**Reference /Text book:**
**T1. J.K. Thukral, Quantitative techniques and operational research**
**T2. S.P. Gupta and P.K Gupta, Quantitative techniques and operational research**
**T3. S.C. Gupta and V.K. Kapoor, Fundamental of statistics**

**Name & Signature of Faculty** **Deputy Director** **Director(MBS)**

**MBS COLLEGE**

**(Affiliated to GGSIP University)**

| Programme: BBA A | Semester: II | Paper Code: 106 | Academic Year: 2025-2026 |
|---|---|---|---|

## Subject: Human Resource Management — Faculty Name: Dr. Jyoti Sharma

**Course Outcomes (COs)**

CO1: Examine the concepts and relevance of HRM.

CO2: Explore the various dimensions of Human Resource Planning.

CO3: Analyse the needs, methods and designing of training and development programmes.

CO4: Demonstrate knowledge of performance appraisal and compensation systems.

**Programme Outcomes (POs)**

PO1: Apply management knowledge.

PO2: Communicate effectively.

PO3: Ethical responsibility.

PO4: Analyze business environment.

PO5: Critical thinking.

PO6: Team work.

PO7: Use of technology.

PO8: Lifelong learning.

**CO–PO Mapping Matrix**

| CO / PO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 2 |
| CO2 | 3 | 2 | 2 | 3 | 3 | 2 | 1 | 2 |
| CO3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 |
| CO4 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 |

Scale: 3 = High, 2 = Moderate, 1 = Low

**Unit I: Introduction to Human Resource Management**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|---|
| 1 | HRM basics | Meaning, nature & scope of HRM | Lecture | HRM TN CHHABRA Dhanpat Rai | 20/01/26 21/01/26 | |
| 2 | HR functions | Functions of HR manager | Lecture | " | 22/01/26 | |
| 3 | HR policies | HR policies | Lecture | VSP Rao. | 23/01/26 | |
| 4 | Emerging issues | Emerging challenges in HRM | Lecture | VSP. Rao | 27/01/26 | |
| 5 | Workforce | Workforce diversity | Lecture | VSP Rao | 29/01/26 | |
| 6 | Welfare | Health, safety & welfare | Lecture | VSP Rao | 30/01/26 | |
| 7 | Security | Social security & empowerment | Lecture | TN CHHABRA | 2/02/26 | |
| 8 | Change | Downsizing & VRS | Lecture | T.N CHHABRA | 3/02/26 | |
| 9 | Balance | Work-life balance | Discussion | T.N CHHABRA | 3/02/26. | |
| 10 | Ethics | Employee code of conduct | Case Study | Internet | 13/02/26 | |
| 11 | Digital HR | HRIS & e-HRM | Lecture | T.N CHHABRA | 10/02/26 12/02/26 | |

**Unit II: Acquisition of Human Resource**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|---|
| 12 | HRP | HR planning concept | Lecture | VSP Rao. | 17/02/2026 | |
| 13 | HRP tools | Quantitative & qualitative HRP | Lecture | VSP Rao | 18/02/2026 | |
| 14 | Job analysis | Job analysis process | Lecture | VSP Rao | 20/02/2026 | |
| 15 | Job design | JD & JS | Lecture | VSP Rao | 23/02/2026 | |
| 16 | Recruitment | Sources of recruitment | Lecture | T.N CHHABRA | 24/02/26 25/02/26 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 17 | Recruitment process | Recruitment process | Lecture | T.N CHABBRA | 26/02/26 | |
| 18 | Selection | Selection process | Lecture | TN CHABBRA | 2/03/26 | |
| 19 | Selection tools | Tests & interviews | Lecture | VSP Rao | 5/03/26 | |
| 20 | Induction | Induction & orientation | Lecture | VSP Rao | 6/03/26 | |
| 21 | Retention | Retention strategies | Discussion | VSP Rao. | 9/03/26 | |
| 22 | Revision | Unit II revision | Tutorial | TN CHABBRA VSP RAO | 10/03/26 | |

**Unit III: Training and Development**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|---|
| 23 | Training | Concept & importance | Lecture | TN CHABBRA | 11/03/26 | |
| 24 | Needs | Role specific & competency-based | Lecture | " | 12/03/26 13/03/26 | |
| 25 | On-the-job | Apprenticeship, job rotation | Lecture | " | 16/03/26 | |
| 26 | Off-the-job | Vestibule & case study | Lecture | " | 17/03/26 | |
| 27 | Behavioural | Role play & sensitivity | Activity | " | 20/03/26 | |
| 28 | Managerial | In-basket & games | Lecture | " | 24/03/26 | |
| 29 | Learning | Conferences & seminars | Lecture | " | 25/03/26 | |
| 30 | Coaching | Coaching & mentoring | Discussion | " | 30/03/26 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 31 | MDP | Management development programmes | Lecture | VS P Rao | 1/04/26<br>2/04/26 | |
| 32 | Operations | Training process & outsourcing | Lecture | T N CHABBRA | 9/04/26 | |
| 33 | Culture | Cultural shock | Case Study | T N CHABBRA | 14/04/26 | |

**Unit IV: Performance Appraisal & Compensation Management**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | | |
|---|---|---|---|---|---|---|
| 34 | PA basics | Nature & objectives | Lecture | VSP Rao | 15/04/26 | |
| 35 | PA process | Performance appraisal process | Lecture | VSP Rao | 16/04/26 | |
| 36 | PA methods | Methods of appraisal | Lecture | VSP Rao | 17/04/26<br>20/04/26<br>21/04/26 | |
| 37 | Counselling | Employee counselling | Role Play | " | 22/04/26 | |
| 38 | Career | Transfers & promotions | Lecture | " | 23/04/26 | |
| 39 | Compensation | Compensation concept | Lecture | " | 24/04/26 | |
| 40 | Pay structure | Base & supplementary pay | Lecture | " | 27/04/26 | |
| 41 | Incentives | Individual & group incentives | Lecture | " | 29/04/26<br>30/04/26 | |
| 42 | Benefits | Fringe benefits | Lecture | " | 4/05/26<br>5/05/26 | |
| 43 | Performance pay | ESOP & PLP | Lecture | " | 6/04/26 | |
| 44 | Audit | HR audit | Lecture | " | 7/05/26 | |
| 45 | Contemporary | Contemporary HR issues | Discussion | " | 8/04/26 | |

Suggested Readings:


1. Dessler, Gary, A Framework for Human Resource Management, Pearson Publishers.
2. David A. Decenzo, Stephen P. Robbins, Susan L. Verhulst, Human Resource Management, WileyIndia Private Limited.
3. Bohlendar and Snell, Principles of Human Resource Management, Cengage Learning.
4. Aswathappa,K, Human Resource Management, McGraw Hill Education Company.
5. Robert L. Mathis and Jackson, J., Human Resource Management, South-Western College Publishing.
6. Rao, V. S. P. Human Resource Management: Text and Cases, Excel Books, Delhi


8/04/24

**Subject Faculty** **Deputy Director** **Director**

**MBS COLLEGE**

Affiliated to GGSIPU and Approved by CoA & AICTE

Sector-9, PSP Area, Dwarka, New Delhi-110077

**Lesson Plan - Business Communication (BBA 108)**

| Programme | Semester | Paper Code | Academic Year |
|---|---|---|---|
| BBA | II | 108 | 2025-2026 |

No of hours allotted to complete the syllabi*: 30 (mentioned in the syllabus; L-2, T-0, Credits-02)

Date of commencement of classes: _____

## Course Objective (mentioned in the syllabus)

This course aims to enhance students' oral and written communication skills essential for business success, with a focus on clarity, conciseness, cross-cultural understanding, and effective use of communication tools.

**Course Outcomes (mentioned in the syllabus):** Upon completion of this course, students will be able to:

- CO1: Understand the fundamentals and principles of effective business communication.
- CO2: Demonstrate awareness of cross-cultural communication and ethical considerations in a globalized business environment.
- CO3: Develop proficiency in business letter writing for various organizational contexts.
- CO4: Apply effective communication techniques in departmental correspondence, report writing, and presentations.

## CO PO mapping (mentioned in the syllabus)

The syllabus extract did not include the CO-PO matrix, so the values below are a draft. Replace them with the figures from your official syllabus.

| Program level Outcomes | | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|---|
| CO1 | Understand the fundamentals and principles of effective business communication | 3 | 2 | 3 | 1 | 1 |
| CO2 | Demonstrate awareness of cross-cultural communication and ethical considerations in a globalized business environment | 2 | 3 | 3 | 3 | 3 |
| CO3 | Develop proficiency in business letter writing for various organizational contexts | 3 | 2 | 3 | 2 | 2 |
| CO4 | Apply effective communication techniques in | 3 | 3 | 3 | 3 | 2 |

| Program level Outcomes | | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|---|
| | departmental correspondence, report writing, and presentations | | | | | |
| **AVG** | | **2.75** | **2.5** | **3** | **2.25** | **2** |

## Lecture Plan

| Lecture & PPT No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture/ PPT/Assignment /Case Study | Reference/text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | | **UNIT I** | | | | |
| L-1 | To discuss syllabus and provide a brief outline of the topics of Unit I. | Overview of Unit I | Lecture & PPT | T1, T2 | 12/9 | — |
| L-2 | To explain the meaning and significance of communication in business. | Meaning and significance of communication | Lecture & PPT | T1, T2, T3 | 16/9 | — |
| L-3 | To explain the process of communication and its elements. | Process of Communication | Lecture & PPT | T1, T2, T3 | 16/9 | — |
| L-4 | To discuss the principles of effective business communication and the 7Cs. | Principles of Effective Business Communication, 7Cs | Lecture & PPT | T1, T2, T3 | 19/9 | — |
| L-5 | To develop command over spoken and written English for business use. | How to Improve Command over Spoken and Written English | Lecture & Activity | T1, T4 | 19/9 | — |

| Lecture & PPT No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture/ PPT/Assignment /Case Study | Reference/text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| L-6 | To understand the importance of listening and develop effective listening skills. | Effective Listening | Lecture & Activity | T1, T2 | 22/9 | — |
| L-7 | To evaluate students' understanding of Unit I through a unit test. | Unit test 1 | Test | | 23/9 | — |
| | | **UNIT II** | | | | |
| L-8 | To provide an overview of Unit II and introduce the idea of a global world. | Overview of Unit II; Idea of a global world | Lecture & PPT | T5, T1 | 26/9 | — |
| L-9 | To analyse the impact of globalization on organizational and multicultural communication. | Impact of globalization on organizational and multicultural communication | Lecture & PPT | T5, T2 | 26/9 | — |
| L-10 | To understand culture for global communication and explain the Etic and Emic approaches. | Understanding culture for global communication; Etic and Emic approaches to culture | Lecture & PPT | T5 | 29/9 | — |
| L-11 | To examine the cross cultural dimensions that shape business communication. | The Cross Cultural Dimensions of Business Communicatio | Lecture & Case Study | T5 | 29/9 | — |

| Lecture & PPT No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture/ PPT/Assignment /Case Study | Reference/text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | | n | | | | |
| L-12 | To explain the role of technology in modern business communication. | Technology and Communication | Lecture & PPT | T1, T2 | 3/10 | |
| L-13 | To sensitize students to ethical and legal issues in business communication. | Ethical & Legal Issues in Business Communication | Lecture & Case Study | T1, T3 | 3/10 | |
| L-14 | To discuss ways of overcoming cross cultural communication barriers. | Overcoming cross cultural communication barriers | Discussion & Role Play | T5, T6 | 6/10 | |
| | | **UNIT III** | | | | |
| L-15 | To provide an overview of Unit III and explain the need and functions of business letters. | Overview of Unit III; Business letters - Need and Functions | Lecture & PPT | T1, T3, T4 | 10/10 | |
| L-16 | To explain the parts and layout of a business letter. | Layout of Letter Writing | Lecture & PPT | T1, T3, T4 | 13/10 | |
| L-17 | To enable students to draft persuasive and request letters. | Types of Letter Writing: Persuasive Letters, Request Letters | Lecture & Assignment | T1, T3, T4 | 14/10 | |
| L-18 | To enable students to draft sales letters and | Types of Letter Writing: Sales | Lecture & | T1, T3, | 17/10 | |

| Lecture & PPT No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture/ PPT/Assignment /Case Study | Reference/text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | complaint letters. | Letters and Complaints | Assignment | T4 | 28/10 | — |
| L-19 | To explain employment related letters and draft interview letters. | Employment related letters - Interview Letters | Lecture & Assignment | T1, T3, T4 | 10/4 | ✓ |
| L-20 | To enable students to draft promotion and resignation letters. | Promotion Letters, Resignation Letters | Lecture & Assignment | T1, T3, T4 | 10/11 | ✓ |
| L-21 | To assess students' understanding of Unit III through a unit test. | Unit test 2 | Test | | 10/4 | ✓ |
| | | **UNIT IV** | | | | |
| L-22 | To provide an overview of Unit IV and explain the barriers of communication. | Overview of Unit IV; Barriers of Communication | Lecture & PPT | T1, T2 | 11/11 | ✓ |
| L-23 | To explain the meaning, need and types of departmental communication. | Departmental Communication - Meaning, Need and Types | Lecture & PPT | T1, T3 | 14/11 | ✓ |
| L-24 | To explain the format and use of news letters and circulars. | News Letters, Circulars | Lecture & Assignment | T1, T3 | 14/11 | — |
| L-25 | To explain the format and drafting of agenda and notice. | Agenda, Notice | Lecture & Assignm | T1, T3 | 17/11 | — |

| Lecture & PPT No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture/ PPT/Assignment /Case Study | Reference/text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | | | ent | | | |
| L-26 | To explain the format and drafting of office memorandums and office orders. | Office Memorandums, Office Orders | Lecture & Assignment | T1, T3 | 17/11 | — |
| L-27 | To explain the drafting of minutes of the meeting. | Minutes of the meeting | Lecture & Activity | T1, T3 | 18/11 | — |
| L-28 | To explain the process of project and report writing. | Project and Report writing | Lecture & Assignment | T1, T6 | 18/11 | — |
| L-29 | To explain how to make a presentation and the tools used for presentations. | How to Make a Presentation, Presentation Tools | Lecture & PPT | T1, T2, T6 | 18/a | — |
| L-30 | To discuss guidelines for effective presentation and conduct practice presentations. | Guidelines for Effective Presentation | Student Presentations | T1, T2, T6 | 21/a | — |
| L-31 | To assess students' understanding of Unit IV through a unit test. | Unit test 3 | Test | | 24/a | — |
| L-32 | Discussing about the tests conducted. | Discussing Tests | Discussion | | 26/a | — |
| L-33 | To clarify students' doubts and reinforce key concepts of business | Doubt solving | Discussion | | 26/a | — |

| Lecture & PPT No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture/ PPT/Assignment /Case Study | Reference/text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | communication. | | | | | |
| L-34 | To revise major topics of Units I and II for comprehensive understanding. | Revision | Lecture & PPT | | 26/4 | — |
| L-35 | To revise major topics of Units III and IV for examination preparation. | Revision | Lecture & PPT | | 27/4 | — |

## TEXT BOOKS (all latest editions)


1. Lesikar. Business Communication: Making Connections in a Digital World. McGraw Hill Education.
2. Bovee, C.L., Thill, J.V. & Chaturvedi, M. Business Communication Today, Pearson.
3. Krizan et al. Effective Business Communication, Cengage Learning.
4. Scot, O. Contemporary Business Communication, Biztantra, New Delhi.
5. Bovee et al. Intercultural Business Communication, Pearson Education.
6. Penrose et al. Business Communication for Managers, Cengage Learning.


## References


1. Lesikar. Business Communication: Making Connections in a Digital World. McGraw Hill Education.
2. Bovee, C.L., Thill, J.V. & Chaturvedi, M. Business Communication Today, Pearson.
3. Krizan et al. Effective Business Communication, Cengage Learning.
4. Bovee et al. Intercultural Business Communication, Pearson Education.


Subject Faculty

Deputy Director

Director

# MBS COLLEGE
## Lesson Plan for E-Commerce

| Programme: BBA | Semester: -II | Paper Code: BBA-112 | Academic Year: -2025-2026 |
|---|---|---|---|

**Faculty Name : Ms. Sarita Nehra**

**LEARNING OBJECTIVE:**

In this course, the learners will be provided expertise in:

1. To learn and understand the basic nature of e-commerce.
2. To study how the internet and web support e-commerce.
3. To explain how to use technologies to build e-commerce websites.
4. To make students aware of the business environment associated with e-commerce

## Course Outcomes

| Program level Outcomes | | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|---|
| CO1 | Examine strengths and weaknesses of digital profiles of business organizations | 1 | 2 | 1 | 2 | 2 |
| CO2 | Explore ways to enhance online visibility of business | 2 | 3 | 1 | 2 | 2 |
| CO3 | Analyze challenges of security, privacy and legal jurisdictions in e commerce | 1 | 3 | 1 | 1 | 1 |
| CO4 | Examine the barriers to successful online positioning of businesses | 2 | 2 | 3 | 3 | 3 |
| AVG | | 1.5 | 2.5 | 1.5 | 2 | 2 |

* In this table, the level of alignment between each CO and PO is represented by numbers (1, 2, 3), with 3 being high, 2 being medium, and 1 being low.

Section A

| Lecture No | Lecture Objective | Topic/ Module Details with subtopics | Mode of Delivery | Reference / Textbook | Lecture Outcome | Date on which delivered | PD Sign |
|---|---|---|---|---|---|---|---|
| L-1 | To tell the students with the basic concepts & Meaning of course. | Overview Lecture of Course | Lecture | TB1 | Students are aware with the basic concepts of course. | 22/1 | |
| L-2 | To inform the students about the basic concepts of e-commerce. | UNIT I: Definition and meaning & Concept of Electronic Commerce | Board, PPT | TB1 | Students are informed about the basic concepts of commerce | 23/1 | |
| L-3 | To inform the students about need of e-commerce | Applications of E-Commerce, advantages and disadvantages and reasons of E-commerce. | Board, PPT | TB1 | Students are informed about the online and offline commerce ways | 29/1 | |
| L-4 | To tell the students about the types of e-commerce | Types of Ecommerce | Board, PPT | TB1 | Students are told about the types of e-commerce | 29/1 | |
| L-5 | To inform the students about types of e-commerce models | Ecommerce Models | Board, PPT | TB1 | Students are informed about M-commerce and social commerce. | 12/2 | |
| L-6 | To tell the students about the challenges of e-commerce | Challenges and barriers in E commerce | Board, PPT | TB1 | Students learn about the challenges of e-commerce | 13/2 | |
| L-7 | To inform the students about transition phases and planning of e-commerce | Transition and readiness of Indian markets for e-commerce | Board, PPT | TB1, RB1 | Students are aware with the basic concepts e-commerce presence in Indian market | 17/2 | |
| L-8 | To inform about the Indian Markets transition need and stratgy | Transition to E Commerce in India , Indian Readiness for E commerce | Board, PPT | TB1, RB1 | Students are now familiar different challenges faced by Indian corporates during trasition from traditional commererce to e-commerce | 18/2 | |
| L-9 | Explore the challenges | E-Transition challenges for Indian corporate. | PPT | TB1, RB1 | Familier with E com challenges | 24/2 | |
| L-10 | **Unit 1** Revision | | | | | | |
| L-11 | **Unit 1** Quiz | | | | | | |
| | **UNIT II** | | | | | | |
| L-12 | To inform the students about the concept of digital payments | Digital Payment concept and requirement | Board, PPT | TB2, RB3 | Students are given idea about digital payment system | 26/2 | |
| L-13 | To ask the students how well they know about electronic | Concept of E-Money Smart Cards, Credit Cards, Debit Cards. | Board, PPT | TB2, RB1, RB2 | Students are aware with the basic things to know how and what | 2/3 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | payment concept and choice | | | | payment is suitable for them | | |
| L-14 | To ask the students how well they know about electronic payment concept and choice | Concept of E-Money Smart Cards, Credit Cards, Debit Cards. | Board, PPT | TB2, RB1, RB2 | Students are aware with the basic things to know how and what payment is suitable for them | 3/3 | |
| L-15 | Explore the types of E system | Types of E payment System | PPT | TB2, RB1, RB2 | the basic things to know how and what payment is suitable for them | 16/3 | |
| L-16 | Explore the types of E system | Types of E payment System | PPT | TB2, RB1, RB2 | the basic things to know how and what payment is suitable for them | 16/3 | |
| L-17 | To tell the students about infrastructure and risks involved in e-payment electronic payment | Electronic payment Risks and Infrastructure issues & Fund Transfer | Board, PPT | TB2, RB1, RB3 | Students are familiarized with the basic concepts of Electronic payments and various risks involved in it | 17/3 | |
| L-18 | To tell the students with the basic concepts of Digital Cash and Virtual Currencies | Digital Cash and Virtual Currencies. Online Banking, Payment Gateway. | Board, PPT | TB2, RB1, RB3 | Students are familiar with the basic concepts of Digital Cash and Virtual Currencies | 20/3 | |
| L-19 | Explore the individual characteristics is determined by actual need of transection parties | Requirement Metrics of a payment system | Board, PPT | TB2, RB1, RB3 | the basic concepts of Digital Cash and Virtual | 20/3 | |
| L-20 | **UNIT II Revision** | | | | | | |
| L-21 | **UNIT-II Quiz** | | | | | | |
| | **UNIT III** | | | | | | |
| L-22 | To acquaint the students with the review of Security | Overview of Security issue in e commerce | Lecture | TB2, RB1, RB3 | Students are acquainted with the basic review of Security Threats and Issues | 24/3 | |
| L-23 | To acquaint the students with the review of Security Threats and Issues | Security Threats and Issues in e Commerce Need & Concept | Lecture | TB2, RB1, RB3 | Students are acquainted with the basic review of Security Threats and Issues | 30/3 | |
| L-24 | To acquaint the students with the basic Cyber crimes, Credit card frauds/theft, Identity fraud, spoofing . | E Commerce Security Environment | Board, PPT | TB1, RB4 | Students are acquainted with the basic of Cyber crimes, Credit card frauds/theft, Identity fraud, spoofing .. | 30/3 | |
| L-25 | To acquaint the students with the basic Cyber crimes, Credit | Components of Security Environment: | Board, PPT | TB2, RB1, RB3 | Students are acquainted with the basic of Cyber crimes, Credit | 30/3 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | card frauds/theft, Identity fraud, spoofing , | | | | card frauds/theft, Identity fraud, spoofing .. | 1/4 | |
| L-26 | To demonstrate the students about Encryption and decryption | Security threats in E Commerce Environment | Board, PPT | TB1, RB4 | Students are told about Encryption and decryption | 2/4 | |
| L-27 | To demonstrate the students about Encryption and decryption | Various types of attacks | Board, PPT | TB2, RB1, RB3 | told about Encryption and decryption | 9/4 | |
| L-28 | To teach the students about Encryption and decryption | About Encryption & Decryption | Board, PPT | TB1, RB4 | Students are told about Encryption and decryption | 14/4 | |
| L-29 | To teach the students about Encryption and decryption | Types of Encryption: | Board, PPT | TB2, RB1, RB3 | Detailed in Encryption | 15/4 | |
| L-30 | **UNIT III Revision** | | | | | | |
| L-31 | **UNIT-III Quiz** | | | | | | |
| **UNIT IV** | | | | | | | |
| L-32 | To teach the students about how the of E-commerce is applied in various industries | Overview of E Commerce Application | Board, PPT | TB1, RB4 | Students will aware of different areas of E Commerce | 16/4 | |
| L-33 | Explain the shaping the industry | Emerging Trends in E Commerce | Board, PPT | TB2, RB1, RB3 | Get knowledge about various trends in e commerce | 17/4 | |
| L-34 | Explaining about buying and selling goods and Services through smartphones | Mobile Commerce | Board, PPT | TB2, RB1, RB3 | Learn about M commerce Transection | 20/4 | |
| L-35 | Exploring economics factor influence consumer purchasing power | Economic, Technological and Social Considerations, | Board, PPT | TB2, RB1, RB3 | Learn about Technological and Social Considerations | 22/4 | |
| L-36 | **UNIT IV REVISION** | | | | | | |
| L-37 | **UNIT IV QUIZ** | | | | | | |

**Suggested Readings: (All latest editions)**


1. Elias M. Awad, Electronic Commerce - From Vision to Fulfillment, PHI Learning.
2. Joseph, P.T. and Si., E-Commerce An Indian Perspective, PHI Learning.
3. Efraim Turban, David King, Dennis Viehland, Jae Lee: Electronic Commerce A Managerial Perspective, 4th Edition, Pearson Education.
4. Bharat Bhaskar, Electronic Commerce- Framework, Technologies and Applications, Tata McGraw Hill.
5. Dave Chaffey, E-Business and E-Commerce Management- Strategy, Implementation and Practice, Pearson Education.
6. Schneider Gary, Electronic Commerce, Cengage Learning.


**URL of Digital Resources (Unit-wise)**

- **https://www.youtube.com/watch?v=-7PljEN-NIo&list=PLV8vIYTIdSnbh5dOzzOGYABSZLdguEbUG (Unit I)**
- **https://www.youtube.com/watch?v=6mbwJ2xhgzM&list=PLu0W_9lII9agiCUZYRsvtGTXdxkzPyItg (Unit II)**
- **https://www.youtube.com/watch?v=Q5HdOaiNYps&list=PLb8zN-8LXfQAkHpezdSvGXFyxiRD5fRPE (Unit III)**
- **https://www.youtube.com/watch?v=IN3hn_8LRuU&list=PLSUCJEQgV0QPQVg7xYPPDRk2c_Feqsmme (Ur IV)**

**Link for Glossary and MCQ ( URL of your Drive)**
https://classroom.google.com/c/ODI1NjM5MTgxNDM3?cjc=twz3eusj

Ms. Sarita Mehra

**Name & Signature of Faculty** **Deputy Director** **Director**

Only Business Commerce
II st Sem

## Lesson Plan – Indian Knowledge Systems (IKS)

| Programme: BBA | Semester: II | Paper Code: BBA 118 | Academic Year: 2025-2026 |
|---|---|---|---|

### Course Objectives

To create awareness among students about the rich cultural heritage of India by understanding the scientific, philosophical, spiritual, and practical dimensions of Indian Knowledge Systems. The course aims to inculcate ethical values, leadership qualities, and holistic thinking.

### Course Outcomes (COs)

1. CO1: Explain the philosophical and cultural foundations of Indian Knowledge Systems.
2. CO2: Interpret ancient Indian economic and commercial concepts such as Arthashastra and TKDL.
3. CO3: Understand Indian spiritual thought and its relevance to ethics, leadership, and workplace conduct.
4. CO4: Identify key contributions of Indian civilization in science, engineering, and architecture.

### Lesson Plan – Tabular Format

| Lec No. | Lecture Objective | Topic / Module Details | Teaching Method | Reference | Date Delivered | Remarks |
|---|---|---|---|---|---|---|
| 1 | Introduction to IKS | Overview of Indian Knowledge Systems | Lecture | Text Book | 20/01/26 | |
| 2 | Indian Philosophy | Vedic Tradition & Upanishads | Lecture | Text Book | 22/01/26 | |
| 3 | Darshanas | Classical Indian Darshanas | Lecture | Text Book | 23/01/26 | |
| 4 | Indian Culture | Evolution of Indian Culture | Lecture | Text Book | 27/01/26 | |
| 5 | Cultural Components | Distinctive Features of Indian Culture | Lecture | Text Book | 29/01/26 | |
| 6 | Art Forms | Indian Music & Dance | Lecture + PPT | Text Book | 30/01/26 | |
| 7 | Economic Thought | Introduction to Arthashastra | Lecture | Text Book | 02/02/26 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 8 | Ancient Commerce | Economic Administration in Arthashastra | Lecture | Text Book | 03/02/26 | |
| 9 | Traditional Knowledge | Traditional Knowledge Digital Library (TKDL) | Lecture | Online | 03/02/26 | |
| 10 | GI Concept | Geographical Indications of Goods | Lecture | Text Book | 13/02/26 | |
| 11 | Spirituality | Spirituality vs Religion | Lecture | Text Book | 17/02/26 | |
| 12 | Vedanta | Concept of Maya – Advaita Vedanta | Lecture | Text Book | 18/02/26 | |
| 13 | Ethics | Dharma: Varna, Ashram & Svadharma | Lecture | Text Book | 20/02/26 | |
| 14 | Karma Theory | Concept of Karma & Corporate Karma | Lecture | Text Book | 23/02/26 | |
| 15 | Global Outlook | Vasudhaiva Kutumbakam | Lecture | Text Book | 24/02/26 | |
| 16 | Science in IKS | Indian Mathematics & Astronomy | Lecture | Text Book | 24/02/26 | |
| 17 | Engineering | Ancient Engineering & Technology | Lecture | Text Book | 25/02/26 | |
| 18 | Metallurgy | Metals & Metalworking | Lecture | Text Book | 25/02/26 | |
| 19 | Town Planning | Ancient Town Planning Concepts | Lecture | Text Book | 26/02/26 | |
| 20 | Architecture | Vastu Shastra & Shilpa Shastra | Lecture | Text Book | 2/03/26 | |
| 21 | Applications | Relevance of IKS in Modern Management | Lecture | Journal | 02/03/26 | |
| 22 | Case Study | IKS-based Leadership Practices | Discussion | Case Study | 03/03/26 | |
| 23 | Ethical Values | Ethics & Workplace Conduct | Lecture | Text Book | 05/03/26 | |

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|---|---|---|---|---|---|---|
| 24 | Sustainability | Nature, Life & Sustainability | Lecture | Article | 07/03/26 | |
| 25 | Revision I | Unit I & II Revision | Discussion | All | 09/03/26 | |
| 26 | Revision II | Unit III Revision | Discussion | All | 10/03/26 | |
| 27 | Revision III | Unit IV Revision | Discussion | All | 11/03/26 | |
| 28 | Assessment | Internal Assessment / Quiz | Test | Syllabus | 17/03/26 | |
| 29 | Presentation | Student Presentation | Presentation | NA | 24/03/26 | |
| 30 | Final Revision | Complete Syllabus Revision | Discussion | All | 25/03/26 | |

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**Unit 1 – Introduction & Scope of IKS**

🎥 **Introduction to IKS – Basic Concepts**
👉 https://www.youtube.com/watch?v=5f0phlOdYvU (YouTube)

🎥 **Importance of Ancient Indian Knowledge (Unit 1 Topic)**
👉 https://www.youtube.com/watch?v=rfGIexaPDBg (YouTube)

🎥 **General Intro & Modern Relevance of IKS**
👉 https://www.youtube.com/watch?v=Ed9exkv_jMU (YouTube)

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**Unit 2 – Philosophical & Cultural Foundations**

🎥 **IKS – Bridging Ancient & Modern Perspectives (Philosophical Overview)**
👉 https://www.youtube.com/watch?v=17FY66U7YKQ (YouTube)

🎥 **Special Class – Indian Knowledge System (Philosophy & Culture)**
👉 https://www.youtube.com/watch?v=eEu_Re4Mg6Y (YouTube)

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**Unit 3 – Tradition, Evolution & Key Ideas**

🎥 **Tradition of IKS – Module 1 Lecture**
👉 https://www.youtube.com/watch?v=d_RUNc76v9o (YouTube)

🎥 **Universality of IKS**
👉 https://www.youtube.com/watch?v=ytrUM0Ui6lo (YouTube)

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**Unit 4 – Governance, Arthashastra & Applied Concepts**

🎥 **Arthashastra – Art of Governance (Module 2)**
👉 https://www.youtube.com/watch?v=quts5hI1K3E (YouTube)

🎥 **Kautilya's Arthashastra – Statecraft and Modern Applications**
👉 https://www.youtube.com/watch?v=1hRNji1gQ6s (YouTube)

🎥 **Vastu Shastra: Science of Architecture**
👉 https://www.youtube.com/watch?v=uWKAlW3xhls (YouTube)

🎥 **Vastu & Indian Architectural Knowledge (Advanced)**
👉 https://www.youtube.com/watch?v=928zusw6kHk (YouTube)

🎥 **IKS – Science & Technology Overview**
👉 https://www.youtube.com/watch?v=4NT9reg4G3s (YouTube)

**Name & Signature of Faculty** **Deputy Director** **Director**

**MBS COLLEGE**

**(Affiliated to GGSIP University)**

**SCHOOL OF MANAGEMENT**

**Lesson Plan for Business Environment & Law**

| Programme: BBA | Semester: III | Paper Code: 201 | Academic Year: 2025-2026 |
|---|---|---|---|

## Course Outcomes (COs)

CO1: Understand the concept, nature and components of business environment and analyze their impact on business decisions.

CO2: Examine the influence of political and legal environment on business operations and strategies.

CO3: Interpret and apply core business laws such as Contract Law, Company Law, Sale of Goods Act and Labour Laws.

CO4: Analyze emerging business laws including consumer protection, cyber laws and environmental regulations.

## Programme Outcomes (POs)

PO1: Apply knowledge of management theories and practices to solve business problems.

PO2: Communicate effectively in professional and managerial contexts.

PO3: Demonstrate ethical awareness and social responsibility in business decisions.

PO4: Analyze economic, political, legal and social environment affecting business.

PO5: Apply critical thinking and problem-solving skills in business situations.

PO6: Work effectively as an individual and as a member of a team.

PO7: Understand the impact of technology and innovation on business.

PO8: Apply research skills for business analysis and decision making.

## CO–PO Mapping Matrix

| CO / PO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 2 |
| CO2 | 3 | 2 | 3 | 3 | 3 | 1 | 2 | 3 |
| CO3 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 |
| CO4 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 |

Scale: 3 = High, 2 = Moderate, 1 = Low

**Unit I: Business Environment**

| Lecture No. | Lecture Objective | Topic / Module Details with Subtopics | Methodology | Reference / Text Book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 1 | Understand business environment | Meaning, nature and scope | Lecture + PPT | Cherunilam | 01/09/25 | — |
| 2 | Explain importance | Importance of business environment | Lecture | Cherunilam | 03/09/25 | — |
| 3 | Identify components | Internal and external environment | Lecture | Cherunilam | 04/09/25 | — |
| 4 | Analyze economic environment | Economic environment – features | Lecture | Paul Justin | 08/09/25 | — |
| 5 | Compare economic systems | Capitalism, Socialism, Mixed Economy | Lecture | Dutt & Sundaram | 10/09/25 | — |
| 6 | Role of government | Government role in business | Lecture | Cherunilam | 12/09/25 | — |
| 7 | Explain reforms | LPG reforms in India | Lecture + PPT | Cherunilam | 15/09/25 | — |
| 8 | Socio-cultural environment | Impact of culture on business | Lecture | Cherunilam | 16/09/25 | — |
| 9 | CSR | Corporate Social Responsibility | Case Study | Cherunilam | 17/09/25 | case |
| 10 | Review unit | Unit I revision | Quiz | All | 19/09/25 | — |

**Unit II: Political and Legal Environment**

| Lecture No. | Lecture Objective | Topic / Module Details with Subtopics | Methodology | Reference / Text Book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 11 | Political environment | Meaning and components | Lecture | Cherunilam | 22/09/25 | — |
| 12 | Political systems | Political systems and | Lecture | Paul Justin | 23/09/25 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | business impact | | | | |
| 13 | Government policies | Policies and business strategies | Case Study | Cherunilam | 26/09/25 | Case |
| 14 | Legal environment | Meaning and importance | Lecture | N.D. Kapoor | 29/09/25 | — |
| 15 | Business laws | Introduction to business laws | Lecture | N.D. Kapoor | 30/09/25 | — |
| 16 | Legal compliance | Importance of legal compliance | Lecture | N.D. Kapoor | 1/10/25 | — |
| 17 | Impact of laws | Impact on business operations | Case Study | N.D. Kapoor | 2/10/25 | Case |
| 18 | Recent developments | Recent political & legal changes | Discussion | Govt Sources | 6/10/25 | — — |
| 19 | Strategic integration | Political–legal environment & strategy | Lecture | Cherunilam | 8/10/25 | — |
| 20 | Review unit | Unit II revision | Quiz | All | 10/10/25 | |

**Unit III: Core Business Laws**

| Lecture No. | Lecture Objective | Topic / Module Details with Subtopics | Methodology | Reference / Text Book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 21 | Contract law | Indian Contract Act – overview | Lecture | N.D. Kapoor | 13/10/25 | — |
| 22 | Valid contract | Essentials of valid contract | Lecture | N.D. Kapoor | 14/10/25 | — |
| 23 | Types of contracts | Classification of contracts | Lecture | N.D. Kapoor | 15/10/25 | — |
| 24 | Breach & remedies | Breach of contract and remedies | Case Study | N.D. Kapoor | 17/10/25 | Case |
| 25 | Company law | Companies Act – types of companies | Lecture | P.C. Tulsian | 28/10/25 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| 26 | Company processes | Formation, management, winding up | Lecture | P.C. Tulsian | 29/10/25 | — |
| 27 | Sale of Goods Act | Essentials of contract of sale | Lecture | N.D. Kapoor | 31/10/25 | — |
| 28 | Ownership transfer | Conditions, warranties, ownership | Case Study | N.D. Kapoor | 10/11/25 | Case 1 |
| 29 | Labour laws | IDA, Factories Act, Minimum Wages Act | Lecture | N.D. Kapoor | 11/11/25 | — |
| 30 | Review unit | Unit III revision | Quiz | All | 12/11/25 | — |

**Unit IV: Emerging Business Laws and Consumer Protection**

| Lecture No. | Lecture Objective | Topic / Module Details with Subtopics | Methodology | Reference / Text Book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 31 | Consumer law | Consumer Protection Act, 2019 | Lecture | N.D. Kapoor | 14/11/25 | — |
| 32 | Consumer rights | Rights and responsibilities | Lecture | N.D. Kapoor | 15/11/25 | — |
| 33 | Redressal system | Grievance redressal mechanisms | Lecture | N.D. Kapoor | 17/11/25 | — |
| 34 | IT law | Information Technology Act, 2000 | Lecture | Paul Justin | 18/11/25 | — |
| 35 | Cyber laws | Cyber crimes and penalties | Case Study | IT Act | 19/11/25 | Case |
| 36 | Environmental law | Environment Protection Act, 1986 | Lecture | Govt Publications | 21/11/25 | ✓ |
| 37 | Corporate responsibility | Environmental responsibility of firms | Discussion | CSR Guidelines | 24/11/25 | — |
| 38 | Recent laws | Recent acts and amendments | Discussion | Current Affairs | ✓ | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| 39 | Case analysis | Consumer & environmental cases | Case Study | N.D. Kapoor | — | case |
| 40 | Course conclusion | Overall revision and assessment | Test | All | — | — |

**Suggested References / Text Books**


1. Cherunilam, F. – *Business Environment*, Himalaya Publishing House
2. Kapoor, N.D. – *Business Law*, Sultan Chand & Sons
3. Paul, Justin – *Business Environment*, McGraw Hill
4. Tulsian, P.C. – *Business Law*, McGraw Hill
5. Dutt & Sundaram – *Indian Economy*, S. Chand


**Unit-wise YouTube Learning Resources**

Unit I:
https://www.youtube.com/watch?v=8n8YQ2R9pEo
https://www.youtube.com/watch?v=Z0f6yq4Z1ZQ
Unit II:
https://www.youtube.com/watch?v=HcJb5kK8Y9Q
https://www.youtube.com/watch?v=1mEJ9GkYQyY
Unit III:
https://www.youtube.com/watch?v=Q2f8m4LkKpA
https://www.youtube.com/watch?v=K5QXyZ8F9mI
Unit IV:
https://www.youtube.com/watch?v=3Gm6qP9rV5Y
https://www.youtube.com/watch?v=V9YFZk8Kk0A

**FACULTY SIGNATURE** **DEPUTY DIRECTOR** **DIRECTOR**

# MBS COLLEGE

**Affiliated to GGSIPU and Approved by CoA & AICTE**
**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

**Lesson Plan for Production Operations Management**

| Programme: BBA | Semester: III | Paper Code: 203 | Academic Year: 2025-2026 |
|---|---|---|---|

No of hours allotted to complete the syllabi*: 60 (mentioned in the syllabus)

**Course Objective: (mentioned in the syllabus)**

- **Understanding the various roles & responsibilities of a manager related to sales management**
- **Explore the key areas related to the organization, selection, and development of effective sales force**
- **Examine and analyse the role and functions of distribution channels and intermediaries**
- **Integrate sales strategies with distribution logistics, and addressing ethical and legal issues**

**CO PO mapping: (mentioned in the syllabus)**

| Program level Outcomes | | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|---|
| CO1 | Understanding the various roles & responsibilities of a manager related to sales management | 3 | 2 | 3 | 1 | 1 |
| CO2 | Explore the key areas related to the organization, selection, and development of effective sales force | 3 | 3 | 3 | 3 | 3 |
| CO3 | Examine and analyze the role and functions of distribution channels and intermediaries | 2 | 3 | 3 | 3 | 3 |
| CO4 | Integrate sales strategies with distribution logistics, and addressing ethical and legal issues | 2 | 3 | 3 | 3 | 3 |
| AVG | | 2.5 | 2.75 | 3 | 2.5 | 2.5 |

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| Lecture & PPT - No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture /PPT/Assignment/Case Study | Reference /text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | | **UNIT I** | | | | |
| L-1 | To discuss syllabus and provide a brief outline of the topics of unit I. | Overview of unit I | Lecture & PPT | ? | 1/9/25 | — |
| L-2 | To discuss the definitions and concepts of sales management | Definition, evolution and scope of sales management | Lecture & PPT | ? | 2/9/25 | — |
| L-3 | To understand the importance of sales management | Importance of sales Management | Lecture & PPT | | 3/9/25 | — |
| L-4 | To understand types of sales managers | Types of sales managers | Lecture & PPT | | 4/9/25 | — |
| L-5 | To explain the concept of personal selling and discuss major theories related to personal selling. | Personal Selling-Theories | Lecture & PPT | | 4/9/25 | — |
| L-6 | To analyse the psychological aspects of selling and their impact on buyer behavior. | Psychology in Selling | Lecture & PPT | | 8/9/25 | — |
| L-7 | To explain production planning & control | Buying Situations | Lecture & PPT | | 10/9/25 | — |
| L-8 | To explain the stages of the sales process and their practical relevance in selling activities. | Sales Process | Lecture & PPT | | 11/9/25 | — |
| L-9 | To introduce the concept of sales forecasting and explain its importance in sales planning. | Sales Forecasting | Lecture & PPT | | 15/9/25 | — |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-10 | To explain the concept of sales territory design and factors influencing territory allocation. | Sales Territory Design | Lecture & PPT | | 15/9/25 | — |
| L-11 | To evaluate students' understanding of Unit I through a unit test. | Unit test 1 | Lecture & PPT | | 16/9/25 | — |
| | | **UNIT II** | | | | |
| L-12 | To provide an overview of Unit II and introduce key concepts of sales force management. | Overview of Unit II | Lecture & PPT | | 17/9/25 | — |
| L-13 | To explain the concept, objectives, and importance of sales force management. | Sales Force Management | Lecture & PPT | | 18/9/25 | — |
| L-14 | To discuss various types of sales organization structures and their suitability in different situations. | Sales Organization structure | Lecture & PPT | | 22/9/25 | — |
| L-15 | To explain methods for determining sales force size and factors affecting sales force requirements. | Sales Force Size | Lecture & PPT | | 23/9/25 | — |
| L-16 | To understand the recruitment and selection process of an effective sales force. | Recruitment, Selection of Sales force | Lecture & PPT | | 24/9/25 | — |
| L-17 | To explain the importance of training, motivation, and compensation of sales personnel. | Training, motivation and Compensation of Sales Force | Lecture & PPT | | 24/9/25 | — |
| L-18 | To discuss sales quotas and sales contests as tools for motivating the sales force. | Sales Quotas and Contests | Lecture & PPT | | 25/9/25 | — |

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|---|---|---|---|---|---|---|
| L-19 | To evaluate different methods of assessing sales force performance. | Evaluation of Sales performance | Lecture & PPT | | 29/9/25 | — |
| | | **UNIT III** | | | | |
| L-20 | To summarize key concepts of Unit III and assess learning outcomes. | Overview of unit III | Lecture & PPT | | 30/9/25 | — |
| L-21 | To introduce the concept of distribution channels and explain their role in the marketing system. | Distribution Channels and Institutions | Lecture & PPT | | 1/10/25 | — |
| L-22 | To explain the functions performed by intermediaries in distribution channels. | Functions of Intermediaries | Lecture & PPT | | 6/10/25 | — |
| L-23 | To analyze the types and role of channel intermediaries in India for consumer and industrial products. | Types and Role of Channel Intermediaries in India for Consumer and Industrial products | Lecture & PPT | | 8/10/25 | — |
| L-24 | To explain the concept, types, and importance of retailing in the distribution system. | Types of channel intermediary | Lecture & PPT | | 9/10/25 | — |
| L-25 | To discuss retail strategies, performance measures, and the retail scenario in India. | Role of channel intermediary | Lecture & PPT | | 13/10/25 | — |
| L-26 | To explain the features and classification of wholesaling. | Wholesaling - Features | Lecture & PPT | | 14/10/25 | — |
| L-27 | To analyse key wholesaling decisions related to location, assortment, and services. | Wholesaling - Classification, Decision | Lecture & PPT | | 15/10/25 | — |
| L-28 | To discuss trends and future prospects of wholesaling in India. | Wholesaling - Trends and Future Scenario | Lecture & PPT | | 16/10/25 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-29 | To assess students' understanding of Unit III through a unit test. | Unit test 2 | Lecture & PPT | | 28/10/25 | — |
| | | **UNIT IV** | | | | |
| L-30 | To provide an overview of Unit IV and introduce logistics and supply chain concepts. | Overview of Unit IV | Lecture & PPT | | 29/10/25 | — |
| L-31 | To explain the concept of distribution channel design and factors affecting channel selection. | Distribution Channel Design | Lecture & PPT | | 30/10/25 | — |
| L-32 | To analyze channel strategy and design decisions in distribution management. | Management and Logistics: Channel Strategy and Design | Lecture & PPT | | 10/11/25 | — |
| L-33 | To explain the process of selection, motivation, and evaluation of channel intermediaries. | Selection, Motivation and Evaluation of Intermediaries | Lecture & PPT | | 11/11/25 | — |
| L-34 | To discuss channel dynamics, relationships, and methods of managing channel conflict. | Managing Channel Dynamics, Relationships and Channel Conflict | Lecture & PPT | | 12/11/25 | — |
| L-35 | To explain the objectives and decision areas of the physical distribution system. | Physical Distribution System -Objectives and Decision Areas | Lecture & PPT | | 13/11/25 | — |
| L-36 | To introduce the concept of logistics and supply chain management and their strategic importance. | Introduction to Logistics and Supply Chain Management | Lecture & PPT | | 17/11/25 | — |
| L-37 | To explain green supply chain management and the role of e-commerce in modern supply chains. | Green Supply Chain & E-commerce | Lecture & PPT | | 18/11/25 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-38 | To analyse the integration of sales and distribution strategies for organizational effectiveness. | Integration of Sales and Distribution Strategy | Discussion | | 19/11/25 | — |
| L-39 | To sensitize students to ethical and legal issues in sales and distribution management in the Indian context. | Logistics for sustainability and digital trends Ethical and Legal Issues in Sales and Distribution Management in Indian context. | Lecture & PPT | | 20/11/25 | — |
| L-40 | To assess students' understanding of Unit IV through a unit test. | Unit Test 3 | Lecture & PPT | | 20/11/25 | — |
| L-41 | Discussing about the tests conducted. | Discussing Tests. | Lecture & PPT | | 21/11/25 | — |
| L-42 | To clarify students' doubts and reinforce key concepts of sales and supply chain management. | Doubt solving | Lecture & PPT | | 21/11/25 | — |
| L-43 | To revise major topics of Units I and II for comprehensive understanding. | Revision | Lecture & PPT | | 24/11/25 | — |
| L-44 | To revise major topics of Units III and IV for examination preparation. | Revision | Lecture & PPT | | 24/11/25 | — |
| L-45 | To consolidate the entire syllabus through discussion and problem-solving. | Revision | Lecture & PPT | | 25/11/25 | — |

**TEXT BOOKS:**


1. Production and Operations Management - Aswathappa K., Shridhara Bhat K. (Himalaya Publishing House)
2. Rosenbloom, Bert, Marketing Channels: A Management View, Cengage Learning.
3. Jobber, David and Lancaster, Geoffery, Selling and Sales Management, Pearson Education
4. Tanner Jr., J.F., Honeycutt Jr., E.D. and Erfimeyer, R.C., Sales Management:, Pearson Education
5. Panda, T.K. and Sahadev, S, Sales and Distribution Management, Oxford University Press.
6. Havaldar, K K. and Cavale, VM., Sales and Distribution Management: Text and Cases, Tata McGraw Hill.


***References:***


1. Havaldar, K. K. & Cavale, V. M. *Sales and Distribution Management: Text and Cases* Tata McGraw Hill.
2. Rosenbloom, Bert *Marketing Channels: A Management View* Cengage Learning.
3. Panda, T. K. & Sahadev, S. *Sales and Distribution Management* Oxford University Press.
4. Tanner Jr., J. F., Honeycutt Jr., E. D. & Erffmeyer, R. C. *Sales Management* Pearson Education.


**Subject Enrichment Activity**: (1 subject enrichment activity need to be mentioned along with its Execution Plan)

Subject Faculty HOD Deputy Director Director

# MBS COLLEGE

## School of Business Administration

### Lesson Plan for Business Research Methodology

**Programme BBA Semester: III Paper Code: 17205 Academic Year: 2025-26**

**Programme Outcome (as specified in the syllabus)**

PO 1. Apply knowledge of various functional areas of business
PO 2. Develop communication and professional presentation skills
PO 3. Demonstrate critical thinking and Analytical skills for business decision making
PO 4. Illustrate leadership abilities to make effective and productive teams
PO 5. Explore the implications and understanding the process of starting a new venture
PO 6. Imbibe responsible citizenship towards sustainable society and ecological environment
PO 7. Appreciate inclusivity towards diverse culture and imbibe universal values
PO 8. Foster Creative thinking to find innovative solutions for diverse business situations

**Course Objective: The course aims to develop research aptitude skills among the learners and to enable them to prepare project report.**

**Course Outcomes:**

CO1: Define and explain the basic concepts and scope of business research
CO2: Apply research methodologies to real-world business problems and analyze their effectiveness.
CO3: Design a comprehensive research process to address specific business challenges and evaluate its potential outcomes.
CO4: Assess measurement techniques, sampling methods, and hypothesis testing, and prepare a well-structured research report based on findings.

**PO-CO Mapping: Programme outcomes and course outcomes are specified in the syllabus and accordingly mapping should be done**

| Program level Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO 7 | PO 8 | PSO1 | PSO 2 | PSO3 | PSO 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO2 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 1 |
| CO4 | 3 | 2 | 3 | 1 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO5 | 3 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO6 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 3 | 3 | 3 | 1 |
| CO7 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 1 |
| AVG | 3 | 2.43 | 3 | 2.57 | 3 | 2.14 | 1 | 1.71 | 3 | 3 | 3 | 1 |

**Association Rubrics:** **3-High** **2- Average** **1- Low**

| Lecture No | Lecture Delivery Date | Topic | Course Outcome | Bloom's Level | Learning Objective | Teaching–Learning Techniques/Activity | |
|---|---|---|---|---|---|---|---|
| **UNIT I** | | | | | | | |
| I | 11/8/25 | Meaning of Research, Scope & Purpose of Business Research | CO1 | Remembering | Define business research, its scope and purpose | Lecture with PPT and discussion | |
| | 11/8/25 | | | Understanding | Explain how business research contributes to decision-making | Interactive Q&A session | |
| | 12/8/25 | | | Applying | Identify areas in business where research is applicable | Think-pair-share activity | |
| | 11 | | | Analyzing | Distinguish business research from other types of inquiry | Group discussion with examples | |
| I | 13/8/25 | Types of Research, Criteria of Good Research | CO1 | Remembering | List and describe various types of research | Comparison table and case discussion | |
| | 14/8/25 | | | Understanding | Explain the difference between exploratory, descriptive, and causal research | Case-based learning | |
| | 14/8/25 | | | Applying | Match research scenarios with | Scenario analysis activity | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | suitable research types | | |
| | 19/8/25 | | | Analyzing | Evaluate characteristics of good research | Peer evaluation of sample research write-ups | |
| I | 20/8/25 | Steps in the Research Process | CO1 | Remembering | Recall the steps involved in conducting research | Flowchart making and worksheet | |
| | 20/8/25 | | | Understanding | Describe each step with examples | Guided walkthrough using a case | |
| | 21/8/25 | | | Applying | Apply steps to frame a research question | Individual worksheet | |
| | 21/8/25 | | | Analyzing | Break down a research problem into stepwise structure | Research simulation activity | |
| I | 25/8/25 | Unit of Analysis; Concepts and Variables | CO1 | Remembering | Define key terms like unit of analysis, concept, variable | Group activity with caselets and classification | |
| | 25/8/25 | | | Understanding | Differentiate between independent, dependent, and control variables | Variable classification chart | |
| | 26/8/25 | | | Applying | Identify variables in a given research problem | Group task on dissecting real-world studies | |
| | 26/8/25 | | | Analyzing | Determine suitable unit of analysis for different research questions | Case-based unit of analysis mapping | |
| I | 27/8/25 | Hypotheses – Types and formulation | CO1 | Remembering | Define hypothesis and list its types | Class-based hypothesis writing exercise | |
| | 29/8/25 | | | Understanding | Explain the role of hypotheses in research | Discussion with examples | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 29/8/25 | | | Applying | Formulate appropriate hypotheses for given research problems | Hands-on hypothesis development | |
| | 4 | | | Analyzing | Evaluate if a hypothesis is testable and measurable | Peer review of written hypotheses | |
| **UNIT II** | | | | | | | |
| II | 1/9/25 | Primary and Secondary Sources of Data | CO2 | Remembering | Recall types and sources of primary and secondary data | Lecture + examples from research papers | |
| | 11 | | | Understanding | Explain differences between primary and secondary data | Class discussion with real-life examples | |
| | 2/9/25 | | | Applying | Identify appropriate data sources for given research problems | Case-based activity using sample research scenarios | |
| | 11 | | | Analyzing | Analyze pros and cons of using primary vs secondary data | Group comparison table creation | |
| II | 3/9/25 | Qualitative vs Quantitative Data | CO2 | Remembering | Recall types and sources of primary and secondary data | Lecture + examples from research papers | |
| | 11 | | | Understanding | Explain differences between primary and secondary data | Class discussion with real-life examples | |
| | 4/9/25 | | | Applying | Identify appropriate data sources for given research problems | Case-based activity using sample research scenarios | |
| | 11 | | | Analyzing | Analyze pros and cons of using primary vs secondary data | Group comparison table creation | |

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| II | 8/9/25 | Methods of Data Collection | CO2 | Remembering | Define and distinguish qualitative and quantitative data | Group activity and chart formation | |
| | 11 | | | Understanding | Describe characteristics and uses of each data type | Interactive concept mapping | |
| | 9/9/25 | | | Applying | Classify data examples from research as qualitative or quantitative | Data classification worksheet | |
| | 11 | | | Analyzing | Analyze situations to choose suitable data types | Group debate or justification-based activity | |
| II | 10/9/25 | Research Methods: Field, Lab, Survey, Observation | CO2 | Remembering | List various methods of data collection | Mock data collection planning | |
| | 11 | | | Understanding | Describe each method with examples | Concept explanation with tool demonstration | |
| | 11/9/25 | | | Applying | Choose suitable data collection method for specific research | Group design of mini data collection strategy | |
| | 11/9/25 | | | Analyzing | Compare efficiency, cost, and validity across methods | Method evaluation matrix creation | |
| II | 12/9/24 | Data Based | CO2 | Remembering | Define data-based, | Visuals and case illustrations | |

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| | 16/9/25 | Research, Longitudinal & Panel Studies | | | longitudinal, and panel studies | | |
| | 17/9/25 | | | Understanding | Explain how these studies differ in structure and purpose | Animated timeline walkthrough with examples | |
| | 18/9/25 | | | Applying | Identify suitable time-based design for given research scenario | Matching exercise or quiz | |
| | 19/09/25 | | | Analyzing | Compare findings and usability across different study designs | Group activity on dissecting research papers using these designs | |
| **UNIT III** | | | | | | | |
| III | 24/9/25 | Measurement Scales: Nominal, Ordinal, Interval, Ratio | CO3 | Remembering | Recall the types and use of measurement scales | Illustration with survey examples | |
| | 25/9/25 | | | Understanding | | | |
| | | | | Applying | | | |
| | | | | Analyzing | | | |
| III | 26/9/25 | Designing Uni & Bi-Dimensional Scales | CO3 | Remembering | Describe the process of scale development | Activity with Likert scale construction | |
| | 30/9/25 | | | Understanding | | | |
| | | | | Applying | | | |

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| | 1/10/25 | | | Analyzing | | | |
| III | 3/10/25 | Reliability and Validity Testing | CO3 | Remembering | Recall the types and use of measurement scales | Illustration with survey examples | |
| | 8/10/25 | | | Understanding | Differentiate among the four types of measurement scales | Group discussion with scale identification task | |
| | 9/10/25 | | | Applying | Apply correct scale to different data types | Survey designing in pairs | |
| | 10/10/25 | | | Analyzing | Analyze the impact of scale type on data interpretation | Case analysis using existing survey data | |
| III | 14/10/25 | Sampling – Types and Procedures | CO3 | Remembering | Describe the process of scale development | Activity with Likert scale construction | |
| | 15/10/25 | | | Understanding | Explain differences between uni-dimensional and bi-dimensional scales | Conceptual discussion with examples | |
| | 16/10/25 | | | Applying | Develop a scale for measuring attitudes or preferences | Group activity on building a custom scale | |
| | 17/10/25 | | | Analyzing | Evaluate scale effectiveness for different constructs | Peer review and feedback session | |
| III | 28/10/25 | Hypothesis Testing: t-Test, Z-Test, ANOVA, | CO3 | Remembering | Identify appropriate statistical test based on data type and hypothesis | Problem-solving and SPSS/R lab | |

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| | 29/10/25 | Chi-square | | | | | |
| | 11 | | | Understanding | Explain assumptions and conditions for using each test | Discussion with formula and test conditions explanation | |
| | 30/10/25 | | | Applying | Apply the correct test to a given dataset | Hands-on analysis using software | |
| | 31/10/25 | | | Analyzing | Interpret and compare outcomes of different hypothesis tests | Interpretation exercise with real or simulated data | |
| **UNIT IV** | | | | | | | |
| IV | 7/11/25 | Meaning, Types and Layout of Research Report | CO4 | Remembering | Define components and structure of a research report | Lecture with template review | |
| | | | | Understanding | Explain different types of research reports and their use | Comparative analysis using report samples | |
| | 12/11/25 | | | Applying | Identify correct layout for a given research purpose | Layout-matching exercise | |
| | | | | Analyzing | Evaluate how structure affects readability and presentation | Group critique of varied report formats | |
| IV | 13/11/25 | Steps in Report Writing | CO4 | Remembering | Explain steps in planning and writing a report | Process chart activity | |
| | | | | Understand | Describe logical | Interactive discussion with | |

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| | | | | anding | sequence and purpose of each step | flowchart | |
| | 14/11/25 | | | Applying | Organize content using stepwise planning | Report drafting in groups using given topic | |
| | | | | Analyzing | Assess how each step contributes to report quality | Reflection and correction of flawed reports | |
| IV | 18/11/25 | Report Format and Referencing Styles | CO4 | Remembering | Use referencing styles like APA, MLA | Citation practice and formatting activity | |
| | | | | Understanding | Explain importance of proper referencing and formatting | Demonstration with examples | |
| | 19/11/25 | | | Applying | Format references and citations in a given report | Referencing exercise using citation generator tools | |
| | | | | Analyzing | Compare different referencing styles and evaluate their appropriateness | Case-based referencing style analysis | |
| IV | 20/11/25 | Evaluation of Research Report | CO4 | Remembering | Analyze a report for clarity, validity, and referencing | Peer-review and rubric-based evaluation | |
| | | | | Understanding | Explain criteria used to evaluate a report | Rubric walkthrough and component breakdown | |
| | 21/11/25 | | | Applying | Use an evaluation | Group activity with anonymized sample reports | |

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| | | | | | checklist to assess reports | | |
| | 24/11/25 | | | Analyzing | Critique report structure, arguments, and evidence quality | Comparative report assessment using structured format | |

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**Suggested Readings (Latest Editions):**

1. **Business Research Methods** – Donald R. Cooper & Pamela S. Schindler
2. **Research Methodology: Methods and Techniques** – C.R. Kothari & Gaurav Garg
3. **Research Methods for Business: A Skill-Building Approach** – Uma Sekaran & Roger Bougie
4. **Business Research Methods** – William G. Zikmund & Barry J. Babin
5. **Marketing Research: An Applied Orientation** – Naresh K. Malhotra

Miss Musrat

**Name & Signature of Faculty** **HOD** **Director**

# MBS COLLEGE
**(Affiliated to GGSIP University)**

## SCHOOL OF MANAGEMENT

### Lesson Plan for Consumer Behaviour

| Programme: BBA | Semester: III | Paper Code: 209 | Academic Year: 2025-2026 |
|---|---|---|---|

**Course Outcomes (COs)**

CO1: Understand the concept, scope, and importance of consumer behaviour and analyze the consumer decision-making process.

CO2: Examine the role of individual determinants such as motivation, perception, learning, personality, attitudes, values, and lifestyle in shaping consumer behaviour.

CO3: Analyze the impact of external determinants including culture, social class, reference groups, family, and social media on consumer behaviour.

CO4: Evaluate emerging issues in consumer behaviour such as diffusion of innovation, changing consumer behaviour in India, customer satisfaction measurement, public policy, ethics, and application of technology and AI.

**Programme Outcomes (POs)**

PO1: Apply knowledge of management theories and practices to solve business problems.

PO2: Communicate effectively in professional and managerial contexts.

PO3: Demonstrate ethical awareness and social responsibility in business decisions.

PO4: Analyze economic, social, cultural, political, and legal environments affecting business.

PO5: Apply critical thinking and problem-solving skills in business situations.

PO6: Work effectively as an individual and as a member of a team.

PO7: Understand the impact of technology and innovation on business and society.

PO8: Apply basic research skills and data analysis for business decision-making.

**CO–PO Mapping Matrix**

| CO / PO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 2 |
| CO2 | 3 | 2 | 2 | 2 | 3 | 1 | 1 | 2 |
| CO3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 |
| CO4 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 |

**Mapping Scale: 3 = High, 2 = Moderate, 1 = Low**

| Lecture-No | Lecture Objective | Topic/ Module Details with subtopics | Methodology | Reference /text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | | **UNIT I** | | | | |
| L-1 | To introduce the concept and scope of consumer behaviour | Introduction to Consumer Behaviour: Meaning, Scope & Relevance of Consumer Behaviour Studies | Lecture + PPT | Hawkins, D.I., Best, R.J., & Coney, K.A., | 01/09/2025 | — |
| L-2 | To explain different approaches to studying consumer behaviour | Approaches to studying Consumer Behaviour (Psychological, Sociological, Economic) | Lecture | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 02/09/25 | — |
| L-3 | To map the consumer journey in the buying process | Consumer Journey Map: Problem Recognition, Information Search | Lecture + Case Example | Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 03/09/25 | — |
| L-4 | To describe alternative evaluation, decision rules and purchase behaviour | Alternative Evaluation – Decision Rules – Purchase, Outlet Selection | Lecture + PPT | Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., | 04/09/25 | — |

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|---|---|---|---|---|---|---|
| L-5 | To explore post-purchase behaviour and satisfaction | Post Purchase Behaviour and Customer Satisfaction; Types of Buying Behaviour | Case Study + Discussion | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 8/09/25 | Case? |
| L-6 | To analyse 'types of buying behaviour' and the concept of consumer involvement | Types of Buying Behaviour (Complex, Habitual, Variety-Seeking, Dissonance-Reducing); Role of Consumer Involvement | Lecture | Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., Hawkins, D.I., Best, R.J., & Coney, K.A., | 9/09/25 | — |
| L-7 | To review and integrate the consumer decision process | Review: Problem Recognition → Information Search → Alternative Evaluation → Purchase | Interactive Lecture + Group Activity | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., | 10/09/25 | — |
| L-8 | To discuss the relevance of the consumer journey map for marketing strategy | Applying the consumer journey map to Marketing Strategy & Buyer Decision Making | Lecture + PPT | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., | 11/09/25 | — |
| L-9 | To facilitate student assignment on applying consumer journey in a real market scenario | Assignment: Students map a consumer journey for a selected product/service | Assignment | Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 15/09/25 | — |
| L-10 | To summarise Unit I and test comprehension | Unit I Summary and Case Discussion on consumer behaviour process | Case Study + Quiz | | 16/09/25 | Case? |
| | | UNIT II | | | | |
| L-11 | To understand motivation as a key internal determinant | Motivation; Attention; Perception; Consumer | Lecture + PPT | | 17/09/25 | — |

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|---|---|---|---|---|---|---|
| | | Imagery (the intact one) | | | | |
| L-12 | To explore learning and memory in consumer behaviour | Learning & Memory; Theories of Learning; Application in Consumer Behaviour | Lecture + Example | | 18/09/25 | |
| L-13 | To examine personality and self-concept in consumer behaviour | Personality and Self-Concept; Consumer Attitudes – Formation and Change (the intact one) | Lecture + Discussion | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 22/09/25 | |
| L-14 | To comprehend consumer values and lifestyles and their marketing implications | Consumer Values and Lifestyles (e.g., VALS framework) | Lecture | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 23/09/25 | |
| L-15 | To enable assignment work on individual determinants influencing a product category | Assignment: Choose a product category; analyse how motivation, perception, learning, personality influence consumer decisions | Assignment | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 24/09/25 | |
| L-16 | To review and integrate internal determinants in a marketing context | Internal Determinants Summary; Case Discussion | Case Study + Group Discussion | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., | 28/09/25 | Case 7. |
| L-17 | To discuss how attention and perception influence consumer behaviour | Attention, Perception and Consumer Imagery – Concepts, | PPT + Lecture | Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 29/09/25 | |

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| | | Marketing Implications | | | | |
| L-18 | To examine attitude formation and change in the context of marketing | Attitudes: Formation, Change; Multi-attribute Models | Lecture | Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 30/09/25 | — |
| L-19 | To analyse lifestyle, psychographics and consumer segmentation | Consumer Values & Lifestyles; Psychographics; Implications for Marketing | Lecture + Activity | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., | 1/10/25 | — |
| L-20 | To summarise Unit II and conduct student presentation | Unit II Review, Student Presentations on internal determinants & marketing strategy | Student Presentations + Quiz | Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., | 6/10/25 | — |
| | | UNIT III | | | | |
| L-21 | To introduce external determinants of consumer behaviour | External Determinants – Culture & Subculture; Social Class (the intact one) | Lecture | | 8/10/25 | — |
| L-22 | To examine the influence of culture and sub-culture on buying behaviour | Influence of Culture and Subculture; Impact on Consumer Behaviour | Case Study + Lecture | | 9/10/25 | case |
| L-23 | To analyse social class, reference groups and their marketing implications | Social Class; Reference Groups; Word of Mouth, Opinion Leadership (the intact one) | Lecture + Group Activity | | 13/10/25 | — |
| L-24 | To explore family, peer and online social influences | Family Influences; Online Social Influences: Social Media & e-WOM; Peer Influence on Consumer Behaviour | Lecture + PPT | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, Ghatak, Anita, Hawkins, D.I., Best, R.J., & Coney, K.A. | 14/10/25 | — |

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| L-25 | To facilitate student assignment on external determinants in a digital context | Assignment: Choose a brand; analyse how social media, e-WOM, peer/social influencers affect its consumer behaviour | Assignment | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Ghatak, Anita, Hawkins, D.I., Best, R.J., & Coney, K.A., | 15/10/25 | — |
| L-26 | To discuss case studies on external influence on consumption | Case Study: Role of influencers, social media, sub-culture in brand adoption | Case Study + Discussion | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Ghatak, Anita, Hawkins, D.I., Best, R.J., & | 16/10/25 | case |
| L-27 | To review and integrate external determinants for marketing strategy | Review of External Determinants; Implications for Marketing Mix | Lecture + PPT | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Ghatak, Anita, Hawkins, D.I., Best, R.J., & Coney, K.A., | 28/10/25 | — |
| L-28 | To examine word of mouth and opinion leadership in depth | Word of Mouth (WOM), Opinion Leadership, Social Influencers and their effect on consumers (the intact one) | Lecture | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, Ghatak, Anita, Hawkins, D.I., | 29/10/25 | — |
| L-29 | To explore application of external determinants in real market settings | Real-world examples: Peer influence, social media campaigns, cross-culture marketing | Activity + Group Discussion | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., Ghatak, Anita, Hawkins, D.I., Best, R.J., & Coney, K.A., | 30/10/25 | — |
| L-30 | To summarise Unit III and conduct unit test | Unit III Review & Test | Quiz/Test | | 10/11/25 | — |
| | | UNIT IV | | | | |
| L-31 | To introduce diffusion of innovation and changing consumer behaviour in India | Diffusion of innovation; Changing Nature of Consumer Behaviour in India (the intact one) | Lecture + PPT | Ghatak, Anita, | 11/11/25 | — |

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| L-32 | To discuss measurement of customer satisfaction and evolving policy & public-policy issues | Measuring Customer Satisfaction: Tools & Scales; Consumer Behaviour and Public Policy | Lecture + Case Study | Ghatak, Anita, | 12/11/25 | Case ? |
| L-33 | **To explore the dark side of consumer behaviour and shaping strategies** | **Dark Side of Consumer Behaviour; Shaping Consumer Behaviour – Offline & Online** | Lecture + Discussion | Hawkins, D.I., Best, R.J., & Coney, K.A., | 13/11/25 | — |
| L-34 | To examine role of AI and technology in predicting consumer behaviour | Application of AI in Predicting Consumer Behaviour (the intast one) | Lecture | INTERNET SOURCES | 17/11/25 | — |
| L-35 | To assign student project on emerging issues in consumer behaviour | Assignment/Project: Students explore a recent trend (e.g., digital, AI, sustainability) and its impact on consumer behaviour | Assignment | INTERNET SOURCES | 18/11/25 | — |
| L-36 | To discuss case studies on emerging issues in India and globally | Case Study: Changing consumer behaviour in India; Impact of social media, technology, sustainability | Case Study + Discussion | Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, Hawkins, D.I., Best, R.J., & Coney, K.A., | 19/11/25 | Case ? |
| L-37 | To review and integrate emerging trends into strategic marketing decisions | Review of Emerging Issues; Implications for marketing strategies | Lecture + PPT | | 20/11/25 | — |
| L-38 | To conduct student presentation on emerging | Student Presentations: Emerging Issues, | Presentations | | 21/11/25 | — |

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| | consumer behaviour topics | Innovations, AI, Sustainability | | | | |
| L-39 | To conduct comprehensive revision of the full course | Comprehensive Revision + Mock Test | Quiz / Review Session | — | 24/11/25 | — |
| L-40 | To conclude the course with integrative case study and final assessment | Final Case Study + Course Summary + Feedback | Case Study + Assessment | — | 24/11/25 | — |
| L-41 | Revision | | | | | |
| L-42 | Revision | | | | | |

**TEXT BOOKS**

***References:***


1. Schiffman, L.G., Wisenblit, J., & Ramesh Kumar, S., *Consumer Behaviour*, Pearson Education.
2. Hawkins, D.I., Mothersbaugh, D.L., & Mookerjee, O.L., *Consumer Behaviour – Building Marketing Strategy*, McGraw Hill.
3. Hawkins, D.I., Best, R.J., & Coney, K.A., *Consumer Behaviour*, Tata McGraw Hill.
4. Anita Ghatak, *Consumer Behaviour in India*, D.K. Agencies (P) Ltd.
5. Selected research papers on technology/AI influence and emerging trends in Consumer Behaviour.


**URL of Digital Resources (Unit-wise)**

**Unit I – Introduction to Consumer Behaviour**

1. https://www.youtube.com/watch?v=ddGjpTiLccE YouTube
2. https://www.youtube.com/watch?v=VObGB2U9iWI YouTube
3. https://www.youtube.com/watch?v=7qq-nz73Uv4 YouTube

**Unit II – Individual Determinants of Consumer Behaviour**

1. https://www.youtube.com/watch?v=IJ9X27fpMjk YouTube
2. https://www.youtube.com/watch?v=yv2cp1fmSt0 YouTube
3. https://www.youtube.com/watch?v=Tdyy1LK1GF4

**Unit III – External Determinants of Consumer Behaviour**

1. https://www.youtube.com/watch?v=XopdvOM1fAQ YouTube
2. https://www.youtube.com/watch?v=5Zp7c6xY-04 YouTube
3. https://www.youtube.com/watch?v=caJIGi1CvvI YouTub

**Unit IV – Emerging Issues in Consumer Behaviour**

1. https://www.youtube.com/watch?v=dYdKGlMFLHc YouTube

2. https://www.youtube.com/watch?v=XowaDm1GEVk YouTube
3. https://www.youtube.com/watch?v=yv2cp1fmSt0

FACULTY SIGNATURE

DEPUTY DIRECTOR

DIRECTOR

# MBS COLLEGE, DWARKA

## LESSON PLAN – STOCK MARKET AND INVESTMENT PLANNING

| | | |
|---|---|---|
| **Paper Code** | BAECO213 | PROGRAMME – BBA |
| **Paper** | Stock Market and Investment Planning | SEMESTER – III |
| **Lectures / Week** | 2 | |
| **Tutorial / Week** | 1 | |
| **Credits** | 3 | |
| **Evaluation** | Internal: 40 Marks \| External: 60 Marks | |
| **Mode of Exam** | NUES | |

### Course Objectives / Outcomes

- Introduce students to the basic functioning of the Indian stock market and investment options.
- CO1: Introduce students to stock markets and basics of investment.
- CO2: Give students an insight into income stream evaluation.
- CO3: Familiarize students with equity valuation concepts and procedure.
- CO4: Equip students with grievance redressal mechanism and make them aware of investor rights.

### Lecture-wise Lesson Plan

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| **Unit I – Introduction to Investment and the Securities Market (CO1)** | | | | | |
| 1 | To enable students to explain the steps in the investment decision process and get an overview of investment choices. | Lecture; students map the steps in an investment decision. | Tripathi – Fundamentals of Investment; Avadhani – Investment Management | 2/9/25 | — |
| 2 | To help students distinguish commodities, real estate and financial assets by characteristics and suitability. | Comparison matrix; discussion of characteristics and suitability. | Tripathi – Fundamentals of Investment; Chandra – Investment Game: How to Win | 3/9/25 | — |
| 3 | To familiarize students with the Indian securities market and its participants and their roles. | Market-structure mapping activity. | Tripathi – Fundamentals of Investment; Avadhani – Investment Management | 4/9/25 | — |
| 4 | To enable students to describe the trading of securities and the basic trading process. | Process flow demonstration; classroom simulation; flowchart task. | Tripathi – Fundamentals of Investment; Avadhani – Investment Management | 8/9/25 | — |

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| 5 | To help students explain what security market indices represent and how they are used. | Index interpretation exercise using sample data. | Tripathi – Fundamentals of Investment; Avadhani – Investment Management | 9/9/25 | — |
| 6 | To enable students to identify appropriate sources of financial information for investment decisions. | Information-source evaluation activity. | Tripathi – Fundamentals of Investment; Chandra – Investment Game: How to Win | 10/9/25 | — |
| 7 | To enable students to calculate basic return and risk measures and explain the return–risk trade-off. | Worked numerical examples; Tutorial problem set. | Avadhani – Investment Management; Milling – The Basics of Finance | 11/9/25 | — |
| 8 | To help students explain how taxes and inflation affect investment returns (nominal vs. real). | Numerical illustration of nominal vs. affected returns; practice questions. | Tripathi – Fundamentals of Investment; Milling – The Basics of Finance | 15/9/25 | — |
| **Unit II – Bonds (CO2)** | | | | | |
| 9 | To enable students to explain the fundamentals of investment bonds, their terminology and features. | Lecture + bond terminology worksheet. | Tripathi – Fundamentals of Investment; Avadhani – Investment Management | 16/9/25 | — |
| 10 | To enable students to estimate bond yields through basic yield calculations. | Tutorial: yield calculation problems (assessed problem set). | Avadhani – Investment Management; Milling – The Basics of Finance | 17/9/25 | Tutorial |
| 11 | To help students explain and apply the principles and procedure of bond valuation. | Worked examples; guided valuation exercise. | Avadhani – Investment Management; Milling – The Basics of Finance | 18/9/25 | — |
| 12 | To enable students to explain default risk and interpret credit-rating information. | Case discussion on credit quality; rating interpretation. | Avadhani – Investment Management; Tripathi – Fundamentals of Investment | 22/9/25 | Case |
| **Unit III – Security Analysis and Equity Valuation (CO3)** | | | | | |
| 13 | To enable students to identify the elements of fundamental analysis of securities. | Analytical framework exercise using a hypothetical company. | Avadhani – Investment Management; Tripathi – Fundamentals of Investment | 24/9/25 | — |
| 14 | To help students explain the purpose of technical analysis and interpret basic chart patterns. | Chart-reading demonstration using sample data. | Avadhani – Investment Management; Chandra – Investment Game: How to Win | 25/9/25 | — |
| 15 | To enable students to describe the Efficient Market Hypothesis and its implications for security analysis. | Concept discussion; scenario-based evaluation. | Avadhani – Investment Management; Tripathi – Fundamentals of Investment | 29/9/25 | — |

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| 16 | To enable students to apply equity valuation through Dividend Capitalisation Models and the Price Earnings Approach. | Worked examples; Tutorial valuation problems. | Avadhani – Investment Management; Milling – The Basics of Finance | 30/9/25 | — |
| **Unit IV – Investor Protection and Awareness (CO4)** | | | | | |
| 17 | To help students explain the roles of SEBI and the stock exchange in investor protection. | Institution-role mapping; investor-protection discussion. | Tripathi – Fundamentals of Investment; SEBI / NSE / BSE investor-education material | 8/10/25 | — |
| 18 | To enable students to outline the investor grievance and redressal mechanism. | Case-based grievance pathway exercise. | Tripathi – Fundamentals of Investment; SEBI / NSE / BSE investor-education material | 10/10/25 | case? |
| 19 | To enable students to explain insider trading and its relevance to investor protection. | Case discussion; identify conduct that raises concerns. | Tripathi – Fundamentals of Investment; Avadhani – Investment Management | 29/10/25 | — |
| 20 | To help students identify investor rights and responsible investment practices. | Investor-awareness activity; checklist creation; final quiz. | Chandra – Investment Game: How to Win; SEBI / NSE / BSE investor-education material | 4/11/25 | — |

**Recommended Readings (from the Syllabus)**

- Tripathi, V. – Fundamentals of Investment, Taxmann Publication, New Delhi.
- Avadhani, V. A. – Investment Management, Himalaya Publishing House Pvt. Ltd., Mumbai.
- Chandra, P. – Investment Game: How to Win, Tata McGraw Hill Education, New Delhi.
- Milling, B. E. – The Basics of Finance: Financial Tools for Non-Financial Managers, Universe Company, Indiana.
- SEBI / NSE / BSE investor-education material (added for Unit IV; not in the syllabus list).

*Note: Book mapping is suggested from the syllabus readings; tutorials support numerical work (lectures 7, 8, 10, 11, 16).*

**FACULTY NAME AND SIGN**

**HOD / PD NAME AND SIGN**

# MBS COLLEGE, DWARKA

Affiliated to Guru Gobind Singh Indraprastha University (GGSIPU), Delhi

## LESSON PLAN – ACADEMIC SESSION 2026–27

| | | | |
|---|---|---|---|
| **Course Code** | BBA 215 | **Course Title** | Foundation of Entrepreneurship and Startups |
| **Programme** | Bachelor of Business Administration (BBA) | **Semester** | III |
| **L-T-P** | 4-0-0 | **Credits** | 04 |
| **Total Teaching Hours** | 60 Hours | **Teaching Hours / Unit** | 15 Hours |
| **Institution** | MBS College, Dwarka | **University** | GGSIPU, Delhi |

### Course Objective

To equip students with the knowledge, skills and entrepreneurial mindset required to identify opportunities, launch and manage successful entrepreneurial ventures within a dynamic startup ecosystem.

### Course Outcomes

- CO1: Gain knowledge and understand fundamentals of entrepreneurship.
- CO2: Exhibit professional skill and ability to identify business opportunities, conduct market research, and validate its feasibility.
- CO3: Apply and create comprehensive business plans and craft business models.
- CO4: Gain insights into various startup ecosystems and evaluate schemes offered by different institutions.

### Lecture-wise Lesson Plan

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| **Unit I – Introduction to Entrepreneurship (CO1)** | | | | | |
| 1 | To enable students to explain the meaning and concept of entrepreneurship and its evolution. | Interactive lecture; discussion. Activity: Brainstorming – Who is an entrepreneur? | Desai – Dynamics of Entrepreneurial Development & Management; Hisrich, Peters & Shepherd – Entrepreneurship | 1/9/25 | — |
| 2 | To help students trace the history and development of entrepreneurship, including in India and the changing business landscape. | Lecture + timeline discussion. Activity: Short discussion on Indian startup evolution. | Desai – Dynamics of Entrepreneurial Development & Management; Charantimath – Entrepreneurship Development & Small Business Enterprises | 2/9/25 | — |
| 3 | To enable students to explain the role of entrepreneurship in economic development – employment, innovation, income and regional development. | Lecture; examples. Activity: Case discussion – startups and job creation. | Desai – Dynamics of Entrepreneurial Development & Management; Kuratko – Entrepreneurship: Theory, Process, Practice | 4/9/25 | — |

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| 4 | To help students separate myths about entrepreneurs from realities. | Interactive lecture; myth-busting. Activity: Myth vs Fact classroom activity. | Hisrich, Peters & Shepherd – Entrepreneurship; Kuratko – Entrepreneurship: Theory, Process, Practice | 8/9/25 | — |
| 5 | To enable students to classify entrepreneurs – innovative, imitative, Fabian, drone, small business, social and others. | Lecture + comparative discussion. Activity: Entrepreneur-type identification exercise. | Desai – Dynamics of Entrepreneurial Development & Management; Charantimath – Entrepreneurship Development & Small Business Enterprises | 10/9/25 | — |
| 6 | To consolidate and apply Unit I concepts. | Recap; quiz; case analysis. Activity: Mini case + formative quiz. | Desai – Dynamics of Entrepreneurial Development & Management; Hisrich, Peters & Shepherd – Entrepreneurship | 11/9/25 | — |
| **Unit II – Entrepreneurial Competencies and Skills (CO1, CO2)** | | | | | |
| 7 | To enable students to explain entrepreneurial competencies and the need for them in venture creation. | Lecture + self-assessment. Activity: Entrepreneurial competency checklist. | Desai – Dynamics of Entrepreneurial Development & Management; Kuratko – Entrepreneurship: Theory, Process, Practice | 16/9/25 | — |
| 8 | To help students apply creative thinking and design thinking to identify problems and generate ideas. | Workshop; design-thinking approach. Activity: Problem identification and ideation activity. | Kuratko – Entrepreneurship: Theory, Process, Practice; Kelley – Creative Confidence | 17/9/25 | — |
| 9 | To enable students to describe the entrepreneurial decision process – opportunity recognition, evaluation and decision making. | Case method; discussion. Activity: Opportunity evaluation case. | Hisrich, Peters & Shepherd – Entrepreneurship; Kuratko – Entrepreneurship: Theory, Process, Practice | 23/9/25 | — |
| 10 | To help students draw lessons from the success stories of successful ventures. | Case studies; video-based discussion. Activity: Success-story analysis. | Desai – Dynamics of Entrepreneurial Development & Management; Hisrich, Peters & Shepherd – Entrepreneurship | 29/9/25 | — |
| 11 | To enable students to explain opportunities, barriers and the support ecosystem for women entrepreneurship. | Lecture + discussion. Activity: Case – women-led Indian enterprise. | Desai – Dynamics of Entrepreneurial Development & Management; Hisrich, Peters & Shepherd – Entrepreneurship | 30/9/25 | — |

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| 12 | To enable students to identify local opportunities for rural entrepreneurship. | Lecture + field-oriented discussion. Activity: Rural enterprise opportunity mapping. | Desai – Dynamics of Entrepreneurial Development & Management; Charantimath – Entrepreneurship Development & Small Business Enterprises | 6/10/25 | — |
| 13 | To enable students to explain green entrepreneurship – eco-friendly products/services, sustainability and competitive advantage. | Lecture + case analysis. Activity: Green venture idea exercise. | Schaper – Making Ecopreneurs; Kuratko – Entrepreneurship: Theory, Process, Practice | 13/10/25 | — |
| 14 | To familiarize students with emerging trends in green entrepreneurship and sustainable business. | Discussion; trend analysis. Activity: Sustainability trend scan. | Schaper – Making Ecopreneurs; MSME / Startup India official portals | 14/10/25 | — |
| 15 | To recap Unit II and assess entrepreneurial competencies. | Quiz + presentation. Activity: Group presentation on an entrepreneurial opportunity. | Desai – Dynamics of Entrepreneurial Development & Management; Kuratko – Entrepreneurship: Theory, Process, Practice | 28/10/25 | — |
| **Unit III – Crafting Business Models and Business Plans (CO3)** | | | | | |
| 16 | To introduce business models – their components and logic. | Lecture + examples. Activity: Business model comparison. | Osterwalder & Pigneur – Business Model Generation; Hisrich, Peters & Shepherd – Entrepreneurship | 29/10/25 | — |
| 17 | To enable students to create value propositions – conventional industry logic and value innovation logic. | Interactive lecture; case method. Activity: Value proposition canvas exercise. | Osterwalder & Pigneur – Business Model Generation; Kuratko – Entrepreneurship: Theory, Process, Practice | 10/11/25 | — |
| 18 | To help students understand customer needs and pain points for customer-focused innovation. | Workshop; customer-centric approach. Activity: Customer persona + pain-point mapping. | Osterwalder & Pigneur – Business Model Generation; Ries – The Lean Startup | 12/11/25 | — |
| 19 | To enable students to build and analyse business models. | Lecture + group activity. Activity: Business model analysis of a startup. | Osterwalder & Pigneur – Business Model Generation; Hisrich, Peters & Shepherd – Entrepreneurship | 13/11/25 | — |
| 20 | To enable students to explain and prepare a Business Model Canvas using its nine building blocks. | Demonstration + workshop. Activity: Prepare a Business Model Canvas. | Osterwalder & Pigneur – Business Model Generation | 18/11/25 | — |

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| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| 21 | To introduce lean startups – the build-measure-learn cycle and MVP. | Lecture + case discussion. Activity: MVP design activity. | Ries – The Lean Startup; Blank & Dorf – The Startup Owner's Manual | 19/11/25 | — |
| 22 | To enable students to draft a business plan – structure, market, operations and strategy. | Workshop. Activity: Business plan outline preparation. | Hisrich, Peters & Shepherd – Entrepreneurship; Kuratko – Entrepreneurship: Theory, Process, Practice | 19/11/25 | Workshop |
| 23 | To help students develop business pitching skills – pitch structure, storytelling, presentation and Q&A. | Demonstration + role play. Activity: Elevator pitch / startup pitch. | Hisrich, Peters & Shepherd – Entrepreneurship; Ries – The Lean Startup | 20/11/25 | — |
| 24 | To enable students to present business plans/pitches and receive feedback. | Student presentations; peer review. Activity: Pitch evaluation using rubric. | Hisrich, Peters & Shepherd – Entrepreneurship; Osterwalder & Pigneur – Business Model Generation | 20/11/25 | — |
| **Unit IV – Institutions Supporting Small Business Enterprises (CO4)** | | | | | |
| 25 | To familiarize students with central-level institutions supporting entrepreneurship and small businesses. | Lecture + institutional mapping. Activity: Institution identification activity. | Desai – Dynamics of Entrepreneurial Development & Management; Charantimath – Entrepreneurship Development & Small Business Enterprises; MSME / Startup India official portals | 21/11/25 | — |
| 26 | To familiarize students with state-level institutions and agencies supporting entrepreneurs. | Lecture + discussion. Activity: Compare central and state support. | Desai – Dynamics of Entrepreneurial Development & Management; Charantimath – Entrepreneurship Development & Small Business Enterprises; MSME / Startup India official portals | 22/11/25 | — |
| 27 | To help students understand other agencies and the wider entrepreneurship support ecosystem. | Interactive lecture. Activity: Startup ecosystem mapping. | Charantimath – Entrepreneurship Development & Small Business Enterprises; MSME / Startup India official portals | 24/11/25 | — |
| 28 | To enable students to explain the role of industry associations in enterprise development. | Lecture + examples. Activity: Industry association role analysis. | Desai – Dynamics of Entrepreneurial Development & Management; Charantimath – Entrepreneurship Development & Small Business Enterprises | 24/11/25 | — |

Faculty Signature

Deputy Director

Director

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**MBS COLLEGE**

**(Affiliated to GGSIP University)**

| Programme: BBA | Semester: IV | Paper Code: 202 | Academic Year: 2025-2026 |
|---|---|---|---|

## Subject: Cost and Management Accounting  Faculty Name: Dr. Jyoti Sharma

### Course Outcomes (COs)

CO1: Understand concepts and tools of cost and management accounting.

CO2: Prepare budgets and apply variance analysis for planning and control.

CO3: Analyze performance using standard costing, ABC and Balanced Scorecard.

CO4: Evaluate decisions using marginal costing and CVP analysis.

### Programme Outcomes (POs)

PO1: Apply management knowledge.

PO2: Communicate effectively.

PO3: Ethical responsibility.

PO4: Analyze business environment.

PO5: Critical thinking.

PO6: Team work.

PO7: Use of technology.

PO8: Lifelong learning.

### CO–PO Mapping Matrix

| CO / PO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | 2 | 1 | 3 | 2 | 1 | 1 | 2 |
| CO2 | 3 | 2 | 2 | 3 | 3 | 1 | 2 | 2 |
| CO3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 |
| CO4 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 |

Scale: 3 = High, 2 = Moderate, 1 = Low

**Unit I: Fundamentals of Management Accounting**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|---|
| 1 | Intro to MA | Meaning, nature & scope | Lecture | Maheshwari & Mittal | 20/01/26 21/01/26 | — |
| 2 | Objectives | Objectives & importance | Lecture | Maheshwari & Mittal | 22/01/26 | — |
| 3 | Comparison | Cost vs Financial vs MA | Lecture | Dr. S.N. Mittal | 23/01/26 | — |
| 4 | Functions | Functions of MA | Lecture | Dr. S.N. Mittal | 27/01/26 | — |
| 5 | Tools | Tools & techniques | Lecture | Dr. S.N. Mittal | 28/01/26 | — |
| 6 | Cost concepts | Cost concepts | Lecture | Maheshwari & Mittal | 29/01/26 | — |
| 7 | Cost behavior | Fixed & variable costs | Numerical | Maheshwari & Mittal | 02/02/26 | — |
| 8 | Cost sheet | Elements & format | Lecture | Maheshwari & Mittal | 03/02/26 10/02/26 | — |
| 9 | Cost sheet prep | Preparation | Numerical | 11/02/26 11/02/26 | 11/02/26 11/02/26 | — |
| 10 | Role | Role of management accountant | Discussion | ~~12/02/26~~ | 12/02/26 | — |
| 11 | Revision | Unit I revision | Tutorial | | | — |

**Unit II: Budgeting, Planning & Control**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|---|
| 12 | Budgeting | Meaning & objectives | Lecture | ? | 09/2/26 | — |
| 13 | Types | Types of budgets | Lecture | ? | 14/2 | — |
| 14 | Functional budgets | Sales, production, cash | Lecture | ? | 16/2 | — |
| 15 | Practice | Functional budgets | Numerical | ? | 17/2 | — |
| 16 | Comparison | Fixed vs flexible | Lecture | ? | 18/2 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| 17 | Flexible budget | Preparation | Numerical | ? | 20/2 | — |
| 18 | Modern budgets | ZBB & performance | Lecture | ? | 23/2 | — |
| 19 | Variance intro | Meaning & types | Lecture | ? | 24/2 | — |
| 20 | Variance calc | Material, Labour, OH | Numerical | ? | 25/2 | — |
| 21 | Control | Budgetary control | Lecture | ? | 26/2 | — |
| 22 | Revision | Unit II revision | Tutorial | ? | 2/3 | — |

**Unit III: Strategic Cost & Performance Management**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|---|
| 23 | Standard costing | Meaning & role | Lecture | ? | 5/3 | — |
| 24 | Variance control | Standard costing | Lecture | ? | 9/3 | — |
| 25 | BSC | Balanced Scorecard | Lecture | Internet sources | 10/03/21 | — |
| 26 | BSC application | Perspectives | Case Study | ? | 11/3/21<br>12/3/21 | — |
| 27 | Responsibility acc. | Centers & reporting | Lecture | ? | 16/3/21 | — |
| 28 | ABC | Activity-Based Costing | Lecture | ? | 17/3 | — |
| 29 | ABC steps | Benefits & steps | Lecture | ? | 18/3 | — |
| 30 | Cost control | Control vs reduction | Lecture | ? | 20/3 | — |
| 31 | Value analysis | Value engineering | Lecture | ? | 24/3<br>25/3 | — |
| 32 | Decision tools | Strategic tools | Lecture | ? | 27/3 | — |
| 33 | Revision | Unit III revision | Discussion | ? | 30/3 | — |

**Unit IV: Decision-Making Using MA Tools**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 34 | Costing | Variable vs absorption | Lecture | ? | 1/4 | — |
| 35 | Marginal costing | Concept | Lecture | ? | 2/4 9/4 | — |
| 36 | Contribution | P/V ratio | Numerical | ? | 13/4 | — |
| 37 | CVP | CVP analysis | Lecture | ? | 15/4 | — |
| 38 | BEP | BEP & MOS | Numerical | ? | 16/4, 20/4 | — |
| 39 | Make or buy | Decision | Numerical | ? | 21/4 | — |
| 40 | Product mix | Decision | Numerical | ? | 22/4 | — |
| 41 | Pricing | Special pricing | Case | ? | 23/4 | — |
| 42 | Shutdown | Operate or shutdown | Numerical | ? | 27/4 | — |
| 43 | Add/drop | Decision | Numerical | ? | 28/4 | — |
| 44 | Excel | Scenario analysis | Practical | ? | 29/4 | — |
| 45 | Revision | Full revision | Tutorial | ? | 30/4, 1/5 | — |

**Text Books**


1. Khan, M.Y. & Jain, P.K., Management Accounting, McGraw Hill Education.
2. Maheshwari, S.N. & Maheshwari, S.K., Cost and Management Accounting, Vikas Publishing House.
3. Jain, S.P. & Narang, K.L., Cost Accounting, Kalyani Publishers.


**Reference Books**


4. Horngren, C.T., Datar, S.M. & Rajan, M., Cost Accounting: A Managerial Emphasis, Pearson Education.
5. Kaplan, R.S. & Norton, D.P., The Balanced Scorecard: Translating Strategy into Action, Harvard Business School Press.
6. Drury, C., Management and Cost Accounting, Cengage Learning.
7. Lal, Jawahar & Srivastava, Seema, Cost Accounting, McGraw Hill Education.
8. Anthony, R.N. & Govindarajan, V., Management Control Systems, McGraw Hill. Unit-wise YouTube Learning Resources

**Subject Faculty** **Deputy Director** **Director**

## Lesson Plan for Business Analytics

| Programme: BBA | Semester: IV | Paper Code: BBA 204 | Academic Year: 2025-2026 |
|---|---|---|---|

No of hours allotted to complete the syllabi*: 40 (mentioned in the syllabus)

| Course Outcomes (CO): | | |
|---|---|---|
| | CO 1 | Gains knowledge and understands the concept of business analytics, its application in data warehousing with the aid of various techniques |
| | CO 2 | Visualize data using different tools and techniques |
| | CO 3 | Analyze data and interpret the results based on different data modelling & analytical tools |
| | CO 4 | Evaluate the use of data warehousing and data mining techniques across various industry sectors. |

Course Outcomes (CO to Programme Outcomes (PO) Mapping (scale 1: low, 2: Medium, 3: High

| CO/PO | PO01 | PO02 | PO03 | PO04 | PO05 |
|---|---|---|---|---|---|
| CO1 | 3 | 3 | 2 | 3 | 2 |
| CO2 | 3 | 3 | 3 | 3 | 3 |
| CO3 | 1 | 3 | 2 | 3 | 3 |
| CO4 | 2 | 3 | 2 | 3 | 3 |

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### LESSON PLAN – TABULAR FORMAT

| Lec No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date Delivered | HOD Remarks |
|---|---|---|---|---|---|---|
| | | UNIT I | | | | |
| L-1 | Introduce course & scope | Course overview, objectives, outcomes | Lecture | 1,2 | 20/01/26 | — |
| L-2 | Explain meaning of BA | Concept of Business Analytics | Lecture | 1,2 | 21/01/26 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-3 | Understand evolution | Evolution of Business Analytics | Lecture + Examples | 1,3 | 22/01/26 | — |
| L-4 | Explain analytics process | Analytics Life Cycle | Lecture | 1,2 | 23/01/26 | — |
| L-5 | Identify types of analytics | Descriptive, Predictive, Prescriptive | Lecture | 1,2 | 27/01/26 | — |
| L-6 | Understand roles | Data Scientist vs Data Engineer vs Business Analyst | Lecture | 3 | 29/01/26 | — |
| L-7 | Explain responsibilities | Roles & Responsibilities | Discussion | 3,4 | 30/01/26 | — |
| L-8 | Show applications | Business Analytics in Practice | Case Study | 5 | 02/02/26 | — |
| L-9 | Discuss career paths | Career in Business Analytics | Lecture | 3 | 03/02/26 | — |
| L-10 | Introduce tools | Excel, R, Python, Tableau | Demo | 1,2 | 03/02/26 | — |
| L-11 | Unit I Revision | Review + Quiz | Discussion | All | 13/02/26 | — |
| | | **UNIT II** | | | | |
| L-12 | Introduce preprocessing | Data Pre-processing Concept | Lecture | 2,4 | 17/02/26 | — |
| L-13 | Explain missing data | Handling Missing Values | Lecture + Demo | 2 | 18/02/26 | — |
| L-14 | Explain outliers | Outlier Detection | Lecture | 2 | 20/02/26 | — |
| L-15 | Data cleaning | Data Cleaning Techniques | Lab Demo | 2 | 23/02/26 | — |
| L-16 | Visualization basics | Data Visualization Concept | Lecture | 1,2 | 24/02/26 | — |
| L-17 | Tables | Data Tables | Lab | 2 | 24/02/26 | — |
| L-18 | Cross-tabulation | Pivot Tables | Lab | 2 | 26/02/26 | — |
| L-19 | Charts | Bar, Line, Pie Charts | Lab | 2 | 02/03/26 | — |
| L-20 | Advanced charts | Histogram, Scatter Plot | Lab | 2 | 03/03/26 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-21 | Dashboards | Dashboard Design | Lab | 1 | 16/03/26 | — |
| L-22 | Data modeling intro | Concept of Data Modeling | Lecture | 1,4 | 16/03/26 | — |
| L-23 | Modeling role | Role of Data Models | Lecture | 1 | 17/03/26 | — |
| L-24 | Modeling techniques | Types of Models | Lecture | 1,4 | 20/03/26 | — |
| L-25 | Unit II Review | Test / Quiz | Discussion | All | 20/03/26 | — |
| | | **UNIT III** | | | | |
| L-26 | Descriptive analytics | Meaning & Scope | Lecture | 2 | 24/03/26 | — |
| L-27 | Central tendency | Mean, Median, Mode | Lecture | 2 | 24/03/26 | — |
| L-28 | Practice CT | Excel Calculations | Lab | 2 | 30/03/26 | — |
| L-29 | Dispersion | Variance & Std. Deviation | Lecture | 2 | 30/03/26 | — |
| L-30 | Practice dispersion | Excel Functions | Lab | 2 | 30/03/26 | — |
| L-31 | Predictive analytics | Concept | Lecture | 1 | 1/04/26 | — |
| L-32 | Linear regression | Theory | Lecture | 1 | 02/04/26 | — |
| L-33 | Regression in Excel | Practical | Lab | 2 | 09/04/26 | — |
| L-34 | Multivariate regression | Theory | Lecture | 1 | 14/04/26 | — |
| L-35 | Multivariate regression | Practical | Lab | 2 | 13/04/26 | — |
| | | **UNIT IV** | | | | |
| L-36 | Data warehouse intro | Concept | Lecture | 1,4 | 16/04/26 | — |
| L-37 | ETL | Extract, Transform, Load | Lecture | 4 | 17/04/26 | — |
| L-38 | Star schema | Architecture | Lecture | 4 | 20/04/26 | — |
| L-39 | Data mining intro | Concept & Origin | Lecture | 1 | 21/04/26 | — |
| L-40 | Data mining tasks | Classification, Clustering, Association | Lecture | 1 | 22/04/26 | — |
| L-41 | Retail applications | Data Mining in Retail | Case Study | 5 | 24/04/26 | — |
| L-42 | Healthcare applications | Healthcare Analytics | Case Study | 5 | 27/04/26 | — |

Faculty

| | | | | | |
|---|---|---|---|---|---|
| L-43 | Insurance & Telecom | Industry Applications | Case Study | 5 | 27/04/26 |
| L-44 | Trends | Emerging Trends | Lecture | 6 | 29/04/26 |
| L-45 | Project guidance | Mini Project Discussion | Discussion | All | 04/05/26 |
| L-46 | Revision | Entire Course Review | Discussion | All | 05/05/26 |

**Suggested Readings:**


1. Camm, Cochran, Fry, Ohlmann, Anderson, Sweeney, Williams, Essentials of Business Analytics, Cengage Learning.

2. Albright Winston, , Business Analytics- Data Analysis-Data Analysis and Decision Making, Cengage Learning.

3. Sahil Raj, Business Analytics, Cengage Learning.

4. Prasad. R. N and Acharya S. Fundamentals of Business Analytics, Wiley India.

5. Banerjee T, Business Analytics: Text and Cases, Sage Text Publishing

6. Arben, A. Business Analytics with Management Science Models and Methods, Pearson


**Here are unit-wise digital learning resources (URLs) you can use to support teaching and student self-study for *Business Analytics*. These include online courses, tutorials, and video modules that align with your course structure:**

📌 **Unit I – Introduction to Business Analytics**

1. **Business Analytics Specialization (Coursera) – Comprehensive intro + strategy + tools.**
   🔗 https://www.coursera.org/specializations/analytics (Coursera)
2. **Introduction to Data Analytics for Business (Coursera) – Fundamental business analytics concepts.**
   🔗 https://www.coursera.org/learn/data-analytics-business (Coursera)
3. **Introduction to Business Analytics: Communicating with Data (Coursera) – Focuses on communicating analytical insights.**
   🔗 https://www.coursera.org/learn/intro-business-analytics (Coursera)

📌 **Unit II – Data Visualization & Pre-Processing**

1. **Excel Skills for Data Analytics and Visualization (suggested via Coursera resources) — While not a single dedicated link here, you can explore Excel visualization learning on Coursera through the analytics specialization above. (Coursera)**

2. Study.com – Business Intelligence & Data Mining — Unit includes visualization topics with video modules & quizzes.
   🔗 https://study.com/academy/course/analytics-102-business-intelligence-data-mining.html (study.com)
3. Data Analytics and Visualization – SAR Learning Center – Free downloadable content on data preprocessing and visualization topics.
   🔗 https://sarlearningcenter.wordpress.com/data-analytics-and-visualization/ (SAR Learning Center)

📌 Unit III – Types of Analytics (Descriptive/Predictive)

1. Coursera Analytics Specialization (Regression & Predictive Modules) – Regression & predictive modeling topics included in the larger specialization modules.
   🔗 https://www.coursera.org/specializations/analytics (Coursera)
2. Study.com – Predictive & Descriptive Analytics Content – Part of their BI & analytics video lessons, including forecasting and regression explanation.
   🔗 https://study.com/academy/course/analytics-102-business-intelligence-data-mining.html (study.com)

📌 Unit IV – Data Warehousing & Data Mining

1. Study.com – BI & Data Mining Lessons – Includes modules on data mining, modeling, warehousing concepts, and quizzes.
   🔗 https://study.com/academy/course/analytics-102-business-intelligence-data-mining.html (study.com)
2. edX – Business Analytics Courses (Search home page) – Platform with multiple analytics courses including data warehousing & mining topics you can filter.
   🔗 https://www.edx.org/learn/business-analytics (edX)

🔧 Additional Tools & Resources (Useful for All Units)

- KNIME Analytics Platform (Free software + tutorials) – Useful for data preprocessing, visualization, and analytics with GUI workflows.
  🔗 https://www.knime.com/ (Wikipedia)
- Analytics Vidhya (Community + Knowledge Base) – Forums, tutorials, examples on analytics, data mining & predictive modeling.
  🔗 https://cbap.analyticsvidhya.com/ (cbap.analyticsvidhya.com)
- Udemy – Business Analytics Courses – Paid but structured courses covering tools and visualization.
  🔗 https://www.udemy.com/course/business-analytics-using-data-science/ (Udemy)

💡 How to Use These Resources

| Unit | Recommended Types of Content |
| --- | --- |
| I | Concept videos & intro courses |

| Unit | Recommended Types of Content |
|---|---|
| II | Visualization tutorials + Excel labs |
| III | Predictive analytics tutorials + regression examples |
| IV | Data mining & warehousing lessons |

Many platforms (Coursera/edX) include assignments & projects alongside videos, which can be excellent for in-class discussions or flipped classroom models.

Name & Signature of Faculty

Deputy Director

Director

# MBS COLLEGE

**Affiliated to GGSIPU and Approved by CoA & AICTE**
**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

**Lesson Plan for Sales and Channel Management**

| Programme: BBA | Semester: IV | Paper Code: 210 | Academic Year: 2025-2026 |
|---|---|---|---|

No of hours allotted to complete the syllabi*: 60 (mentioned in the syllabus)

**Course Objective: (mentioned in the syllabus)**

- **Understanding the various roles & responsibilities of a manager related to sales management**
- **Explore the key areas related to the organization, selection, and development of effective sales force**
- **Examine and analyse the role and functions of distribution channels and intermediaries**
- **Integrate sales strategies with distribution logistics, and addressing ethical and legal issues**

**CO PO mapping: (mentioned in the syllabus)**

| Program level Outcomes | | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|---|
| CO1 | Understanding the various roles & responsibilities of a manager related to sales management | 3 | 2 | 3 | 1 | 1 |
| CO2 | Explore the key areas related to the organization, selection, and development of effective sales force | 3 | 3 | 3 | 3 | 3 |
| CO3 | Examine and analyze the role and functions of distribution channels and intermediaries | 2 | 3 | 3 | 3 | 3 |
| CO4 | Integrate sales strategies with distribution logistics, and addressing ethical and legal issues | 2 | 3 | 3 | 3 | 3 |
| AVG | | 2.5 | 2.75 | 3 | 2.5 | 2.5 |

# MBS COLLEGE

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| Lecture & PPT - No | Lecture & PPT Objective | Topic/ Module Details with subtopics | Methodology Lecture /PPT/Assignment/Case Study | Reference /text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | | **UNIT I** | | | | |
| L-1 | To discuss syllabus and provide a brief outline of the topics of unit I. | Overview of unit I | Lecture & PPT | $R_1$ | 20/1/26 | — |
| L-2 | To discuss the definitions and concepts of sales management | Definition, evolution and scope of sales management | Lecture & PPT | $R_2$ | 21/1/26 | — |
| L-3 | To understand the importance of sales management | Importance of sales Management | Lecture & PPT | $R_1$ | 23/1/26 | — |
| L-4 | To understand types of sales managers | Types of sales managers | Lecture & PPT | $T_1$ | 27/1/26 | — |
| L-5 | To explain the concept of personal selling and discuss major theories related to personal selling. | Personal Selling-Theories | Lecture & PPT | $T_2$ | 29/1/26 | — |
| L-6 | To analyse the psychological aspects of selling and their impact on buyer behavior. | Psychology in Selling | Lecture & PPT | $T_2$ | 2/2/26 | — |
| L-7 | To explain production planning & control | Buying Situations | Lecture & PPT | $T_1$ | 3/2/26 | — |
| L-8 | To explain the stages of the sales process and their practical relevance in selling activities. | Sales Process | Lecture & PPT | $T_2$ | 3/2/26 | — |
| L-9 | To introduce the concept of sales forecasting and explain its importance in sales planning. | Sales Forecasting | Lecture & PPT | $R_1$ | 13/2/26 | — |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-10 | To explain the concept of sales territory design and factors influencing territory allocation. | Sales Territory Design | Lecture & PPT | $T_1$ | 17/2/26 | — |
| L-11 | To evaluate students' understanding of Unit I through a unit test. | Unit test I | Lecture & PPT | $T_1$ | 18/2/26 | — |
| | | **UNIT II** | | | | |
| L-12 | To provide an overview of Unit II and introduce key concepts of sales force management. | Overview of Unit II | Lecture & PPT | $R_2$ | 20/2/26 | — |
| L-13 | To explain the concept, objectives, and importance of sales force management. | Sales Force Management | Lecture & PPT | $R_1$ | 23/2/26 | — |
| L-14 | To discuss various types of sales organization structures and their suitability in different situations. | Sales Organization structure | Lecture & PPT | $R_1$ | 24/2/26 | — |
| L-15 | To explain methods for determining sales force size and factors affecting sales force requirements. | Sales Force Size | Lecture & PPT | $R_2$ | 26/2/26 | — |
| L-16 | To understand the recruitment and selection process of an effective sales force. | Recruitment, Selection of Sales force | Lecture & PPT | $T_1$ | 2/3/26 | — |
| L-17 | To explain the importance of training, motivation, and compensation of sales personnel. | Training, motivation and Compensation of Sales Force | Lecture & PPT | $T_2$ | 2/3/26 | — |
| L-18 | To discuss sales quotas and sales contests as tools for motivating the sales force. | Sales Quotas and Contests | Lecture & PPT | $T_3$ | 5/3/26 | — |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-19 | To evaluate different methods of assessing sales force performance. | Evaluation of Sales performance | Lecture & PPT | | 16/3/26 | — |
| | | **UNIT III** | | | | |
| L-20 | To summarize key concepts of Unit III and assess learning outcomes. | Overview of unit III | Lecture & PPT | $R_1$ | 16/3/26 | — |
| L-21 | To introduce the concept of distribution channels and explain their role in the marketing system. | Distribution Channels and Institutions | Lecture & PPT | $R_2$ | 17/3/26 | — |
| L-22 | To explain the functions performed by intermediaries in distribution channels. | Functions of Intermediaries | Lecture & PPT | $T_3$ | 20/3/26 | — |
| L-23 | To analyze the types and role of channel intermediaries in India for consumer and industrial products. | Types and Role of Channel Intermediaries in India for Consumer and Industrial products | Lecture & PPT | $T_2$ | 24/3/26 | — |
| L-24 | To explain the concept, types, and importance of retailing in the distribution system. | Types of channel intermediary | Lecture & PPT | $T_1$ | 30/3/26 | — |
| L-25 | To discuss retail strategies, performance measures, and the retail scenario in India. | Role of channel intermediary | Lecture & PPT | $T_2$ | 30/3/26 | — |
| L-26 | To explain the features and classification of wholesaling. | Wholesaling - Features | Lecture & PPT | $T_3$ | 30/3/26 | — |
| L-27 | To analyse key wholesaling decisions related to location, assortment, and services. | Wholesaling - Classification, Decision | Lecture & PPT | $R_1$ | 2/4/26 | — |
| L-28 | To discuss trends and future prospects of wholesaling in India. | Wholesaling - Trends and Future Scenario | Lecture & PPT | $R_2$ | 9/4/26 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-29 | To assess students' understanding of Unit III through a unit test. | Unit test 2 | Lecture & PPT | $T_2$ | 14/4/26 | — |
| | | **UNIT IV** | | | | |
| L-30 | To provide an overview of Unit IV and introduce logistics and supply chain concepts. | Overview of Unit IV | Lecture & PPT | $R_3$ | 15/4/26 | — |
| L-31 | To explain the concept of distribution channel design and factors affecting channel selection. | Distribution Channel Design | Lecture & PPT | $R_1$ | 16/4/26 | — |
| L-32 | To analyze channel strategy and design decisions in distribution management. | Management and Logistics: Channel Strategy and Design | Lecture & PPT | $R_2$ | 17/10/26 | — |
| L-33 | To explain the process of selection, motivation, and evaluation of channel intermediaries. | Selection, Motivation and Evaluation of Intermediaries | Lecture & PPT | $T_1$ | 20/4/26 | — |
| L-34 | To discuss channel dynamics, relationships, and methods of managing channel conflict. | Managing Channel Dynamics, Relationships and Channel Conflict | Lecture & PPT | $T_2$ | 21/4/26 | — |
| L-35 | To explain the objectives and decision areas of the physical distribution system. | Physical Distribution System -Objectives and Decision Areas | Lecture & PPT | $T_3$ | 22/4/26 | — |
| L-36 | To introduce the concept of logistics and supply chain management and their strategic importance. | Introduction to Logistics and Supply Chain Management | Lecture & PPT | $R_1$ | 22/4/26 | — |
| L-37 | To explain green supply chain management and the role of e-commerce in modern supply chains. | Green Supply Chain & E-commerce | Lecture & PPT | $R_2$ | 27/4/26 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-38 | To analyse the integration of sales and distribution strategies for organizational effectiveness. | Integration of Sales and Distribution Strategy | Discussion | $R_3$ | 24/4/21 | — |
| L-39 | To sensitize students to ethical and legal issues in sales and distribution management in the Indian context. | Logistics for sustainability and digital trends Ethical and Legal Issues in Sales and Distribution Management in Indian context. | Lecture & PPT | $R_1$ | 27/4/21 | — |
| L-40 | To assess students' understanding of Unit IV through a unit test. | Unit Test 3 | Lecture & PPT | $R_2$ | 27/4/21 | — |
| L-41 | Discussing about the tests conducted. | Discussing Tests. | Lecture & PPT | $R_3$ | 29/4/21 | — |
| L-42 | To clarify students' doubts and reinforce key concepts of sales and supply chain management. | Doubt solving | Lecture & PPT | $R_1$ | 29/4/21 | — |
| L-43 | To revise major topics of Units I and II for comprehensive understanding. | Revision | Lecture & PPT | $R_2$ | 4/5/21 | — |
| L-44 | To revise major topics of Units III and IV for examination preparation. | Revision | Lecture & PPT | $R_3$ | 4/5/21 | — |
| L-45 | To consolidate the entire syllabus through discussion and problem-solving. | Revision | Lecture & PPT | $T_1$ | 5/5/21 | — |

**TEXT BOOKS:**


1. Production and Operations Management - Aswathappa K., Shridhara Bhat K. (Himalaya Publishing House)
2. Rosenbloom, Bert, Marketing Channels: A Management View, Cengage Learning.
3. Jobber, David and Lancaster, Geoffery, Selling and Sales Management, Pearson Education
4. Tanner Jr., J.F., Honeycutt Jr., E.D. and Erfimeyer, R.C., Sales Management:, Pearson Education
5. Panda, T.K. and Sahadev, S, Sales and Distribution Management, Oxford University Press.
6. Havaldar, K K. and Cavale, VM., Sales and Distribution Management: Text and Cases, Tata McGraw Hill.


***References:***


1. Havaldar, K. K. & Cavale, V. M. *Sales and Distribution Management: Text and Cases* Tata McGraw Hill.
2. Rosenbloom, Bert *Marketing Channels: A Management View* Cengage Learning.
3. Panda, T. K. & Sahadev, S. *Sales and Distribution Management* Oxford University Press.
4. Tanner Jr., J. F., Honeycutt Jr., E. D. & Erffmeyer, R. C. *Sales Management* Pearson Education.


**Subject Enrichment Activity**: (1 subject enrichment activity need to be mentioned along with its Execution Plan)

Subject Faculty | Deputy Director | Director

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**Lesson Plan for Opportunity and Feasibility Analysis**

| **Programme: BBA** | **Semester: IV** | **Paper Code: 216** | **Academic Year: 2025-2026** |
|---|---|---|---|

No of hours allotted to complete the syllabi*: 60 (mentioned in the syllabus)

**Course Objective: (mentioned in the syllabus)**

- **This course aims to develop the ability to identify, evaluate, and analyze viable business opportunities and assess their feasibility in both domestic and international contexts.**

## Course Outcomes (COs)

- **CO1:** Understand entrepreneurial opportunities and niches for new ventures
- **CO2:** Apply creativity and innovation techniques to generate and refine business ideas
- **CO3:** Analyze the feasibility of business ideas across product, market, organizational, and financial dimensions
- **CO4:** Evaluate domestic and international business opportunities by assessing political, economic, and cultural environments

**CO PO mapping: (mentioned in the syllabus)**

| Lecture-No | Lecture Objective | Topic/ Module Details with subtopics | Methodology Lecture/PPT/ Assignment/Case Study | Reference /text book | Date on which delivered | PD Remark |
|---|---|---|---|---|---|---|
| L-1 | To provide a brief outline of the topics of unit I. | Overview of unit I | Lecture | R1 | 19/2/26 | — |
| L-2 | To discuss the definitions and concepts of opportunities and ideas | Definition of opportunities and ideas | Lecture | R3 | 20/2/26 | — |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-3 | To clarify how to build gap | Difference Between opportunity and opportunity gap | Lecture | R3 | 21/2/26 | - |
| L-4 | To explore the windows of opportunity | Concept of windows opportunity | Lecture | R3 | 22/2/26 | — |
| L-5 | To explain the different ways of opportunity identifications | Nature & Scope of opportunity identifications | Lecture | R1 | 27/2/26 | — |
| L-6 | To explain different types of observing trends | Classification of observing trends | Lecture | R1 | 28/2/26 | — |
| L-7 | To explain solving a problem | Problem solving process | Lecture | R1 | 29/2/26 | — |
| L-8 | To throw light upon market challenges | Role and challenges of findings gap in market places | Lecture | R1 | 3/3/26 | — |
| L-9 | To provide knowledge of idea, opportunity and gap | Idea, opportunity and gap | Lecture | R1 | 10/2/26 | — |
| L-10 | To explain the personal characteristics that contribute to recognizing opportunities | Recognizing Opportunities | Lecture | R1 | 13/2/26 | — |
| L-11 | To assess the learning of prior industry experience | Experiental learning | Lecture | R2 | 16/2/26 | — |
| L-12 | To discuss the importance of cognitive factors | To discuss the importance of cognitive factors | Lecture | R2 | 17/2/26. | — |
| L-13 | To discuss the social networks | To discuss the social networks | Lecture | R2 | 18/2/26 | — |
| L-14 | To evaluate the determinants of opportunity gap | To discuss about opportunity gap | Lecture | R2 | 19/2/26 | — |
| L-15 | Case study of Ninzacart | Case study Ninzacart | Lecture | R2 | 23/2/26 | — |
| L-16 | Introduction -Creativity and Innovation – UNIT-2 | Creativity and Innovation | Lecture | R3 | 24/2/26 | — |
| L-17 | To discuss the sources of new ideas | Sources of new idea | Lecture | R3 | 25/2/26 | — |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-18 | To explain different methods of generating ideas | Methods of generating new ideas | Lecture | R3 | 26/2/26 | — |
| L-19 | To know the factors of focus groups | Factors affecting focus groups | Lecture | R3 | 5/3/26 | GD |
| L-20 | To teach the concept of brainstorming | Brainstorming | Lecture | R1 | 11/3/26 | |
| L-21 | To teach the concept of brain writing | Brain Writing | Lecture | R1 | 11/3/26. | — |
| L-22 | To explain the Gordon Method | Gordon Method | Lecture | R1 | 12/3/26 | — |
| L-23 | To demonstrate checklist method, free association | Checklist and free association method | Lecture | R1 | 16/3/26 | — |
| L-24 | Classification of new Product | Types and basis of product classifications | Lecture | R1 | 17/3/26 | — |
| L-25 | Opportunity recognition | E-commerce creatively | Lecture | R1 | 18/3/26 | — |
| L-26 | UNIT-3 To introduce feasibility analysis | Meaning & importance of feasibility | Lecture | R3 | 23/3/26 | — |
| L-27 | To explain product feasibility | Product/service feasibility | Lecture | R3 | 30/3/26 | — |
| L-28 | To analyze market feasibility | Industry & target market analysis | Lecture | R3 | 01/4/26 | — |
| L-29 | To explain organizational feasibility | Organizational feasibility | Lecture | R3 | 02/4/26 | — |
| L-30 | To analyze financial feasibility | Financial feasibility | Lecture | R3 | 13/4/26. | — |
| L-31 | To integrate feasibility areas | Four areas of feasibility | Lecture | R3 | 15/4/26 | — |
| L-32 | To use online tools | Online tools for feasibility analysis | Lecture | R3 | 16/4/26 | — |
| L-33 | To interpret feasibility results | Decision-making based on feasibility | Lecture | R3 | 17/4/26 | — |
| L-34 | To apply feasibility concepts | Feasibility case study | Lecture | R1 | 20/4/26 | — |
| L-35 | To prepare feasibility report | Structure of feasibility report | Lecture | R1 | 21/4/26 | — |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-36 | UNIT-4 To introduce opportunity assessment | Opportunity recognition & assessment plan | Lecture | R1 | 22/4/26 | — |
| L-37 | To identify information sources | Sources of opportunity information | Lecture | R3 | 28/4/26 | — |
| L-38 | To compare domestic vs international business | Domestic vs international entrepreneurship | Lecture | R3 | 29/4/26 | — |
| L-38 | To analyze political environment | Political & policy environment | Lecture | R3 | 29/4/26 | — |
| L-39 | To analyze economic environment | Economic & taxation factors | Lecture | R3 | 04/5/26 | — |
| L-40 | To understand trade & trends | Trade, trends & psychographics | Lecture | R3 | 5/5/26 | — |
| L-41 | To understand culture | Cultural environment | Lecture | R3 | 5/5/26 | — |
| L-42 | To analyze distribution systems | Global distribution systems | Lecture | R3 | 5/5/26 | — |
| L-43 | To evaluate motivation to go global | Motivation & strategic effects | Lecture | R3 | 7/5/26 | — |
| L-44 | To apply concepts | International opportunity case study | Lecture | R3 | 7/5/26 | — |

***References:***


1. Barringer, B. R., & Ireland, R. D., *Entrepreneurship: Successfully Launching New Ventures*, Pearson
2. Hisrich, R. D., Peters, M. P., Shepherd, D. A., & Sinha, S., *Entrepreneurship*, McGraw Hill
3. Clydesdale, G., *Entrepreneurial Opportunity: The Right Place at the Right Time*, Routledge


Subject Faculty HOD Deputy Director Director

# MBS COLLEGE, DWARKA

## LESSON PLAN – CORPORATE COMMUNICATION

| | |
|---|---|
| **Programme** | BBA \| Fourth Semester |
| **Paper Code** | BA(JMC)208 / MDC |
| **Course** | Corporate Communication |
| **Lectures / Week** | 3 |
| **Tutorial** | 0 |
| **Credits** | 3 |
| **Evaluation** | Internal: 40 Marks \| External: 60 Marks \| Total: 100 Marks |
| **Academic Basis** | Syllabus effective from academic years 2025–2026 for the specified batches |

### Course Objectives

- Define corporate and Corporate Communication.
- Describe the shift from Public Relations (PR) to Corporate Communication.
- Understand the Indian corporate environment.
- Utilize knowledge gained for Corporate Branding.

### Lecture-wise Lesson Plan

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| **Unit I – Introduction to Corporate Communication** | | | | | |
| 1 | To enable students to define Corporate Communication, explain its concept and scope, and distinguish it from Public Relations. | Interactive lecture; concept map; students identify examples of corporate communication. | Cornelissen – Corporate Communication; Jethwaney – Corporate Communication | 20/1/26 | — |
| 2 | To help students trace the evolution from PR to Corporate Communication and explain the changing communication needs of organizations. | Timeline activity; small-group discussion on reasons for the shift. | Cutlip, Center & Broom – Effective Public Relations; Cornelissen – Corporate Communication | 21/1/26 | — |
| 3 | To familiarize students with the structure and forms of Corporate Communication in organizations. | Lecture + organization communication mapping activity. | Argenti – Corporate Communication; Jethwaney – Corporate Communication | 23/1/26 | — |
| 4 | To enable students to distinguish Monolithic, Endorsed and Branded approaches and use them to classify corporate brands. | Brand architecture comparison; students classify sample corporate brands. | Cornelissen – Corporate Communication; Kapferer – The New Strategic Brand Management | 29/1/26 | — |

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| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| **Unit II – Indian Corporate Environment** | | | | | |
| 5 | To help students describe the Indian corporate sector – its definition, structure, classification and role in the economy. | Lecture; sector-mapping activity using familiar Indian corporations. | Jethwaney – Corporate Communication; Fernando – Corporate Governance | 2/2/26 | - |
| 6 | To enable students to explain hierarchies, communication flow and decision-making in Indian companies, and the role of CSR in India. | Organization-chart exercise; CSR discussion. | Jethwaney – Corporate Communication; Cornelissen – Corporate Communication | 3/2/26 | — |
| 7 | To enable students to identify the role of media in the corporate environment and its interaction with corporations. | Media clipping analysis; discussion of corporate–media interaction. | Jethwaney – Corporate Communication; Cutlip, Center & Broom – Effective Public Relations | 13/2/26 | — |
| 8 | To make students aware of corporate governance concerns and scandals in India, and the roles of regulators – SEBI, MCA and RBI. | Case-based lecture; groups map regulator–corporation relationships. | Fernando – Corporate Governance; SEBI, MCA and RBI official publications | 17/2/26 | — |
| **Unit III – Communication Strategy** | | | | | |
| 9 | To enable students to draft the key elements of a Corporate Communication strategy. | Strategy-building workshop using a hypothetical company; peer feedback. | Cornelissen – Corporate Communication; Argenti – Corporate Communication | 20/2/26 | |
| 10 | To help students differentiate vertical, horizontal and lateral communication perspectives within an organization. | Role play: communication flow inside an organization. | Argenti – Corporate Communication; Jethwaney – Corporate Communication | 23/2/26 | Specify the Role play |
| 11 | To familiarize students with the concept and steps of a Corporate Identity Audit. | Guided audit of a selected organization's public identity; mini-audit submission. | Cornelissen – Corporate Communication; Olins – Corporate Identity | 2/3/26 | — |
| 12 | To enable students to explain the concept, objectives and functions of corporate advertising. | Advertisement analysis; short student presentation. | Jethwaney – Corporate Communication; Argenti – Corporate Communication | 16/3/26 | — |
| **Unit IV – Crisis, Internal & External Communication, Ethics and Media Relations** | | | | | |
| 13 | To enable students to explain crisis-management principles and assess responses in the Infosys and Nestlé Maggi cases. | Case-study method; crisis timeline and response evaluation. | Coombs – Ongoing Crisis Communication; Cornelissen – Corporate Communication | 30/3/26 | Case? |
| 14 | To familiarize students with tools of internal and external communication and help them select suitable tools for given situations. | Tool-matching activity; role play for internal/external messages. | Argenti – Corporate Communication; Jethwaney – Corporate Communication | 9/4/26 | — |

| Lecture No. | Lecture Objectives | Methodology | Reference Books | Date of Delivery | PD Remarks |
|---|---|---|---|---|---|
| 15 | To enable students to apply guidelines and ethical principles to corporate communication situations. | Ethical dilemma scenarios; group discussion. | Seitel – The Practice of Public Relations; Jethwaney – Corporate Communication | 16/4/26 | — |
| 16 | To help students identify media-relations tools and techniques and outline a media monitoring and research process. | Press/media simulation; monitoring exercise using sample coverage. | Cutlip, Center & Broom – Effective Public Relations; Jethwaney – Corporate Communication | 20/4/26 | — |

**Reference Books**


- Cornelissen, J. – Corporate Communication: A Guide to Theory and Practice, Sage.
- Argenti, P. A. – Corporate Communication, McGraw-Hill.
- Jethwaney, J. – Corporate Communication: Principles and Practice, Oxford University Press.
- Cutlip, S. M., Center, A. H. & Broom, G. M. – Effective Public Relations, Pearson.
- Fernando, A. C. – Corporate Governance: Principles, Policies and Practices, Pearson.
- Kapferer, J.-N. – The New Strategic Brand Management, Kogan Page.
- Olins, W. – Corporate Identity, Thames & Hudson.
- Coombs, W. T. – Ongoing Crisis Communication, Sage.
- Seitel, F. P. – The Practice of Public Relations, Pearson.


*Note: The uploaded plan did not list reference books; the above are standard texts suggested per lecture. Please replace with the prescribed syllabus readings if different. The lecture sequence can be distributed across the academic calendar and the 3-lectures-per-week structure.*

Dr. Nagender Nehra

**FACULTY NAME AND SIGN**

**HOD / PD NAME AND SIGN**

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# MBS College

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## LESSON PLANS (2025-26)

### BCA SEM-I

| S.No. | Course Title | Course Code |
|---|---|---|
| 1. | Discrete Mathematics | BCA-101 |
| 2. | Programming using C Language | BCA-103 |
| 3. | Fundamentals of Computers and IT (FIT) | BCA-105 |
| 4. | Web Technologies | BCA-107 |
| 5. | Technical Communication | BCA-109 |
| 6. | Human Values and Ethics | BBA-111 |

### BCA SEM-II

| S.No. | Course Title | Course Code |
|---|---|---|
| 1. | Applied Mathematics | BCA-102 |
| 2. | Web Based Programming | BCA-104 |
| 3. | Data Structures and Algorithms using C | BCA-106 |
| 4. | Database Management System | BCA-108 |
| 5. | Environmental Studies | BBA-110 |



# MBS College, Dwarka

## Lesson Plan for Discrete Math

| Programme: BCA | Semester: 1 | Paper Code: BCA-101 | Academic Year: 2025-26 |
|---|---|---|---|

**Course Objective: To enhance the mathematical thinking among students.**

**Course Outcomes: Student becomes well knowledgeable about the mathematical aspects of computer and their theoretical component.**

**COURSE OUTCOMES (COs):**

After completion of this course, the learners will be able to:-

| CO # | Detailed Statement of the CO |
|---|---|
| CO1 | Understand the basics conceptual math and relations. |
| CO2 | Understand and apply methods of proof and partial order relation |
| CO3 | Compare and design various graphs techniques. |
| CO4 | Appraise and determine the correct logic and solutions for any given real-world problem. |

| Course Outcomes | Program Outcomes (Scale – 1:very low, 2: low, 3:medium, 4:high) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | O10 |
| CO1 | 3 | 2 | - | - | - | - | 2 | 1 | 2 | - |
| CO2 | 4 | 3 | - | - | - | - | - | - | - | - |
| CO3 | - | 4 | 3 | 2 | - | 3 | - | 3 | 2 | 3 |
| CO4 | 3 | 3 | 4 | 4 | - | 3 | 3 | - | 3 | 2 |

| L.No. | Topic / Module Detail with Subtopics | Unit | Learning Objectives | Reference / Text Books | Lecture Date | Sign of Faculty |
|---|---|---|---|---|---|---|
| 1 | What is Set and their Use? Introduction of Set | Unit-1 | Define and explain the basic concept and importance of sets in computing | S K Sarkar, J.P Singh | 18-8-25 | Prabhat Dixit |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2 | Examples of Set; Types of sets and real-world applications | Unit -1 | Identify and classify types of sets with real-world relevance | J.P Singh Discrete mathematics | 19-8-25 | Pratibha Bhat |
| 3 | Subset; Proper subset, Improper subset, Power set | Unit -1 | Explain the concept of subsets and power sets and apply it in set analysis | S K Sarkar, J.P Singh | 20-8-25 | Pratibha Bhat |
| 4 | Algebra of Sets; Union, Intersection, Difference, Complement | Unit -1 | Apply operations on sets and analyze their interrelation through algebraic expressions | S K Sarkar, J.P Singh | 22-8-25 | Pratibha Bhat |
| 5 | Union, Intersection and Other Operations; Venn Diagrams | Unit -1 | Construct Venn diagrams and solve problems involving multiple set operations | S K Sarkar, J.P Singh | 25-8-25 | Pratibha Bhat |
| 6 | Cartesian Product; Ordered pairs and applications | Unit -1 | Understand the Cartesian product and use it in relational modeling | S K Sarkar, J.P Singh | 26-8-25 | Pratibha Bhat |
| 7 | Cardinality and Size of Set; Finite vs infinite sets | Unit -1 | Determine cardinality and compare sizes of sets | S K Sarkar, J.P Singh, | 27-8-25 | Pratibha Bhat |

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|---|---|---|---|---|---|---|
| 8 | Relation and Equivalence ; Reflexive, Symmetric, Transitive | Unit -1 | Analyze types of relations and determine equivalence | S K Sarkar, J.P Singh | 1-9-25 | Pratibha Bhat |
| 9 | Partial Order Relation; Poset basics | Unit -1 | Understand and identify partial order relations in real-world contexts | S K Sarkar, J.P Singh | 2-9-25 | Pratibha Bhat |
| 10 | Functions; Domain, range, hashing, recursive functions | Unit -1 | Understand and apply function-related concepts to computer-based logic | S K Sarkar, J.P Singh | 3-9-25 | Pratibha Bhat |
| 11 | Introduction to Logic; Notation and connectives in logic | Unit -1 | Familiarize with logical statements, connectives and notation used in logic | S K Sarkar, J.P Singh | 4-9-25<br>8-9-25 | Pratibha Bhat |
| 12 | Conjunction, Disjunction, Negation; Truth tables | Unit -1 | Construct truth tables and evaluate compound logical statements | S K Sarkar, J.P Singh | 9-9-25 | Pratibha Bhat |
| 13 | Logical Equivalence ; Tautology, contradiction , contingency | Unit -1 | Evaluate logical equivalence using laws of logic | S K Sarkar, J.P Singh | 10-9-25 | Pratibha Bhat |

| | | | | | | |
|---|---|---|---|---|---|---|
| 14 | Conditional Propositions ; Implications, contrapositive | Unit -1 | Analyze arguments and draw valid logical inferences | S K Sarkar, J.P Singh | 11-9-25 | Pratibha Pal |
| 15 | Algebra of prepositions, logical implications, logical equivalence | Unit -1 | Analyzing truth table for equalizing two tables | S K Sarkar, J.P Singh | 12-9-25 | Pratibha Pal |
| 16 | Predicates; Universal & existential quantifiers, | Unit -1 | Explain predicate logic and its use in formulating mathematical statements | S K Sarkar, J.P Singh | 15-9-25 | Pratibha Pal |
| 17 | Partial Order Relation (Revisited); Refinement from Unit 2 | Unit - 2 | Classify and verify partial orders using real examples | S K Sarkar, J.P Singh | 16-9-25 | Pratibha Pal |
| 18 | Poset; Partially ordered sets, examples | Unit - 2 | Identify posets and represent them for given sets and relations | S K Sarkar, J.P Singh | 18-9-25 | Pratibha Pal |
| 19 | Problem based on Poset | Unit - 2 | Solve structured problems involving posets and ordering | S K Sarkar, J.P Singh | 19-9-25 | Pratibha Pal |

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|---|---|---|---|---|---|---|
| 20 | Hasse Diagram; Graphical representation of posets | Unit - 2 | Construct and interpret Hasse diagrams | S K Sarkar, J.P Singh | 22-9-25 | Practice Ppt |
| 21 | Chain in Poset | Unit - 2 | Analyze chains and antichains within posets | S K Sarkar, J.P Singh | 23-9-25 | Practice Ppt |
| 22 | Maximal and Minimal Elements | Unit - 2 | Identify maximal and minimal elements from posets | S K Sarkar, J.P Singh | 3-10-25 | Practice Ppt |
| 23 | GLB and LUB; Greatest lower bound and least upper bound | Unit - 2 | Derive GLB and LUB from lattice structures | S K Sarkar, J.P Singh | 6-10-25 | Practice Ppt |
| 24 | Lattice and Algebraic System; Lattice properties | Unit - 2 | Define and classify algebraic systems in lattice theory | S K Sarkar, J.P Singh | 9-10-25 | Practice Ppt |
| 25 | Principle of Duality, , Elementary properties of lattices | Unit - 2 | Concept of Duality in Boolean algebra and lattices | S K Sarkar, J.P Singh | 10-10-25 | Practice Ppt |
| 26 | Atoms, Sub Lattices, Bounded Lattice | Unit -2 | Identifying Atoms, learning application of Sub & bounded lattices | S K Sarkar, J.P Singh | 13-10-25 | Practice Ppt |
| 27 | Distributed & | Unit -2 | Understanding to differentiate between | S K Sarkar, J.P Singh | 14-10-25 | Practice Ppt |

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|---|---|---|---|---|---|---|
| | Complemented lattice | | distributive & non distributive lattices | | | |
| 28 | Isomorphic lattice & Boolean Lattice | Unit -2 | Concept of isomorphism & significance in comparing lattice structures | S K Sarkar, J.P Singh | 16-10-25 | Prabha Pal |
| 29 | Introduction to Permutations and Combinations | Unit -3 | Define factorial, permutation, and combination with use cases | S K Sarkar, J.P Singh | 17-10-25 | Prabha Pal |
| 30 | Circular and Restricted Permutations | Unit -3 | Solve advanced problems involving restrictions and arrangements | S K Sarkar, J.P Singh | 28-10-25 | Prabha Pal |
| 31 | Combinations in Various Scenarios | Unit -3 | Apply combinations in different real-world settings | S K Sarkar, J.P Singh | 29-10-25 | Prabha Pal |
| 32 | Binomial Theorem and Use | Unit -3 | Understand and expand binomial expressions using binomial theorem | S K Sarkar, J.P Singh | 30-10-25 | Prabha Pal |
| 33 | Problems Based on Binomial Theorem | Unit -3 | Solve diverse numerical problems using binomial expansions | S K Sarkar, J.P Singh | 31-10-25 | Prabha Pal |
| 34 | Introduction to Recurrence Relations | Unit -3 | Define and identify recurrence relations by order and degree | S K Sarkar, J.P Singh | 7-11-25 | Prabha Pal |
| 35 | Homogeneous and Non-Homogeneous Recurrence | Unit -3 | Formulate and solve recurrence relations | S K Sarkar, J.P Singh | 10-11-25 | Prabha Pal |

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|---|---|---|---|---|---|---|
| | Relations | | | | | |
| 36 | Solution of Recurrence Relations | Unit -3 | Solve and simplify linear recurrence relations | S K Sarkar, J.P Singh | 11-11-25 | Pratibha Pal |
| 37 | Representation of Graphs | Unit - 4 | Illustrate adjacency matrix, incidence matrix, and list representation of graphs | R. Chadha BCA Mathematics | 13-11-25 | Pratibha Pal |
| 38 | Degree of Vertices and Types of Graphs | Unit - 4 | Analyze degrees, special graphs (complete, null, regular), and directed graphs | S K Sarkar, J.P Singh | 14-11-25 | Pratibha Pal |
| 39 | Isomorphism and Subgraphs | Unit - 4 | Determine graph isomorphism and construct subgraphs | S K Sarkar, J.P Singh | 17-11-25 | Pratibha Pal |
| 40 | Walk, Path, Cycle, and Connectedness | Unit - 4 | Understand the definitions and relationships between walks, paths, cycles, components | S K Sarkar, J.P Singh | 18-11-25 | Pratibha Pal |
| 41 | Eulerian and Hamiltonian Graphs – Introduction | Unit - 4 | Define Euler and Hamilton paths and their necessary conditions | S K Sarkar, J.P Singh | 21-11-25 | Pratibha Pal |
| 42 | Eulerian and Hamiltonian Graphs – Conditions & Proof | Unit - 4 | Apply Euler's and Hamilton's theorems to check paths and cycles | S K Sarkar, J.P Singh | 26-11-25 | Pratibha Pal |
| 43 | Floyd's & Wasrshall Algorithms | Unit - 4 | Understanding the application of shortest path on | S K Sarkar, J.P Singh | 26-11-25 | Pratibha Pal |

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|---|---|---|---|---|---|---|
| | | | graph | | | |
| 44 | Graph Coloring – Introduction | Unit - 4 | Introduce the concept of chromatic number and graph coloring rules | S K Sarkar, J.P Singh | 1-12-25 | Pratiba Bhat |
| 45 | Graph Coloring – Applications | Unit - 4 | Apply coloring techniques to scheduling, map coloring, and register allocation | S K Sarkar, J.P Singh | 4-12-25 | Pratiba Bhat |
| 46 | Euler Path, Cycle and Walk, Hamiltonian Walk (Examples) | Unit - 4 | Solve practical problems on paths and cycles in graphs | S K Sarkar, J.P Singh | 4-12-25 | Pratiba Bhat |
| 47 | Revision of Entire Syllabus | | Recap key concepts from Units 1–4 using integrated problem-solving | S K Sarkar, J.P Singh | 5-12-25 | Pratiba Bhat |

**Reference /Text book:**
**T1. J.P Singh Discrete mathematics**
**T2. S K Sarkar, Discrete Mathematics**
**T3. R. Chadha BCA Mathematics**

Pratiba Bhat
DR. PRATIBA BHAT

**Name & Signature of Faculty** **HOD** **Director**

# MBS COLLEGE
## SCHOOL OF COMPUTER APPLICATIONS

**Lesson Plan Following Outcome-Based Education and Innovative Teaching Pedagogy**

| | | |
|---|---|---|
| **Programme: BCA Semester: I** | **Paper ID: 020103** | **Paper Code: BCA 103** |
| **Subject: Programming Using C Language** | | **Academic Year: 2025-26** |

| CO No. | Course Outcome Description | Bloom's Taxonomy Level (BTL) | Related POs |
|---|---|---|---|
| CO1 | Explain the basic structure and syntax of C programs. | BTL1 (Remember), BTL2 (Understand) | PO1, PO2 |
| CO2 | Apply control flow and operators to implement logic. | BTL2 (Understand), BTL3 (Apply) | PO1, PO3, PO4 |
| CO3 | Design and implement functions and arrays in C. | BTL3 (Apply), BTL6 (Create) | PO2, PO4, PO5 |
| CO4 | Understand the role of preprocessing and libraries. | BTL2 (Understand) | PO1, PO5, PO6 |

Course Outcome Mapping to Units

| Unit | Topics Covered | Mapped COs |
|---|---|---|
| Unit I | Basics of C: Structure, variables, data types, operators, control flow | CO1, CO2, CO4 |
| Unit II | Functions, recursion, storage classes | CO2, CO3 |
| Unit III | Arrays, strings, pointers | CO3 |
| Unit IV | Structures, unions, file handling | CO3, CO4 |
| | | |
| | | |

| **Bloom's Taxonomy Level** | **Mapped Units** |
|---|---|
| BTL1 (Remember) | Unit I |
| BTL2 (Understand) | Units I, II, III, IV |
| BTL3 (Apply) | Units I, II, III, IV |
| BTL4 (Analyze) | Units I, II, III, IV |
| BTL5 (Evaluate) | Units I, II, III, IV |
| BTL6 (Create) | Units II, III, IV |

**UNIT I: Basics of C Programming (No. of Hours: 12) Textbook Reference: TB1 [1–7], TB2 [1–6], TB3 [1–6]**

| Lecture No. | Lecture Delivery Date | Topic/Module Details with Subtopics | Course Outcomes (COs) | Bloom's Taxonomy Levels | Learning Objective | Teaching-Learning Techniques / Activity | Sign. |
|---|---|---|---|---|---|---|---|
| 1 | 18/8/25 | Introduction to C, Structure of a C program, writing the first program | CO1 | BTL1 (Remember), BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand basic syntax, keywords, and C structure | Chalk & Talk, Hands-on with Turbo C / GCC | |
| 2 | 20/8/25 | Identifiers, keywords, constants, symbolic constants, variables | CO1 | BTL1 (Remember), BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Identify types of constants, keywords, and variables | Quiz, Practice sheets | |
| 3 | 20/8/25 | Data types and type modifiers, expression statements | CO1 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Describe different data types and expressions in C | Discussion, Coding Exercises | |
| 4 | 22/8/25 | Operators – arithmetic, relational, logical, assignment, shorthand, conditional | CO1 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Apply operators in various programming scenarios | Coding Practice | |
| 5 | 25/8/25 | Compound statements, comma operator | CO1 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Group multiple statements effectively | Examples + Hands-on | |
| 6 | 27/8/25 | Control structures – if, if-else, nested if, switch | CO1, CO2 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Implement branching logic using control structures | Lab demo | |
| 7 | 27/8/25 | Loops – for, while, do- | CO2 | BTL3 (Apply), BTL4 (Analyze), | Implement iteration using | Code writing | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 27/8/25 | while | | BTL5 (Evaluate), BTL6 (Create) | different loops | and execution | |
| 8 | 1/9/25 | Jump statements – break, continue, goto, exit | CO2 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Explain use cases for jump and exit statements | Examples from debugging scenarios | |
| 9 | 8/9/25 | #include preprocessor directive, system libraries introduction | CO4 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand the role of preprocessor and header files | Project-based use | |
| 10 | 8/9/25 | Summary & review through practice problems | CO1, CO2, CO4 | BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Solve mixed problems to reinforce understanding | Group worksheet & peer explanation | |
| 11 | 10/9/25 | Class Test / Quiz | CO1–CO4 | BTL5 (Evaluate), BTL6 (Create) | Evaluate understanding of Unit I concepts | Written assessment | |
| Unit I Assessment: 5 marks (UWA1) | | | | | | | |

**UNIT II: (A) Functions and Recursion (No. of Hours: 10) Textbook Reference: TB1 [8–10], TB2 [7–9], TB3 [7–9]**

| Lecture No. | Lecture Delivery Date | Topic/Module Details with Subtopics | Course Outcomes (COs) | Bloom's Taxonomy Levels | Learning Objective | Teaching-Learning Techniques / Activity | |
|---|---|---|---|---|---|---|---|
| 12 | 10/9/25 | Introduction to functions: syntax, declaration, and definition | CO2 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Explain the structure and purpose of functions in C | Whiteboard + Lab code | |
| 13 | 12/9/25 | Function call types: call by value vs call by reference | CO2 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Implement functions using different call mechanisms | Coding exercise | |
| 14 | 12/9/25 | Scope rules and | CO2 | BTL3 (Apply), BTL4 (Analyze), | Apply knowledge of | Chart & memory map | |

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|---|---|---|---|---|---|---|---|
| | | storage classes | | BTL5 (Evaluate), BTL6 (Create) | variable lifetime and visibility | demo | |
| 15 | 15/9/25 | Recursion: concept, base and recursive cases | CO3 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand recursive function flow | Recursion tree activity | |
| 16 | 17/9/25 | Recursive vs iterative approaches | CO3 | BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Compare recursive and iterative problem-solving | Compare table and dry-run | |
| 17 | 22/9/25 | Designing functions using recursion (factorial, Fibonacci) | CO3 | BTL6 (Create) | Design recursive solutions to mathematical problems | Coding challenge | |
| 18 | 24/9/25 | Storage class: auto, static, extern, register | CO3 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand different storage class behavior | Examples and memory diagrams | |
| 19 | 26/9/25 | Function nesting and scope chain | CO2 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Apply knowledge of function behavior across scopes | Coding scenario & Q&A | |
| 20 | 1/10/25 | Review and problem-solving | CO2, CO3 | BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Analyze logic and optimize function structures | Worksheet, Team Q&A | |
| 21 | 1/10/25 | Unit Assessment – Short problems and viva | CO2, CO3 | BTL5 (Evaluate), BTL6 (Create) | Evaluate understanding of function and recursion | Viva and written quiz | |
| Unit II (A) Assessment: 5 marks (UWA2) | | | | | | | |

**UNIT II: (B) Arrays, Strings, and Pointers (No. of Hours: 11) Textbook Reference: TB1 [11–13], TB2 [10–12], TB3 [10–12]**

| Lecture No. | Lecture Delivery Date | Topic/Module Details with Subtopics | Course Outcomes (COs) | Bloom's Taxonomy Levels | Learning Objective | Teaching-Learning Techniques / Activity | |
|---|---|---|---|---|---|---|---|
| 22 | 1/10/25 | Introduction to arrays: declaration and initialization | CO3 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand array storage and indexing | Memory layout demo | |
| 23 | 3/10/25 | 1D and 2D arrays: traversal and operations | CO3 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Apply operations on different array dimensions | Lab practice | |
| 24 | 8/10/25 | Strings: reading, writing, and library functions | CO3 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Use standard string functions effectively | String manipulation lab | |
| 25 | 8/10/25 | Pointers: declaration, initialization, and dereferencing | CO3 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand basic pointer syntax | Pointer diagrams | |
| 26 | 10/10 | Pointers and arrays | CO3 | BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Analyze relation between pointers and arrays | Code + debug trace | |
| 27 | 15/10 | Pointer arithmetic and pointer to functions | CO3 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Apply pointer operations in logic | Code writing and tracing | |
| 28 | 17/10 | Dynamic memory allocation (malloc, calloc, free) | CO3 | BTL6 (Create) | Create programs using runtime memory allocation | Allocation lab demo | |
| 29 | 29/10 | Array of pointers and string manipulation using pointers | CO3 | BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Analyze string operations using pointer logic | Visual code analysis | |
| 30 | 29/10 | Revision and Test | CO3 | BTL5 (Evaluate), BTL6 (Create) | Evaluate ability to use arrays, strings, and | Written Assessment + Debug | |

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| | | | | | pointers | Challenge | |
| Unit II (B) Assessment: 5 marks (UWA2) | | | | | | | |

**UNIT III: Structures, Unions, File Handling (No. of Hours: 10) Textbook Reference: TB1 [14–16], TB2 [13–15], TB3 [13–15]**

| Lecture No. | Lecture Delivery Date | Topic/Module Details with Subtopics | Course Outcomes (COs) | Bloom's Taxonomy Levels | Learning Objective | Teaching-Learning Techniques / Activity | |
|---|---|---|---|---|---|---|---|
| 31 | 31/10 | Structures: declaration, initialization, accessing members | CO3 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand structure definition and usage | Code + Diagram | |
| 32 | 31/10 | Array of structures, nested structures | CO3 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Apply structures to organize related data | Practical code activity | |
| 33 | 7/11 | Unions: declaration, difference from structures | CO4 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand memory saving in unions | Diagrammatic memory comparison | |
| 34 | 7/11 | Typedef, enum and bitfields | CO4 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Use type aliases and flags in C | Header walkthrough | |
| 35 | 12/11 | File handling basics: fopen, fclose, fgetc, fputc | CO4 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Apply basic file I/O operations | File read-write task | |
| 36 | 12/11 | Formatted file I/O: fprintf, fscanf | CO4 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Format data storage in files | Logging output to files | |
| 37 | 14/11 | File modes, error handling, file pointers | CO4 | BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Analyze safe file usage and debugging | File exceptions + logs | |
| 38 | 19/11 | Unit Assessment – Practical + | CO3, CO4 | BTL6 (Create) | Create a complete program using | Mini Program Activity | |

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| | | Viva | | | structures and files | | |
| Unit III Assessment: 5 marks (UWA3) | | | | | | | |

**UNIT IV: Standard Library Functions (No. of Hours: 10) Textbook Reference: TB1 [15, 22], TB2 [9], TB3 [8]**

| Lecture No. | Lecture Delivery Date | Topic/Module Details with Subtopics | Course Outcomes (COs) | Bloom's Taxonomy Levels | Learning Objective | Teaching-Learning Techniques / Activity | |
|---|---|---|---|---|---|---|---|
| 39 | 19/11 | Standard Library Functions: stdio.h, stdlib.h | CO4 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand structure definition and usage | Code + Diagram | |
| 40 | 21/11 | Standard Library Functions: conio.h, ctype.h, math.h | CO4 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand structure definition and usage | Practical code activity | |
| 41 | 21/11 | Standard Library Functions: string.h, process.h | CO4 | BTL2 (Understand), BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand structure definition and usage | Practical code activity | |
| 42 | 26/11 | Usage of command line arguments | CO4 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Understand structure, commands and usage | Practical code activity | |
| 43 | 26/11 | C99 extensions | CO4 | BTL3 (Apply), BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Apply basic commands in dos. | File read-write task | |
| 44 | 5/12 | Summary & review through practice problems | CO1, CO2, CO4 | BTL4 (Analyze), BTL5 (Evaluate), BTL6 (Create) | Solve mixed problems to reinforce understanding | Group worksheet & peer explanation | |
| 45 | 5/12 | Class Test / Quiz | CO1–CO4 | BTL5 (Evaluate), BTL6 (Create) | Evaluate understanding of Unit IV concepts | Written assessment | |

| Unit IV Assessment: 5 marks (UWA4) | |
|---|---|

## Internal Assessment: Distribution of marks (parameters of evaluation)

| Assessment Category | Weightage (marks) |
|---|---|
| Total Unit-wise Assessment<br>TUWA = UWA1 + UWA2 + UWA3 + UWA4 | 20 |
| Mid-term | 15 |
| Extraordinary Achievements | 05 |
| | |
| Total | 40 |

## Suggested Activities: Unit-wise

**Unit I: Basics of C Programming**

- Hands-on C program writing in Turbo C / GCC.
- Keyword and datatype identification games.
- Mini quiz on operators and control structures.
- Lab sessions with conditional and loop-based problems.
- Debugging challenge on syntax/logic errors.
- Peer-review worksheet activity.
- Complete small C programs (write → compile → debug).

**Unit II: Functions and Recursion**

- Flow-charting recursive functions (e.g., factorial, Fibonacci).
- Visual demo of call stack for recursion.
- Recursion vs iteration problem-solving debate.
- Function tracing and scope mapping.
- Memory diagram puzzles for storage classes.
- Short viva and logic-conversion challenges.

**Unit III: Arrays, Strings, and Pointers**

- Memory layout sketching for 1D/2D arrays.
- String manipulation race using library functions.
- Pointer tracing worksheets.
- Pointer-to-function coding drills.
- Dynamic memory simulation with real use cases.
- MCQ test + code completion under timed conditions.

**Unit IV: Structures, Unions, File Handling**

- Structure modeling using real-world entities (e.g., student database).
- Bitfield flag games (ON/OFF simulation).
- File I/O challenge: generate and parse report cards.
- Error-handling mock debug session.

- Mini project: C program with structures, files, and decision logic.
- Viva-style demonstration of created project.

**TEXT BOOKS:**

**TB1.** Yashwant Kanetkar, "Let us C" 17th edition, 2020.
**TB2.** E. Bala Guruswamy, "Programming in ANSI C", 8th edition, 2019.
**TB3.** Ashok N .Kamthane, "Programming in C", Pearson Education, 3rd Edition, 2015

**REFERENCE BOOKS:**

**RB1.** K R Venugopal, Sudeep R Prasad, "Mastering C", McGraw Hill Education; 2nd edition, 2017
**RB2.** V Rajaraman , "Computer Programming in C", 2nd Edition, 2019
**RB3.** Kernighan and d. Ritchie, "The ANSI C Programming Language", 2015
**RB4.** Stephen Prata, "C Primer Plus" 6th Edition, 2014
**RB5.** Schaum's Outline Series, "Programming with C", 4th Edition, 2018

MS. KANWALPREET KAUR

**NAME & SIGN. OF FACULTY** **HOD** **DIRECTOR**

MBS COLLEGE

# MBS College

Sector-9, PSP Area, Dwarka, New Delhi-110077

**Affiliated to GGS Indraprastha University, New Delhi | Approved by COA & AICTE**

## LESSON PLAN

**Programme:** BCA

**Subject Code:** BCA-105 **Subject:** Fundamentals of Computers & IT (FIT)

**Academic Session:** 2025-26 **Prepared By:** Dr. B.P. Singh

**Total Lectures:** 45

### Course Outcomes (COs)

**CO1:** Understand fundamentals of computers, number systems, and data representation.

**CO2:** Explain computer hardware, software, and operating system concepts.

**CO3:** Apply office automation tools for documentation, spreadsheets, and presentations.

**CO4:** Understand Internet technologies, networking basics, cyber security, and digital communication.

### CO-PO Mapping

| CO/PO | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|
| CO1 | 3 | 2 | 2 | - | - |
| CO2 | 3 | 3 | 2 | - | - |
| CO3 | 3 | 3 | 3 | 2 | - |
| CO4 | 3 | 2 | 2 | 3 | 2 |

### Lecture-wise Teaching Plan (AICTE/NAAC Format)

| Lecture No. | Unit | Topic | CO | Teaching Pedagogy | Signature |
|---|---|---|---|---|---|
| L-1 | Unit I | Introduction & Characteristics of Computer | CO1 | Lecture, PPT, Demonstration, Discussion | BD |
| L-2 | Unit I | Evolution & Generations of Computers | CO1 | Lecture, PPT, Demonstration, Discussion | BD |
| L-3 | Unit I | Classification of Computers | CO1 | Lecture, PPT, Demonstration, Discussion | BD |
| L-4 | Unit I | Block Diagram of Computer | CO1 | Lecture, PPT, Demonstration, Discussion | BD |
| L-5 | Unit I | Input Devices | CO1 | Lecture, PPT, Demonstration, Discussion | BD |

| Lecture No. | Unit | Topic | CO | Teaching Pedagogy | Signature |
|---|---|---|---|---|---|
| L-21 | Unit II | DOS Commands | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-22 | Unit II | Computer Languages (Low & High Level) | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-23 | Unit II | Introduction to MS-Office | CO3 | Lecture, PPT, Demonstration, Discussion | |
| L-24 | Unit II | Unit Test | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-25 | Unit III | Number System Concepts | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-26 | Unit III | Decimal & Binary Conversion | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-27 | Unit III | Octal & Hexadecimal Conversion | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-28 | Unit III | Binary Arithmetic – Addition/Subtraction | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-29 | Unit III | Binary Multiplication & Division | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-30 | Unit III | 1's Complement & 2's Complement | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-31 | Unit III | Subtraction using Complements | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-32 | Unit III | BCD Codes | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-33 | Unit III | ASCII & EBCDIC Codes | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-34 | Unit III | Numerical Practice Session | CO2 | Lecture, PPT, Demonstration, Discussion | |
| L-35 | Unit III | Revision | CO2 | Lecture, PPT, Demonstration, Discussion | |

**MBS COLLEGE**
**(Affiliated to GGSIP University)**
**DEPARTMENT OF COMPUER APPLICATIONS**
**LESSON PLAN FOR WEB TECHNOLOGIES (WT)**

SEMESTER : BCA I PAPER CODE : BCA-105T ACADEMIC YEAR : 2025-26

FACULTY NAME: MS. SARITA NEHRA

## *LEARNING OBJECTIVES:*

The objective of this course is to provide the learners the following:

1. Knowledge about the semantic structure of HTML, Javascript, CSS, XML and bootstrap.
2. Ability to compose forms and tables using HTML, Javascript, CSS and Bootstrap.
3. Expertise to design static web pages
4. Skills to create dynamic user interface and perform Client-Side validations using JavaScript

## *PRE-REQUISITES: None*

## *COURSE OUTCOMES (COs):*

After completion of this course, the learners will be able to:-

| CO# | Detailed Statement of the CO | BT Level | Mapping to PO # |
|---|---|---|---|
| CO1 | Develop static web pages through HTML, JavaScript, CSS and Bootstrap. | BTL6 | PO4, PO5 |
| CO2 | Implement different constructs and programming techniques provided by JavaScript. | BTL3 | PO4, PO8 |
| CO3 | Adapt HTML, Javascript, CSS and Bootstrap syntax and semantics to build web pages. | BTL1, BTL2 | PO4 |
| CO4 | Develop Client-Side Scripts using JavaScript to display the contents dynamically | BTL3, BTL6 | PO4,PO5 |

| S.no. | Lecture Objective | Topic/ Module Details with subtopics | Methodology | Reference /text book | Online References | Date on which delivered | PD signatur |
|---|---|---|---|---|---|---|---|
| | | | UNIT I | | | | |
| L-1 | Students would be able to understand concept of web technology | Introduction to Web Technology - Web Page, Home Page : Basic Terminology | Lecture with PPT | TB1, TB2 | | 8/9/25 | |
| L-2 | Define the concept of static and dynamic website | Static and Dynamic webpages, Web Client and Web Server, Web Browser | Lecture with PPT | TB1, TB2 | https://www.interviewbit.com/blog/difference- | 8/9/25 | |
| L-3 | Learn about HTML file structure | Introduction to HTML, HTML Document structure with basic tags and HTML comments | Lecture with PPT | TB1, TB2 | https://www.youtube.com/watch?v=FeC_fQgbMzI | 8/9/25 | |
| L-4 | Define basic formatting tags in HTML | Text formatting and inserting special characters | Lecture with PPT | TB1, TB2 | | 8/9/25 | |
| L-5 | Create Ordered and Unordered lists | Bullets, Lists and head styles | Lecture with PPT | TB1, TB2 | https://developer.mozilla.org/en-US/docs | 8/9/25 | |
| L-6 | Apply colors to HTML elements | RGB color model | Lecture with PPT | TB1, TB2 | | 8/9/25 | |
| L-7 | Apply anchor tags and add images in HTML documents | Anchor tag, adding images and Sound | Lecture with PPT | TB1, TB2 | | 9/9/25 | |
| L-8 | Able to use marquee & different background properties. | Marquee and background properties | Lecture with PPT | TB1, TB2 | | 9/9/25 | |
| L-9 | Create tables with customized settings using table attributes | Creating tables using HTML | Lecture with PPT | TB1, TB2 | | 9/9/25 | |

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|---|---|---|---|---|---|---|---|
| L-10 | Create a frame in a webpage | Frames and floating frames | Lecture with PPT | TB1, TB2 | https://www.freecodecamp.org/news/ / | 9/9/25 | |
| L-11 | Create a form in a web page | Creating forms using form elements | Lecture with PPT | TB1, TB2 | https://www.youtube.com/watch | 11/9/25 | |
| L-12 | Apply different attributes and their values with form elements | Using Forms elements and their attributes | Lecture with PPT | TB1, TB2 | | 11/9/25 | |
| L-13 | Comment on different HTML tags and their applications | Revision and Doubts | Lecture with PPT | TB1, TB2 | | 16/9/25 | |
| | | **UNIT II** | | | | | |
| L-14 | Learn the concept of CSS and type of CSS | Types of Style Sheets – Internal, inline and External style sheets | Lecture with PPT | TB1, TB2 | | 18/9/25 | |
| L-15 | Apply different styles in webpage using style sheets | Creating styles & using link tag | Lecture with PPT | TB1, TB2 | https://www.codecademy.com | 18/9/25 | |
| L-16 | Understand css style and properties | CSS Styling - background, Border | Lecture with PPT | TB1, TB2 | https://www.youtube.com/watch | 18/9/25 | |
| L-17 | Using font styles | Font- Family | Lecture with PPT | TB1, TB2 | | 18/9/25 | |
| L-18 | Define different types of CSS classes | Style Selector- Id, class name and Pseudo Class | Lecture with PPT | TB1, TB2 | | 22/9/25 | |
| L-19 | Understand the concept of bootstrap and responsive web pages | Introduction to Bootstrap and Responsive web design | Lecture with PPT | TB1, TB4 | https://www.youtube.com/watch?v=eow125xV5-c | 29/9/25 | |
| L-20 | Apply bootstrap for designing web pages | Linking with Bootstrap and container class | Lecture with PPT | TB4 | | 29/9/25 | |

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|---|---|---|---|---|---|---|---|
| L-21 | Understand components of bootstrap | Bootstrap Components | Lecture with PPT | TB4 | https://www.toptal.com/front-end/what-is- | 29/9/25 | |
| L-22 | Create grids, tables and insert images in a web page | Grids and tables | Lecture with PPT | TB4 | | 30/9/25 | |
| L-23 | Creating columns using bootstrap | Two and Three equal columns | Lecture with PPT | TB4 | | 6/10/25 | |
| L-24 | Create button and classes to design web page | Buttons in bootstrap | Lecture with PPT | TB4 | | 7/10/25 | |
| L-25 | Explain the advantages and application of CSS and Bootstrap | Revision and Doubts | Lecture with PPT | TB4 | | 9/10/25 | |
| | | **UNIT III** | | | | | |
| L-26 | Understand the concept of Java Script | Introduction to Java Script | Lecture with PPT | TB1 | https://www.youtube.com/watch | 13/10/25 | |
| L-27 | Learn different type of data type | Data Types, Variables & operators in Javascript | Lecture with PPT | TB1 | https://www.javatpoint | 14/10/25 | |
| L-28 | Learn how to use control statements | Control structures I – conditional Statements | Lecture with PPT | TB1 | | 20/10/25 | |
| L-29 | Learn how to use looping statements | Control structures II – looping Statements | Lecture with PPT | TB1 | | 28/10/25 | |
| L-30 | Define arrays and its methods | Arrays and arrays methods | Lecture with PPT | TB1 | | 30/10 | |
| L-31 | Explain the mechnaism of event handling | Event driven programming in javascript | Lecture with PPT | TB1 | https://www.youtube.com/watch | 10/11 | |
| L-32 | Define methods for events | Event handling in Javascript | Lecture with PPT | TB1 | | 10/11 | |

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|---|---|---|---|---|---|---|---|
| L-33 | Create user defined fuctions and use built in functions | Built in and User Defined Functions | Lecture with PPT | TB1 | | 10/11 | |
| L-34 | Apply Math and Date functions | Javascript Objects: Math, Date etc | Lecture with PPT | TB1 | | 11/11 | |
| L-35 | Apply string handling methods in Javascript code | Handling Strings | Lecture with PPT | TB1 | https:// www.w 3.org/T R/WD- | 11/11 | |
| L-36 | Understand DOM and its features | Document Object Model and Browser Object Model. | Lecture with PPT | TB1 | https:// www.ge eksforge eks.org/ dom- / | 11/11 | |
| L-37 | Summarizes the importance of Javascript | Practice and Revision | Lecture with PPT | TB1 | | 11/11 | |
| | | **UNIT IV** | | | | | |
| L-38 | Define XML and its use | Introduction to XML and Building blocks | Lecture with PPT | TB1, TB2 | https:// www.yo utube. | 13/11 | |
| L-39 | Understand XML DTD | XML DTD | Lecture with PPT | TB1, TB2 | | 13/11 | |
| L-40 | Explain the concept and working of XML DTD | Examples of XML DTD | Lecture with PPT | TB1, TB2 | https:// www.ed ucba. | 18/11 | |
| L-41 | Able to differentiate HTML & XML | Difference between HTML & XML | Lecture with PPT | TB1, TB2 | | 18/11 | |
| -42 | Understand the concept of web hosting and web servers | Web Hosting Concepts & types of web hosting | Lecture with PPT | TB1, TB2 | https:// www.up datedrev iews.in/ | 17/11 | |
| L-43 | Understand types of domain | Concept of domain- Physical domain, virtual domain | Lecture with PPT | TB1, TB2 | | 17/11 | |
| L-44 | Understand the domain registration process | Registering a domain | Lecture with PPT | TB1, TB2 | | 20/11 | |

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|---|---|---|---|---|---|---|---|
| L-45 | Understand web hosting and publishing concept | Web Hosting and Publishing Concepts | Lecture with PPT | TB1, TB2 | https://www.youtube.com/watch?v=BDdACdrs1vE | 20/11 | |
| L-46 | Understand the server requirements for web hosting | Server Requirements | Lecture with PPT | TB1, TB2 | https://www.hostgator.in/blog/website/how-to- | 21/11 | |
| L-47 | Summarizes the process of web hosting and domain name registration | Revision and Doubts | Lecture with PPT | TB1, TB2 | | 21/11 | |

**TEXT BOOKS:**

**TB1.** The complete reference HTML and CSS, by Thomas A powell, TMH publication.
**TB2.** Jeffrey C. Jackson, "Web Technologies: A Computer Science Perspective", Pearson
**TB3.** Internet and World Wide Web Deitel HM, Deitel ,Goldberg , Third Edition.
**TB4.** Bootstrap: Responsive Web development, Jake Spurlock, O"reilly, First Edition

**REFERENCE BOOKS:**

**RB1.** HTML Black Book , Stephen Holzner, Wiley Dreamtech.
**RB2.** Rajkamal, "Web Technology", Tata McGraw-Hill, 2001.
**RB3.** Jeffrey C. Jackson, "Web Technologies : A Computer Science Perspective", Pearson.
**RB4.** XML How to Program by Deitel Deitel Nieto.

**GLOSSARY AND MCQ LINK:**

https://classroom.google.com/c/NjkxNzgyNTY4NTcw

Subject Faculty | Programme Director | HOD | Director

# MBS COLLEGE
## School of Computer Applications
### Lesson Plan for Technical Communication

| Programme: **BCA** | Semester: **I** | Paper Code: **BCA 109** | Academic Year: **Aug-Dec 2025** |
|---|---|---|---|

**Course Objective:** Communication is a process of sharing information from one person to another. This course covers basics of Communication skills and English language. With the course student must learn about the correct use of English language and improve their communication skills.

**Course Outcomes:**

| **Course Outcomes (CO):** | |
|---|---|
| CO1 | The student will become familiar with the basics of communication and its importance in the organizational world. |
| CO2 | To improve the business writing skills also will become well aware how to write effective resume to enter the global world. |
| CO3 | To improve the listening skills by knowing well how to negotiate and give effective presentations. |
| CO4 | To make use of effective business language and give a professional look to oneself. |

**Course Outcomes (CO to Programme Outcomes (PO) Mapping (scale 1: low, 2: Medium, 3: High**

| CO/PO | *PO01* | *PO02* | *PO03* | *PO04* | *PO05* | *PO06* | *PO07* | *PO08* | *PO09* | *PO10* | *PO11* | *PO12* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *CO1* | – | 2 | – | – | – | – | – | – | – | 3 | – | 2 |
| *CO2* | – | 2 | – | – | – | – | – | – | – | 3 | – | 2 |
| *CO3* | – | 1 | – | – | – | – | – | – | – | 3 | – | 1 |
| *CO4* | – | – | – | – | – | – | – | – | – | 3 | – | 2 |

| Lecture No. | Lecture Objective | UNIT | Topic/ Module Details with subtopics | Methodology | Reference / Text book | Date on which delivered | Signature of Faculty |
|---|---|---|---|---|---|---|---|
| 1 | Concepts and Fundamentals of Communication | Unit- I | Concepts and Fundamentals: Introduction to Technical Communication, meaning of communication, Need and Importance of communication | Lecture | 1 | 18/8/25 | |
| 2 | | | Channel of Communication | Lecture | 1 | 18/8/25 | |
| 3 | | | Distinction between General and technical communication | Lecture | 2 | 19/8 | |
| 4 | | | Nature and features of technical communication | Lecture | 1 | 19/8 | |
| 5 | | | Seven Cs of communication | Group Discussion | 1,3 | 25/8 | |
| 6 | | | Types of Technical Communication | Lecture | 1 | 25/8 | |
| 7 | | | Styles in technical communication | Lecture | 1 | 25/8 | |
| 8 | | | Technical communication skills | Lecture | 1 | 26/8 | |
| 9 | | | Language as a tool of communication | Lecture | 1 | 26/8 | |
| 10 | | | History of the development of technical communication | Lecture | 1 | 26/8 | |
| 11 | | | Computer-Aided Technical Communication | Lecture | 1 | 26/8 | |
| 12 | | | Revision and MCQs practice | | | | |
| 13 | Oral Communication | Unit-II | Oral Communication: Principles of effective oral communication | Lecture | 1 | 28/8 | |
| 14 | | | Introduction of Self and others | Group Discussion | 1 | 1/9/25 | |
| 15 | Interviews | | Interviews: Meaning & Purpose, Art of interviewing, Essential features | Lecture | 1 | 3/9/25 | |
| 16 | | | Types of interview, Interview styles | Lecture | 1 | 4/9/25 | |
| 17 | | | Structure, Guidelines for Interviewer, Guidelines for interviewee | Group Discussion | 1 | 9/9/25 | |
| 18 | Meetings | | Meetings: Definition, Kinds of meetings, Agenda and Minutes of Meeting | Lecture | 1 | 17/9/25 | |
| 19 | | | Advantages and disadvantages of meetings/committees, Planning and organization of meetings | Lecture | 1 | 18/9/25 | |
| 20 | Presentations | | Project Presentations: Advantages & Disadvantages, Executive Summary, Charts, Distribution of time | Lecture | 1 | 19/9/25 | |
| 21 | | | Visual presentation, Guidelines for using visual aids, Electronic media | Group Discussion | 1 | 23/9 | |
| 22 | JAM Session | | The technique of conducting Group discussion and JAM session | Group Discussion | 1 | 25/9 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 23 | | | Revision and MCQs practice | | | | |
| 24 | Soft Skills | Unit-IV | Soft Skills: Non-Verbal communication- kinesics & Proxemics | Lecture | 1 | 30/9 | |
| 25 | | | Paralanguage, interpersonal skills | Lecture | 1 | 30/9 | |
| | | | Professional personality, workplace protocols and cubicles | | | 30/9 | |
| 25 | English Grammar and Language Skills | | Language Skills: Improving command in English, improving vocabulary, choice of words | Lecture | 2, 3 | 8/10 | |
| 26 | | | Common problems with verbs, adverbs, pronouns, tenses, conjunctions, punctuation, prefix, suffix, idiomatic use of preposition | | | 8/10 | |
| 27 | | | Sentences and paragraph construction (Antonyms, Synonyms) | Group Discussion | 3, 4 | 9/10 | |
| 28 | | | Introduction to Business English | Group Discussion | 1, 3 | 14/10 | |
| 29 | | | Revision and MCQs practice | | | | |
| 30 | Written Communication | Unit-III | Overview of Technical writing: Definition and Nature of Technical writing | Lecture | 1 | 14/10 | |
| 31 | | | Basic principles of technical writing, styles in Technical writing | Lecture | 1 | 16/10 | |
| 32 | | | Basic Principles of Technical Writing, Styles in Technical Writing, The Role of Technical Writing | Lecture | 2, 3 | 16/10 | |
| 33 | | | Note making, Notice and email writing | Lecture | 2, 3, 4 | 28/x | |
| 34 | Letters | | Writing Letters: Business letters, Office memorandum, good news and bad news letters | Lecture | 1, 3 | 28/x | |
| 35 | | | Persuasive letters, Sales letters, Letter styles/ layout | Lecture | 1 | 30/x | |
| 36 | Reports | | Report Writing: Definition and importance, categories of reports, elements of a formal report | Lecture | 1 | 6/11 | |
| 37 | | | Styles and formatting in the report | Lecture | 1 | 7/11 | |
| 38 | Special Technical document writing | | Project synopsis and report writing, Scientific article and Research paper writing | Lecture | 1 | 10/11<br>14/11 | |
| 39 | | | Dissertation writing: Features, Preparation and Elements | Lecture | 1 | 18/11 | |
| 40 | Proposal Writing | | Purpose, Types, Characteristics and Elements | Lecture | 1 | 20/11 | |

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|---|---|---|---|---|---|---|---|
| 41 | Job Application | | Types of application, Forms & content of an application, drafting the application | Lecture | 1 | 25/11 | |
| 42 | | | Preparation of Resume | Lecture | 1 | 27/11 | |
| 43 | | | Revision and MCQs practice | | | 28/11 | |

**Reference /Text books:**


1. Dr. T. N. Chhabra, "Bussiness Communication concepts & skills", Sun India Publications
2. Rayudu, "CS-Communication", Himayala Publishing house
3. Kavita Tyagi and Padma Misra,: Advanced Technical Communication", PHI
4. Kavita Tyagi and Padma Misra,: Basic Technical Communication", PHI 2011


**Signature of Faculty** **HOD** **Director**

# MBS COLLEGE

## SCHOOL OF COMPUTER APPLICATIONS
**Class BCA Semester I**
**Lesson Plan for Subject: Human Values and Ethics**

| COURSE: BCA | Paper Code: BBA 111 | Academic Year: 2025-26 |
|---|---|---|

### Course Outcomes
CO1: Understand fundamental human values and ethical principles relevant to personal and professional life in computing disciplines.

CO2: Analyze ethical issues and moral dilemmas arising in technology-driven and digital environments.

CO3: Apply professional ethics, integrity, and responsibility in academic, workplace, and IT-related contexts.

CO4: Evaluate the role of ethics, social responsibility, sustainability, and governance in nation-building and digital society.

### Programme Outcomes (POs)
PO1: Apply knowledge of computing fundamentals, mathematics, and basic sciences to solve computing problems.

PO2: Identify, analyze, and solve problems using ethical reasoning and logical thinking.

PO3: Design solutions considering social, ethical, legal, and environmental aspects.

PO4: Communicate effectively with society and professional community with ethical responsibility.

PO5: Recognize professional ethics, responsibilities, and norms of computing practices.

PO6: Function effectively as an individual and as a member or leader in teams.

PO7: Use modern tools responsibly with an understanding of security, privacy, and societal impact.

PO8: Engage in lifelong learning and adapt to emerging technologies with ethical awareness.

### CO–PO Mapping Matrix

| CO / PO | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 |
|---|---|---|---|---|---|---|---|---|
| CO1 | 2 | 2 | 3 | 2 | 3 | 2 | 1 | 2 |
| CO2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 |
| CO3 | 2 | 2 | 3 | 2 | 3 | 3 | 2 | 2 |
| CO4 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 3 |

Scale: 3 = High, 2 = Moderate, 1 = Low

**Unit I: Human Values and Harmony**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 1 | Value education | Meaning of value education | Lecture | R.R. Gaur | 01/9/25 | |
| 2 | Understanding values | Importance of values in life | Lecture | R.R. Gaur | 2/09/25 | |
| 3 | Value distinction | Human values vs skills | Lecture | R.R. Gaur | 3/09/25 | |
| 4 | Types of values | Universal, personal, social, moral, spiritual | Lecture | Sharma | | |
| 5 | Sources | Family, society, culture, education | Lecture | R.R. Gaur | 11/09/25 | |
| 6 | Self-exploration | Self-exploration process | Activity | R.R. Gaur | | |
| 7 | Individual harmony | Body–self relationship | Lecture | R.R. Gaur | 18/09/25 | |
| 8 | Family harmony | Trust, respect, care | Discussion | R.R. Gaur | | |
| 9 | Social harmony | Justice & social order | Lecture | Sharma | | |
| 10 | Value inculcation | Role of society | Case Study | All | 25/09/25 | |

**Unit II: Ethics and Ethical Decision Making**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 11 | Ethics basics | Meaning & definition of ethics | Lecture | Velasquez | 26/09/25 | |
| 12 | Ethics vs morality | Distinction | Lecture | Sharma | | |
| 13 | Ethical importance | Ethics in human conduct | Lecture | R.R. Gaur | 03/10/25 | |
| 14 | Ethical views | Relativism vs universal ethics | Lecture | Velasquez | | |
| 15 | Ethical sources | Law, religion, conscience | Lecture | Velasquez | 9/10/25 | |
| 16 | Ethical theories | Utilitarianism, deontology, virtue ethics | Lecture | Velasquez | 10/10/25 | |
| 17 | Decision making | Ethical decision-making process | Case Study | Velasquez | 16/10/25 | |
| 18 | Conscience | Role in moral judgement | Discussion | All | | |

**Unit III: Professional Ethics**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 19 | Profession | Concept of profession & ethics | Lecture | R.R. Gaur | 17/10/25 | |
| 20 | Workplace ethics | Professional ethics | Lecture | Velasquez | | |
| 21 | Core values | Integrity, honesty, fairness | Lecture | Sharma | 30/10/25 | |
| 22 | Responsibility | Accountability & conflict of interest | Lecture | Velasquez | | |
| 23 | Ethical issues | Bribery, whistleblowing | Case Study | Velasquez | 31/10/25 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 24 | Data ethics | Privacy & confidentiality | Discussion | All | 13/11/25 | |

**Unit IV: Ethics in Society and Global Context**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| 25 | Global ethics | Ethics in a globalized world | Lecture | Velasquez | 14/11/25 | |
| 26 | Cultural ethics | Cross-cultural issues | Lecture | Velasquez | | |
| 27 | Justice | Human rights & equity | Lecture | UN Docs | 20/11/25 | |
| 28 | Environment | Environmental ethics & SDGs | Lecture | Sharma | 21/11/25 | |
| 29 | Leadership | Ethical leadership & governance | Case Study | Velasquez | 24/11/25 | |
| 30 | Nation building | Value-based society | Discussion | All | 27/11/25 | |

**Text Books**

1. Gaur, R.R., Sangal, R., Bagaria, G.P. – Human Values and Professional Ethics, Excel Books.
2. Sharma, S. – Ethics and Human Values, Laxmi Publications.

**Reference Books**

3. Velasquez, M.G. – Business Ethics: Concepts and Cases, Pearson Education.
4. AICTE – Universal Human Values Modules.
5. UNESCO / United Nations – Universal Declaration of Human Rights & Sustainable Development Goals (SDGs).
6. Govindarajan & Natarajan – Professional Ethics and Human Values, PHI Learning.

**Unit-wise YouTube Learning Resources**

Unit I:

https://www.youtube.com/watch?v=Rr1Zkz3R5nQ

Unit II:

https://www.youtube.com/watch?v=G6pR2k8Z7mE
Unit III:
https://www.youtube.com/watch?v=9T4sQk5cF1M
Unit IV:
https://www.youtube.com/watch?v=QHkP6F2ZL8Y

**FACULTY SIGNATURE** **DEPUTY DIRECTOR** **DIRECTOR**

# MBS College

## Lesson Plan for (Applied Mathematics)

| Programme: BCA | Semester:2nd | Paper Code: BCA102 | Academic Year: 2026-27 |
|---|---|---|---|

**Course Objective: To enhance the mathematical thinking among students.**

**Course Outcomes: After completion of this course, the learners will be able to:**

| CO# | Detailed Statement of the CO |
|---|---|
| CO1 | Understand the various approaches dealing the data using theory of Probability |
| CO2 | CO2 Understand various numerical techniques and apply them to solve real life problems |
| CO3 | Understand various techniques to solve linear simultaneous equations |
| CO4 | Analyse and evaluate the accuracy of common Numerical Methods |

| Course Outcomes | Program Outcomes (Scale – 1:very low, 2: low, 3:medium, 4:high) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 |
| CO1 | - | 2 | 1 | 2 | - | - | 1 | - | - | - |
| CO2 | - | 2 | 1 | 2 | - | - | 1 | - | - | - |
| CO3 | - | 2 | 1 | 2 | - | - | 1 | - | - | - |
| CO4 | - | 2 | 1 | 2 | - | 3 | 1 | - | - | - |

| Lecture No. | Lecture Objective | UNIT | Topic/ Module Details with subtopics | Methodology | Reference / Text book | Date on which delivered | Signature of ~~Faculty~~ PD |
|---|---|---|---|---|---|---|---|
| 1 | **What is Probability and their use?** | Unit-1 | Introduction of factorial and permutation and combination | Elaborated Practical example and problem solving | T3 | 19/1 | |
| 2 | | Unit-1 | Introduction to Probability | | | 20/1 | |
| 3 | | Unit-1 | Question discussed based on Probability | | | 22/1 | |
| 4 | | Unit-1 | Conditional Probability | | | 23/1 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5 | **Combination and permutation and their use in probability** | Unit-1 | Baye's Theorem | Elaborated Practical example and problem solving | | 24/1 | |
| 6 | | Unit-1 | Questions discussed | | | 28/1 | |
| 7 | **Probability and probability distributions and their use** | Unit-1 | Introduction to Probability distributions, random variable | | | 29/1 | |
| 8 | | Unit-1 | Probability mass and density function | | | 29/1 | |
| 9 | | Unit-1 | Question discussed based on that | | T1, T3 | 30/1 | |
| 10 | | Unit-1 | Expectation of a random variable | | | 2/2 | |
| 11 | **Probability** | Unit-1 | Binomial distribution | Elaborated Practical example and problem solving | | 3/2 | |
| 12 | | Unit-1 | Poisson distribution | | | 3/2 | |
| 13 | | Unit-1 | Normal distribution | Elaborated Practical example and problem solving | T1, T3 | 5/2 | |
| 14 | | Unit-1 | Problems discussed on binomial, normal and poisson distributions | | | 6/2 | |
| 15 | **Interpolation and solution of non- linear equation** | Unit-2 | Discussed about operators, shift operators | Elaborated Practical example and problem solving | | 7/2 | |
| 16 | | Unit-2 | Forward difference operators | | | 7/2 | |
| 17 | | Unit-2 | Backword difference operators | | | | |
| 18 | | Unit-2 | Newton's forward and backward and divided difference formula | | T2,T3 | 11/2 | |
| 19 | **How to use operators for solving formula** | Unit-2 | Newtons forward interpolation | Elaborated Practical example and | | 12/2 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 20 | | Unit-2 | Newtons Backward interpolation | problem solving | | 14/2 | |
| 21 | | Unit-2 | different questions discussed | | | 14/2 | |
| 22 | **Understanding of non-linear equation and how to use it** | Unit-2 | Newton-Raphson Method for solving equation | Elaborated Practical example and problem solving | | 17/2 | |
| 23 | | Unit-2 | Question discussed | | | 18/2 | |
| 24 | **Solution of linear equations** | Unit-3 | **Introduction to system of linear equations and Gauss elimination method** with and without row interchange and gauss Jordan method | Elaborated Practical example and problem solving | | 19/2 | |
| 25 | | Unit-3 | Lu- Decomposition methods and questions discussed | Elaborated Practical example and problem solving | | 20/2 | |
| 26 | **Different methods to find the solution of linear simultaneous equations** | Unit-3 | Gauss Seidel methods | Elaborated Practical example and problem solving | T2,T3 | 21/2 | |
| 27 | | Unit-3 | Gauss Jacobi methods | | | 24/2 | |
| 28 | | Unit-3 | How to find the inverse of matrix with the help of gauss elimination and gauss Jordan method | | | 24/2 | |
| 29 | **Numerical Differentiation and integration** | Unit-3 | How to find the inverse of matrix with the help of gauss elimination and gauss Jordan method | Elaborated Practical example and problem solving | | 2/3 | |
| 30 | | Unit-3 | How to find the inverse of matrix with the help of gauss Jordan method | | | 3/3 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 31 | | Unit-3 | Discussion of first and second order derivatives with the help of shift operators | | | 4/3 | |
| 32 | | Unit-3 | First and second order derivatives at tabular and non-tabular points | | | 4/3 | |
| 33 | | Unit-3 | Numerical integration discussed | | | 6/3 | |
| 34 | **Application of Numerical Integration** | Unit-3 | Bisection method | Elaborated Practical example and problem solving | | 6/3 | |
| 35 | | Unit-3 | Trapezoidal rule and error in formula | | | 7/3 | |
| 36 | **Application of Numerical Integration Application of Numerical Integration** | Unit-3 | Simpsons 1/3 rule and error in formula | | T2,T3 | 7/3 | |
| 37 | | Unit-3 | error in Bisection, Trapezoidal and Simpsons 1/3 rule | | T2,T3 | 8/3 | |
| 38 | | Unit-3 | Question discussed | | T2,T3 | 9/3 | |
| 39 | **Linear Programming** | Unit -4 | Formulation of linear programming model. | Elaborated Practical example and problem solving | T4,T5 | 11/3 | |
| 40 | | Unit-4 | Solution of LPP by graphical method, Simplex Method ( maximization and minimization) | Elaborated Practical example and problem solving | T4,T5 | 14/3 | |
| 41 | **How to optimize transportation cost?** | Unit-4 | General structure of transportation problem | Elaborated Practical example and problem solving | T4,T5 | 15/3 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 42 | | Unit-4 | Methods for finding initial solution | Elaborated Practical example and problem solving | T4,T5 | 16/3 | |
| 43 | | Unit-4 | Testing for optimality of a transportation problem, maximization of transportation problem | Elaborated Practical example and problem solving | T4,T5 | 19/3 | |
| 44 | **Transportation & Assignment problems** | Unit-4 | Assignment problem approach of the assignment model, solution methods of assignment problem | Elaborated Practical example and problem solving | T4,T5 | 21/3 | |
| 45 | | Unit-4 | unbalanced assignment problem | Elaborated Practical example and problem solving | T4,T5 | 22/3 | |
| 46 | | Unit-4 | Restriction on assignment problem | | T4,T5 | 23/3 | |

**Reference /Text book:**


**T1. Miller $ Miller, Probability and Statistics**
**T2. S.S. Sastry, Numerical Analysis**
**T3. R. Chadha, BCA Mathematics**
**T4. S.P. Gupta and P.K Gupta, Quantitative techniques and operational research**
**T5. S.C. Gupta and V.K. Kapoor, Fundamental of statistics**


**Leave availed during this period:**

**Name & Signature of Faculty** **Deputy Director** **Director, MBS**

# MBS COLLEGE
**(Affiliated to GGSIP University)**

**Lesson Plan**
**Web Based Programming**

| Programme: BCA | Semester: II | Paper Code: 104 | Academic Year: 2025-2026 |
|---|---|---|---|

**Faculty Name : Ms. Sarita Nehra**

**Course Outcomes:**

| | |
|---|---|
| **CO1** | Design and develop dynamic web pages with good aesthetic sense of designing and latest technical know-how's. |
| **CO2** | Have a good understanding of Web Application Terminologies |
| **CO3** | Design and develop dynamic web pages with good aesthetic sense of designing and latest technical know-how's. |

Course Outcomes (CO to Programme Outcomes (PO) Mapping (scale 1: low, 2: Medium, 3: High

| CO/PO | PO01 | PO02 | PO03 | PO04 | PO05 | PO06 | PO07 | PO08 | PO09 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 2 | – | 3 | 3 | 3 | 2 | – | 2 | – | – | 2 | 2 |
| CO2 | 2 | 2 | 2 | 2 | 2 | – | – | – | – | – | – | 1 |
| CO3 | 2 | – | 3 | 3 | 3 | 2 | – | 2 | – | – | 2 | 2 |

| LNo | Lecture Objective | Topic/ Module Details with subtopics | Methodology Lecture /PPT/Assignment/ Case Study | Reference /text book | Date on which delivered | Remarks |
|---|---|---|---|---|---|---|
| L-1 | Understand the basic terminologies | Introduction to web applications, static and dynamic pages | Discussion | TB1 | 19/1 | |
| L-2 | Define various web servers | Web Servers: Local vs Remote, Introduction to LAMP, WAMP, XAMP etc. | Lecture and PPT | TB1 | 20/1 | |
| L-3 | Understanding basics of php and comparison of php with other languages | Introduction to php, advantages and comparison with other languages | Lecture and PPT | TB1, RB1 | 21/1 | |
| L-4 | Create simple programs based on conditional statements | Conditional statements in php and programs | Lecture and PPT | TB1, RB1 | 22/1 | |

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|---|---|---|---|---|---|---|
| L-5 | Create simple programs based on iterative statements | Loops in php | Discussion | TB1, RB1 | 23/1 | |
| L-6 | Define and implement superglobal variables | Super Global variables in php | Lecture and PPT | TB1 | 27/1 | |
| L-7 | Create simple programs based on arrays | Arrays: Creation, declaration and displaying elements in php | Demonstration | TB1, RB4 | 28/1 | |
| L-8 | Explore the use and advantages of different types of arrays in php | Types of Arrays in php: indexed and associative arrays | Lecture and PPT | TB1, RB4 | 29/1 | |
| L-9 | Perform different operations on arrays | Operations on arrays and using built-in methods | Discussion | TB1, RB4 | 30/1 | |
| L-10 | Explain include and die, exit methods | Include, die and exit methods | Discussion | TB1, RB4 | 2/2 | |
| L-11 | Able to explain programming constructs in php | Revision of concepts studied so far | Discussion | TB1, RB4 | 3/2 | |
| | | **UNIT II** | | | | |
| L-12 | Relate UDFs and built-in functions | User defined functions: Defining and calling | Discussion | TB1, RB1 | 4/2 | |
| L-13 | Compare pass by value & pass by reference | Pass by value & pass by reference – difference and examples | Lecture and PPT | TB1 | 5/2 | |
| L-14 | Demonstrate various string handling concepts | Working with Strings in php and operations | Lecture and PPT | TB1 | 6/2 | |
| L-15 | Summarize errors & exceptions in php | Mail function and php errors & exceptions | Lecture and PPT | TB1 | 10/2 | |
| L-16 | Contrast get & post methods | Get and Post methods | Discussion | TB1, RB1 | 11/2 | |
| L-17 | Identify event handling basics | Using php script with HTML form – Event handling | Lecture and PPT | TB1, RB3 | 11/2 | |
| L-18 | Create programs to manipulate cookies | Introduction to State management - Cookies | Demonstration | TB1 | 11/2 | |
| L-19 | Understands the concepts of sessions | Introduction to State management – Sessions | Lecture and PPT | TB1 | 12/2 | |
| L-20 | Conclude state management | Introduction to State management – Query String & Hidden Fields | Lecture and PPT | TB1 | 12/2 | |
| L-21 | Write and design forms and basic form validation | Form validation | Discussion | TB1, RB1 | 13/2 | |

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|---|---|---|---|---|---|---|
| L-22 | Define all concepts studied so far | Revision and Doubt Session | Lecture and PPT | TB1 | 17/2 | |
| | | **UNIT III** | | | | |
| L-23 | Illustrate the concept of file management | Working with Files – Opening and reading | Discussion | TB1, RB1 | 18/2 | |
| L-24 | Compare different file opening modes | Writing and appending to files | Demonstration | TB1, RB1 | 18/2 | |
| L-25 | Demonstrate file uploading operations | File uploading and downloading | Lecture and PPT | TB1, RB1 | 19/2 | |
| L-26 | Perform directory operations | Directory operations in php | Discussion | TB1 | 24/2 | |
| L-27 | Understands the concept of OOPs | Introduction to Object oriented concepts in php | Lecture and PPT | TB1, RB4 | 25/2 | |
| L-28 | Define and work with classes & objects | Creating and working with classes and objects | Demonstration | TB1, RB4 | 25/2 | |
| L-29 | Compare the difference between constructors & destructors | Using Constructors & Destructors | Lecture and PPT | TB1, RB4 | 26/2 | |
| L-30 | Identify various access modifiers | Access Modifiers | Discussion | TB1, RB4 | 3/3 | |
| L-31 | Understand the concept of Inheritance | Introduction to reusability & Inheritance | Lecture and PPT | TB1, RB4 | 3/3 | |
| L-32 | Explore types of inheritance in php | More on Inheritance | Lecture and PPT | TB1 | 4/3 | |
| L-33 | Define concepts studied so far | Revision | Revision & Doubt session | | 4/3 | |
| L-34 | Define concepts studied so far | Revision | Revision & Doubt session | | 5/3 | |
| | | **UNIT IV** | | | | |
| L-35 | Appraise various relational databases | Introduction to MySQL and other relational databases | Lecture and PPT | TB1 | 10/3 | |
| L-36 | Understand the concept of connection | Connecting with MySQL in php using MySQLi & PDO | Discussion | TB1, RB4 | 11/3 | |
| L-37 | Define MySQLi and PDO | PHP Data objects | Lecture and PPT | TB1 | 11/3 | |
| L-38 | Create connection string | Creating and destroying MySQL database and tables | Demonstration | TB1 | 12/3 | |
| L-39 | Create scripts for performing CRUD operations | Inserting & Deleting data in MySQL table | Demonstration | TB1, RB4 | 12/3 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-40 | Create scripts for performing CRUD operations | Updating data in MySQL table | Lecture and PPT | TB1, RB4 | 24/3 | |
| L-41 | Using prepared statement and create script | Using prepared statement and displaying data | Discussion | TB1, RB4 | 28/3 | |
| L-42 | Understand parsing of queries | Parsing query results and checking for errors | Lecture and PPT | TB1 | 31/3 | |
| L-43 | Define concepts studied so far | Revision | Discussion & Doubt session | TB1 | 31/3 | |
| L-44 | Answer short and long answer questions | Previous year QP | Discussion | TB1 | 31/3 | |

**TEXT BOOKS:**

**TB1 -** Programming PHP: Creating Dynamic Web Pages, Kevin Tatroe. Peter Macintyre, Rasmus Lerdorf, O'Reilly, Third Edition

**REFERENCES:**

**R1** – Professional PHP Programming,Jesus Castagnetto,Harish Rawat, Sascha Schumann,Chris Scollo,Deepak Veliath - Wrox Publications
**R2** – PHP 5 Advanced, Larry Ullman, Peachpit Press
**R3** - Core PHP Programming. Leon Atkinson (Prentice Hall, ISBN 0130463469).
**R4** – Beginning PHP5 and MySQL: From Novice to Professional, W. Jason Gilmore, 2004, Apress

**Link for Glossary and MCQ (URL of your Google Classroom)**

**https://classroom.google.com/c/ODM4ODc4NDkzNjU3?cjc=oj52ercm**

Ms. Savita Nehra
**Name & Signature of Faculty**

**Deputy Director**

**Director**

# MBS COLLEGE

**Affiliated to GGSIPU and Approved by CoA & AICTE**
**Sector-9, PSP Area, Dwarka, New Delhi-110077, https://mbscollege.org/**

**Lesson Plan for Data Structures and Algorithms using C**

| **Programme: BCA Semester: II Paper Code: BCA 106 Academic Year: 2025-2026** |
|---|

No of hours allotted to complete the syllabi*: 44 (mentioned in the syllabus)

**Course Objective: (mentioned in the syllabus)**

- **To understand the fundamental concepts of data structures**
- **To analyze algorithms using time and space complexity**
- **To implement linear and non-linear data structures**
- **To apply suitable data structures for solving computational problems**

**CO PO mapping: (mentioned in the syllabus)**

| CO/PO | PO1 | PO2 | PO3 | PO4 | PO5 |
|---|---|---|---|---|---|
| CO1 | 3 | 2 | - | - | - |
| CO2 | 2 | 3 | 2 | - | - |
| CO3 | 3 | 2 | 3 | - | - |
| CO4 | 2 | 3 | 2 | 2 | - |
| CO5 | 2 | 2 | 3 | - | 2 |

| Lecture-No | Lecture Objective | Topic/ Module Details with subtopics | Methodology Lecture/PPT/ Assignment/Case Study | Reference /text book | Date on which delivered | PD Remarks |
|---|---|---|---|---|---|---|
| | | **UNIT I** | | | | |
| L-1 | To provide a brief outline of the topics of unit I. | Overview of Data Structures | PPT | T1, Chapter1 | 20-1 | |
| L-2 | To explain data concepts | Data Types and Abstract Data types | PPT | T1, Chapter 1 R1, Chapter 1 | 21-1 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-3 | To clarify the basics of algorithms | Definition of Algorithm and its properties | Lecture | T1, Chapter 2 R1, Chapter1 | 22-1 | |
| L-4 | To understand the concept of performance analysis | Understanding Time and Space Complexity | Lecture and Numericals | R1, Chapter1 T1, Chapter2 | 27-1 | |
| L-5 | To explain the different Asymptotic Notations | Understanding the concept and graphs of Big-O, Ω, Θ notations | Lecture and problem solving | T1 Chapter2 R1 Chapter1 | 28-1 | |
| L-6 | To explain the concept of Arrays | Array representation and operation | Lecture | T1 Chapter3 R1 Chapter3 | 29-1 | |
| L-7 | To explain Arrays | Memory Representation and Address Calculation | Lecture and Numericals | T1 Chapter 3 R1 Chapter 3 | 3-2 | |
| L-8 | To Understand the applications of Arrays | Sparse matrices and their representation | Lecture and Examples | T1, Chapter3 R1 Chapter 3 | 4-2 | |
| L-9 | To explain the concept of Searching in Arrays | Linear and Binary Search and their comparison in terms of Time and space complexity | Lecture along with the program | R1, Chapter11 | 5-2 | |
| L-10 | To explain the different techniques of sorting in Arrays | Selection Sort and Bubble sort | Lecture along with the program | R1, Chapter10 | 10-2 | |
| L-11 | To explain the different techniques of sorting in Arrays | Insertion sort and Merge Sort | Lecture along with the program | R1, Chapter10 | 11-2 | |
| L-12 | To Understand the complexities of different sorting algorithms | Comparison of different sorting Algorithms | Lecture | R1 Chapter 10 | 12-2 | |
| L-13 | To understand the concept of Hashing | Hash Tables, Hash Functions and collision resolution | PPT | R1 Chapter 11 | 17-2 | |
| L-14 | Evaluation of Unit I | Assignment + Quiz | Google form | | 18-2 | |

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| | | | | | | |
|---|---|---|---|---|---|---|
| L-15 | Overview of Unit II | Introduction to Dynamic Linear Data Structures | PPT | | 18-2 | |
| L-16 | To understand the concept of Dynamic Memory Allocation | Implementation of Dynamic Memory allocation and comparison of Dynamic and Static Memory Allocation | Lecture | R1 Chapter 1 | 18-2 | |
| L-17 | To introduce the concept of Linked list | Singly Linked List Representation and Insertion Operation | Lecture, Smart Board | R1 Chapter7 T1 Chapter 6 | 19-2 | |
| L-18 | To explain different operations performed on singly linked list | Deletion operation, Searching an element in Singly Linked List | Lecture, Smart Board | R1 Chapter7 T1 Chapter 6 | 24-2 | |
| L-19 | To explain different operations performed on singly linked list | Updation operation on Singly Linked List | Lecture, Smart Board | T1 Chapter 6 R1 Chapter 7 | 25-2 | |
| L-20 | To explore different types of Linked List | Doubly Linked list and Circular Linked List | Lecture | R1 Chapter 7 T1 Chapter 6 | 26-2 | |
| L-21 | To Understand their operations and applications | Insertion and Deletion Operations | Lecture | R1 Chapter 7 T1 Chapter 6 | 3-3 | |
| L-22 | To Understand their operations and applications | Traversing and updating the Linked list | Lecture | R1 Chapter 7 T1 Chapter 6 | 4-3 | |
| L-23 | To Study the comparison between static list and dynamic list | Comparison of Arrays and Linked Lists | Lecture and Case study | R1 Chapter 7 T1 Chapter 6 | 5-3 | |
| L-24 | Evaluation of Unit II | Assignment 2, Quiz | Lecture, Google Form | | 10-3 | |
| L-25 | Overview of Unit III | Introduction to stacks and Queues | PPT | | 11-3 | |

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|---|---|---|---|---|---|---|
| L-26 | To understand the operations on Stacks | Implementation of Push and Pop Operation in Stacks using Arrays | Lecture | T1 chapter 4 R1 Chapter 5 | 12/3 | |
| L-27 | To understand the dynamic implementation of stacks | Implementation of stacks using Linked List | Lecture | T1 chapter 4 R1 Chapter 5 | 17/3 | |
| L-28 | To discuss the applications of stacks | Evaluation and Conversion between Polish and Reverse Polish Notations | Lecture, Numericals | T1 chapter 4 R1 Chapter 5 | 18/3 | |
| L-29 | To Introduce the concept of Queues | Basic Operations on Queues and its implementation using arrays. | Lecture, Smart Board | T1 chapter 5 R1 chapter 6 | 19/3 | |
| L-30 | To Understand the dynamic implementation of Queues | Implementation of Queues using Linked Lists | Lecture | T1 chapter 5 R1 chapter 6 | 24/3 | |
| L-31 | To understand different operations on Queues | To implement insertion, deletion, traversal and Updation operation on queues | Lecture | T1 chapter 5 R1 chapter 6 | 25/3 | |
| L-32 | To discuss various types of queues | Linear Queue, Circular Queue, Double ended queue and Priority queues | Lecture | T1 chapter 5 R1 chapter 6 | 26/3 | |
| L-33 | Evaluation of Unit III | Assignment 3 and Quiz | Google Form | | 26/3 | |
| L-34 | To discuss the Overview of Unit IV | Introduction to Trees and Graphs | PPT | | 26/3 | |
| L-35 | To understand the basic terminology of Trees | Discuss the terminology and types of trees | Lecture | T1 Chapter 7 R1 Chapter 8 | 27/3 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| L-36 | To explain the concept of Binary Trees and its Types | To discuss complete, Full, strict and Expression Binary Trees | Lecture | T1 Chapter 7 R1 Chapter 8 | 31/3 | |
| L-37 | To Understand the basic operations on Trees | Implementation of Tree Traversals | Lecture | T1 Chapter 7 R1 Chapter 8 | 31/3 | |
| L-38 | To introduce the concept of BST | Understanding Binary search Tree and its basic operations | Lecture | T1 Chapter 7 R1 Chapter 8 | 31/3 | |
| L-39 | To explain the Applications of Trees | Introducing AVL Tree, Heap Tree, M-Way Tree and B Tree | Lecture, Numericals | T1 Chapter 7 R1 Chapter 8 | 1/4 | |
| L-40 | To Understand the basic concept of graphs | Notations and Terminologies of Graphs | Lecture | T1 Chapter 8 R1 Chapter 9 | 1/4 | |
| L-41 | To understand the Representation of Graphs | Adjacency Matrix and Linked Representation | Lecture | T1 Chapter 8 R1 Chapter 9 | 1/4 | |
| L-42 | To explain the different traversal techniques | To implement the different traversal techniques BFS and DFS | Lecture | T1 Chapter 8 R1 Chapter 9 | 2/4 | |
| L-43 | Comparison of traversal techniques | BFS Vs DFS | Lecture, Case Study | T1 Chapter 8 R1 Chapter 9 | 2/4 | |
| L-44 | Evaluation of Unit IV | Assignment 4 and Quiz | Google form | | 2/4 | |
| L-45 | Revision | Revision | | | 2/4 | |
| L-46 | Revision | Revision | | | 2/4 | |

**TEXT BOOKS:**


1. Reema Thareja – Data Structures Using C (Oxford University Press)
2. Schaum's Outline Series, "Data Structures", TMH, Special Indian Ed., Seventeenth Reprint, 2014.

***References:***


1. Data Structures Through C (A Practical Approach) – G.S. Baluja
2. Ashok N kamthane "Introduction to Data Structures in C", Pearson, Third Edition, 2009.


Subject Faculty HOD Deputy Director Director

## Lesson Plan for Database Management System

| Programme: BCA | Semester: II | Paper Code: BCA 108 | Academic Year: 2025-2026 |
|---|---|---|---|

No of hours allotted to complete the syllabi*: 40 (mentioned in the syllabus)

| Course Outcomes (CO): | | |
|---|---|---|
| | CO 1 | Understand the DBMS concepts with detailed architecture, characteristics. Describe different database languages and environment and learn various data models, along with the related terminologies |
| | CO 2 | Explore Structure Query Language, a brief on NOSQL, Query By Example.Also understand the overview of SQL, and try to implement DDL, DML and DCL along with operators, use of joins, nested query, use of views and Indexes<br>Discuss Integrity Constraints |
| | CO 3 | Describe Relational Data Model, explain Codd's Rules, Relational Algebra, Set theory operations and the concept of functional dependencies and normalization |
| | CO 4 | Acquire Knowledge about Transaction Processing, concurrency problems, and its controlling techniques, Database backup and recovery and security. |

Course Outcomes (CO to Programme Outcomes (PO) Mapping (scale 1: low, 2: Medium, 3: High

| CO/PO | PO01 | PO02 | PO03 | PO04 | PO05 | PO06 | PO07 | PO08 | PO09 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 3 | – | 2 | – | – | – | – | – | – | – | – | 2 |
| CO2 | 2 | – | 3 | 2 | 2 | – | – | – | – | – | – | 2 |
| CO3 | 3 | – | 3 | 2 | – | – | – | – | – | – | – | 2 |
| CO4 | 2 | – | 2 | 2 | – | – | – | 2 | – | – | 1 | 2 |

### LESSON PLAN – TABULAR FORMAT (40 Lectures)

| Lec No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date Delivered | HOD Remarks |
|---|---|---|---|---|---|---|
| | | **UNIT I** | | | | |
| L-1 | Introduce DBMS | Overview of DBMS & applications | Lecture/PPT | TB1 Ch-2 | 19/1 | |
| L-2 | Explain DBMS features | Characteristics of DBMS | Lecture | TB1 Ch-2 | 20/1 | |

| | | | | | |
|---|---|---|---|---|---|
| **L-3** | Understand architecture | DBMS Architecture, Client–Server | Lecture | TB1 Ch-2 | 21/1 |
| **L-4** | Explain data models | Hierarchical, Network, Relational | Lecture | TB1 Ch-2 | 22/1 |
| **L-5** | Explain schema | Schema, Instance, Data Independence | Lecture | TB1 Ch-2 | 23/1 |
| **L-6** | ER Model basics | Entity, Entity set, Attributes | Lecture | TB1 Ch-3 | 27/1 |
| **L-7** | Attribute types | Composite, Derived, Multivalued | Lecture | TB1 Ch-3 | 28/1 |
| **L-8** | Keys | Super, Candidate, Primary Key | Lecture | TB1 Ch-3 | 30/1 |
| **L-9** | Relationships | Relationship types & degree | Lecture | TB1 Ch-3 | 2/2 |
| **L-10** | Weak entity | Weak entity & constraints | Lecture | TB1 Ch-3 | 3/2 |
| | | **UNIT II** | | | |
| **L-11** | Enhanced ER | Specialization & Generalization | Lecture | TB1 Ch-3 | 4/2 |
| **L-12** | SQL introduction | SQL overview & advantages | Lecture | TB1 Ch-8 | 6/2 |
| **L-13** | SQL data types | Data types & literals | Lecture | TB1 Ch-8 | 10/2 |
| **L-14** | DDL commands | CREATE, ALTER, DROP | Lecture/Lab | TB1 Ch-8 | 11/2 |
| **L-15** | DML commands | INSERT, UPDATE, DELETE | Lecture/Lab | TB1 Ch-8 | 12/2 |
| **L-16** | DCL commands | GRANT, REVOKE | Lecture | TB1 Ch-8 | 13/2 |
| **L-17** | Constraints | PK, FK, UNIQUE, CHECK | Lecture | TB1 Ch-8 | 18/2 |
| **L-18** | Operators | AND, OR, IN, BETWEEN | Lecture | TB1 Ch-8 | 24/2 |

| | | | | | |
|---|---|---|---|---|---|
| L-19 | NULL values | Handling NULL & comparisons | Lecture | TB1 Ch-8 | 26/2 |
| L-20 | Aggregation | GROUP BY, HAVING | Lecture | TB1 Ch-8 | 3/3 |
| L-21 | Joins | Inner & Outer Joins | Lecture | TB1 Ch-8 | 3/3 |
| L-22 | Nested queries | Subqueries, Correlated queries | Lecture | TB1 Ch-8 | 4/3 |
| L-23 | SQL objects | Views, Indexes, Triggers | Lecture | TB1 Ch-8 | 4/3 |
| | | **UNIT III** | | | |
| L-24 | Relational model | Relation, Tuple, Attribute | Lecture | TB1 Ch-7 | 5/3 |
| L-25 | Constraints | Domain & Key constraints | Lecture | TB1 Ch-7 | 6/3 |
| L-26 | Codd's Rules | Codd's 12 rules | Lecture | TB1 Ch-7 | 7/3 |
| L-27 | Relational algebra | Selection & Projection | Lecture | TB1 Ch-7 | 12/3 |
| L-28 | Set operations | Union, Intersection, Difference | Lecture | TB1 Ch-7 | 13/3 |
| L-29 | Joins in algebra | Join operations | Lecture | TB1 Ch-7 | 14/3 |
| L-30 | ER mapping | ER to Relational Mapping | Lecture | TB1 Ch-15 | 19/3 |
| L-31 | Functional dependency | FD & Armstrong's rules | Lecture | TB1 Ch-15 | 20/3 |
| L-32 | Normalization | 1NF, 2NF | Lecture | TB1 Ch-15 | 21/3 |
| L-33 | Advanced NF | 3NF & BCNF | Lecture | TB1 Ch-15 | 26/3 |
| | | **UNIT IV** | | | |
| L-34 | Transactions | Transaction & ACID | Lecture | TB1 Ch-19 | 27/3 |
| L-35 | Concurrency | Concurrency problems | Lecture | TB1 Ch-19 | 28/3 |

| | | | | | |
|---|---|---|---|---|---|
| **L-36** | Control techniques | Locking & Timestamping | Lecture | TB1 Ch-19 | 28/3 |
| **L-37** | Recovery | Backup & Recovery | Lecture | TB1 Ch-20 | 29/3 |
| **L-38** | Security | Authentication & Authorization | Lecture | TB1 Ch-20 | 30/3 |
| **L-39** | NoSQL & QBE | Overview of NoSQL & QBE | Lecture | TB2 Ch-5 | 1/4 |
| **L-40** | Revision | Complete syllabus revision | Discussion | All | 1/4 |

TEXT BOOKS

- TB1: Elmasri & Navathe – *Fundamentals of Database Systems*
- TB2: S. K. Singh – *Database System Concepts*
- TB3: Ramakrishnan & Gehrke – *Database Management Systems*
- TB4: Bipin Desai – *An Introduction to Database Systems*

REFERENCE BOOKS

- RB1: Silberschatz, Korth, Sudarshan – *Database Systems Concepts*
- RB2: Jim Melton, Alan Simon – *Understanding the New SQL*
- RB3: Majumdar & Bhattacharya – *Database Management Systems*

**URL of Digital Resources (Unit-wise)**

- https://www.geeksforgeeks.org/introduction-of-er-model/, https://www.pearson.com/store/p/fundamentals-of-database-systems/P100000653641( **Unit I)**
- https://www.pearson.com/store/p/fundamentals-of-database-systems/P100000653641( **Unit II)**
- https://www.mheducation.com/highered/product/database-management-systems-ramakrishnan-gehrke/M9780072465631.html**(Unit 3)**
- https://www.mongodb.com/docs/manual/introduction/**(Unit 4)**

**Name & Signature of Faculty** **Deputy Director** **Director**

## Lesson Plan – BCA 110: Environmental Studies (2 Credits)

**Programme: Bachelor of Computer Applications (BCA)**
**University: Guru Gobind Singh Indraprastha University (GGSIPU), Delhi**
**Paper Code: BCA 110**
**Paper Title: Environmental Studies**
**Credits: 2 (L-2, P-0)**
**Total Teaching Hours: 30**
**Academic Session: 2025–26 onwards**

### Course Outcomes (COs)

CO1: Understand natural processes and environmental components sustaining life.
CO2: Analyze the impact of human activities on environment and quality of life.
CO3: Develop critical thinking for biodiversity conservation and sustainability.
CO4: Apply environmental values for solving contemporary environmental problems.

### CO–PO Mapping Matrix (Scale: 1–Low, 2–Medium, 3–High)

| CO/PO | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | - | - | - | - | - | - | 2 | - | - | 3 | 2 | 2 |
| CO2 | - | - | - | - | - | - | 2 | - | - | 3 | 2 | 2 |
| CO3 | - | - | 1 | - | - | - | 3 | - | 2 | 3 | 3 | 2 |
| CO4 | - | - | - | - | - | - | 3 | - | 2 | 3 | 3 | 3 |

### Unit I: Introduction to Environmental Studies (8 Hours)

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date | Remarks |
|---|---|---|---|---|---|---|
| 1 | Intro | Multidisciplinary nature of EVS | Lecture | TB1 | 19/1 | |
| 2 | Components | Atmosphere, hydrosphere, lithosphere, biosphere | Lecture | TB1 | 20/1 | |
| 3 | Scope | Scope & importance of EVS | Lecture | TB2 | 22/1 | |
| 4 | Sustainability | Sustainable development concept | Lecture | TB2 | 23/1 | |

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|---|---|---|---|---|---|---|
| 5 | Issues | Climate change & global warming | Lecture | TB3 | 24/1 | |
| 6 | Protocols | UNFCCC, Kyoto, Montreal | Lecture | TB3 | 28/1 | |
| 7 | Conventions | CBD, Ramsar, CITES | Lecture | TB3 | 29/1 | |
| 8 | Revision | Unit I revision | Tutorial | All | 30/1 | |

**Unit II: Ecosystems and Natural Resources (7 Hours)**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date | Remarks |
|---|---|---|---|---|---|---|
| 9 | Ecosystem | Definition & structure | Lecture | TB1 | 2/2 | |
| 10 | Functions | Energy flow & food chains | Lecture | TB2 | 3/2 | |
| 11 | Types | Forest & grassland ecosystems | Lecture | TB3 | 3/2 | |
| 12 | Aquatic | Aquatic ecosystems | Lecture | TB3 | 5/2 | |
| 13 | Services | Ecosystem services | Lecture | TB2 | 6/2 | |
| 14 | Energy | Renewable & non-renewable resources | Lecture | TB1 | 7/2 | |
| 15 | Revision | Unit II revision | Tutorial | All | 7/2 | |

**Unit III: Biodiversity and Conservation (7 Hours)**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date | Remarks |
|---|---|---|---|---|---|---|
| 16 | Biodiversity | Definition & levels | Lecture | TB1 | 14/2 | |
| 17 | India | India as mega-biodiversity nation | Lecture | TB2 | 14/2 | |
| 18 | Values | Values of biodiversity | Lecture | TB1 | 19/2 | |
| 19 | Threats | Habitat loss & poaching | Lecture | TB2 | 20/2 | |
| 20 | Conservation | In-situ & ex-situ methods | Lecture | TB1 | 24/2 | |
| 21 | Projects | Project Tiger & Elephant | Case Study | Reports | 2/3 | |

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|---|---|---|---|---|---|---|
| 22 | Revision | Unit III revision | Tutorial | All | 6/3 | |

**Unit IV: Environmental Pollution & Control Measures (8 Hours)**

| Lecture No. | Lecture Objective | Topic / Module Details | Methodology | Reference | Date | Remarks |
|---|---|---|---|---|---|---|
| 23 | Pollution | Air & water pollution | Lecture | TB1 | 7/3 | |
| 24 | Standards | Air & water quality standards | Lecture | TB2 | 8/3 | |
| 25 | Noise | Noise & thermal pollution | Lecture | TB3 | 11/3 | |
| 26 | Nuclear | Nuclear hazards | Lecture | TB3 | 14/3 | |
| 27 | Waste | Solid & hazardous waste | Lecture | TB1 | 19/3 | |
| 28 | E-waste | E-waste management | Lecture | TB2 | 21/3 | |
| 29 | EIA | Environmental Impact Assessment | Lecture | TB3 | 26/3 | |
| 30 | Revision | Full course revision | Tutorial | All | 27/3 | |

Subject Faculty

Deputy Director

Director

## Suggested Readings

**Text Books:**

TB1. Sanjay Kumar Batra, Kanchan Batra, Harpreet Kaur – Environmental Studies, Taxmann's, Fifth Edition.
TB2. M.M. Sulphey – Introduction to Environment Management, PHI Learning, 2019.
TB3. S.P. Mishra, S.N. Pandey – Essential Environmental Studies, Ane Books Pvt. Ltd., Sixth Edition.

**Reference Books:**

RB1. Asthana, D.K. (2006). Text Book of Environmental Studies, S. Chand Publishing.
RB2. Basu, M., Xavier, S. (2016). Fundamentals of Environmental Studies, Cambridge University Press, India.
RB3. Bharucha, E. (2013). Textbook of Environmental Studies for Undergraduate Courses, Universities Press.
RB4. Mahapatra, R., Jeevan, S.S., Das, S. (Eds.) (2017). Environment Reader for Universities, Centre for Science and Environment.