

Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

			۶		TE	ACHIN	IG SCI	IEME			EV	ALUATION SC	HEME			s	
COURSE	ORE	E AREA	IYPOLOGY	NAME OF THE COURSE						THE	ORY			STUDIO		MARK	
COL	CO	COURSE	COURSET	NAME OF THE COURSE	ι	т	s	CREDIT	2 - TERM EX AM 20%	TA 20%08 30%	ESUE 40%0R 50%	TOTAL	TA 10% OR 50%	EV 10% OR 50%	TOTAL	TOTAL	
STUDIO									INT	EX		INT	EX				
ARCH 101	PC	AR	STUDIO	BASIC DESIGN AND VISUAL ARTS			8	8					200	200	400	400	

ST YEAR / I Semester

# **ARCH 101: BASIC DESIGN & VISUAL ARTS**

Syllabus: 15 weeks (8 hours/week) Total Teaching hours: 120 Hrs.

#### COURSE OBJECTIVES:

- To introduce the students to the fundamentals and principles of basic design to enable them, to comprehend Design as a creative process of choice making and statement of intent. to undertake design by application of basic design principles.
- Understanding the human body in space Activities and their relationship with spaces Scales and proportions
- To impart a good foundation in design through hands-on experience in designing simple twodimensional and three-dimensional compositions.

#### COURSE OUTCOMES:

- At the end of the course, students will be able to:
  - Interpret visual literacy and visual expression; elements and principles of design
  - Develop the basic skills & abilities to design
  - Interpret basic vocabulary of design and architecture; Identify and map human activity in space
  - Infer, represent and communicate design ;
  - Construct representation and cognitive skills

EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:

- To impart an understanding of principles of composition, and appreciate design and elements. Exercises complement the lectures and ensure that the students learn to develop
- The Course prepares the ground for the students to gain an understanding of the fundamental issues in the design

FOCUS: Design Language

- Students will learn to explore human behaviour & activity through Space,
- The student will achieve the capacity of Experiencing Space in Time & Motion.
- The student will learn the basic vocabulary of design
- Students will learn the creation & organization of formal elements in works of art
  - Students will develop their basic skills & abilities of design expression.,
  - Students will learn visual literacy and visual expression, elements and principle of design, and the skill of rendering using a different medium. acquire the various skill to work with various material
  - Freehand: Memory left-brain creativity, Objects taking things apart/ reassembly

#### **COURSE OVERVIEW**

• The design provides the framework for understanding design as a new language by sensitizing students to the conceptual, visual, and perceptual issues involved in the design process. The design provides the framework for understanding design as a new language by sensitizing students to the conceptual, visual, and perceptual issues involved in the design process. and ways of representing it

COURSE	E CONTENTS:		
SR.	SYLLABUS: TOPIC	SUBTOPIC	TEACHING
NO.			HOURS:
VISUAL	ARTS		40hrs.
		Understanding the design field through various exercises	
		Relationship of basic design to architectural design and design	

Chairperson	Chairperson	Controller of Examination	Joint Registrar
Board of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore	Faculty of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore	Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore	Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore



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# ARCH 101: BASIC DESIGN & VISUAL ARTS

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• 1	Representation skill	field in general Analytic reasoning and criteria for judgment of design and developing a vocabulary of the design subject; Elements and principles of design: shapes and patterns:	10
	development	Transformations in two dimensions: Concepts of geometry & Color	hrs.
		<ul> <li>Sketching, 2D &amp; 3D drawings, painting, graphic</li> <li>Model-making skills</li> </ul>	
	Cognitive skill development	Exploration of various materials for drawing and models     Developing cognitive skills: observation, perception,     registration, expression, and critical thinking     Developing field explore the second s	
		Design field application Improving basic design for architectural design and the design field in general Complex observations, design, and expressive ability.	
		The abstract composition serves as the foundation for the development of ideas. Perception, observation, registration, and expression	
	Lateral Thinking	Critical thinking and cognitive skill application in design Brainstorming	
		Mental Associations - Role of experience and memory in design Matric of ideas	
	Representation and communication of design.	Use of graphic language and representational techniques for communication of design	
2	Elements of design	<ul> <li>The visual components of colour, form, line, shape, space, texture, and value</li> <li>Compositions using elements of decign</li> </ul>	20hrs.
	Principles of design	<ul> <li>Compositions using elements of design</li> <li>The design principles - Balance, emphasis, movement, proportion, rhythm, unity, and variety</li> <li>Compositions using principles of design</li> </ul>	
	Abstraction and Simplification	<ul> <li>Complex observations, perception, design, and expression</li> <li>Progressive evolution</li> <li>Simplification/abstraction of an object using basic principles and elements of design</li> <li>Use of foreground-background / contrast / color</li> </ul>	
3	Design vocabulary	<ul> <li>Design attributes Analytical reasoning and design decisions</li> <li>Criteria for judgment of design and developing a vocabulary of design subject</li> </ul>	10hrs along with the studio
	Skill development	<ul> <li>3D Exploration</li> <li>Complex geometrical form</li> <li>Expression of Graphics, geometry, solids, assembly &amp;</li> </ul>	studio
		<ul> <li>intersections</li> <li>Exploration of material and advanced presentation techniques</li> </ul>	
	Volumetric &	<ul><li>Descriptive and analytical skills</li><li>Understanding of scale and proportion</li></ul>	
	Spatial exploration	<ul><li>Spatial perception</li><li>Volumetric exploration</li></ul>	

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- Ordering principles • Spatial vocabulary Relation of basic design to architectural design DESIGN 80hrs Introduction to design and Architecture: Elements of Composition. (2D, 3D, 4D) Transformations in dimensions: Concepts of geometry: Form and Space: Mapping of Space(s). (Ideograms) Introductory to Anthropometrics & Ergonomics Exploration of design principles through case studies Introductory To develop representation and communication skills 40hrs 4 exercises based on through exercises involving drawing, sketching, graphic 'Learning by doing' language, model-making, collage, etc. Undertake exercises to enhance creative thinking Introduction to the . To develop a small-scale design project for comprehension 5 40hrs studio-based of design criteria involving the following: iterative design Understanding human activity and behaviour in space by process activity mapping, anthropometric studies, etc. To make, explore, feel and mould space based on design
  - To make, explore, reel and mould space based on design ideas/principles Undertake hands-on work and creative thinking. Explore 'making' through various mediums and techniques of representation.
    Introduction to visualization and representation of an
  - architectural environment's spatial qualities like spatial enclosure, depth, height, view, orientation, etc. and tectonic characteristics like surfaces, material, shape, texture, etc.

SESSIONAL WORK: DESIGN

> • Minimum 6 tasks based on elements and principles of composition on sheets and/or models. Minimum one simple spatial design exercise such as seating area in public space, bus shelter, kiosks, play area, entrance gate, etc. demonstrating the application of the design principles and communicated effectively through two and three-dimensional hand-done drawings, sketches, and models.

**VISUAL ARTS** 

- Minimum 6 tasks based on the composition of sheets and/or models. Minimum one simple spatial design exercise demonstrating the application of the design principles and communicated effectively through two and three-dimensional hand-done drawings, sketches, and models.
- This is a studio subject and students should be made to prepare drawings as studio exercises along with the theoretical inputs. The studio work should be supplemented with appropriate site visits.
- Sketching Techniques: Sketching as a tool to develop ideas, sketching as a tool to communicate ideas, Collages & Montages, Model Making I (Paper, Thermocol, Cardboards, Clay, Wood, Etc.)

#### GUIDELINES

The Tasks or Assignments /Problem is to be set from the entire syllabus

The topic of the project is to be displayed on the Institute Notice Board fifteen days in advance OF the commencement of the classes

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**NOTE:** Evaluation is to be done through viva voice by an external examiner appointed by the university at Institute. Portfolios, after the university exam, shall be retained at the Institute level for the viva- voice.

#### SUGGESTED READINGS:

Aldo Tanchis and Huw Evans. Bruno Munari, Design as Art. Cambridge: MIT Press, 1987

Anja Hartmann; Unusual Architectural Presentation Drawings; Page One Publishers, 2007.

Arthur L Guptill, Drawing and Sketching in Pencil; Courier Corporation 2012.

Arthur L Guptill, Drawing with Pen and Ink: And a word about the brush; Literary Licensing, LLLC, 2013.

Berger, John. Ways of Seeing. New York, Viking Press, 1972

Bovill, Carl. Fractal Geometry in Architecture and Design. Boston: Birkhäuser, 1996.

Charles Wallschlacgerm & Cynthia Busic-Snyder, Basic Visual Concepts, and Principles for Artists, Architects, and Designers, Mc Graw Hill, New York 1992.

Ching, Francis D. K. Architectural Graphics. New York: Van Nostrand Reinhold, 1975.

Ching, Francis D. K., and James Eckler. Introduction to Architecture.

Ching, Francis D. K., and Steven P. Juroszek. Design Drawing. New York: Van Nostrand Reinhold, 1998. .

Ching, Francis D. K., Architecture: Form, Space, and Order. Hoboken, N.J: John Wiley & Sons, 2007.

Ching, Francis D. K., Barry Inouye, and Douglas Zuberbuhler. Building Structures Illustrated.

Colquhoun, Alan. Essays in Architectural Criticism: Modern Architecture and Historical Change. Cambridge, MA: MIT, 1981. Corbusier, Le, and Frederick Etchells. Towards a New Architecture by Le Corbusier. London: Architectural Pr., 1965.

Corbusier, Le, Stanislaus Von. Moos, Arthur Rüegg, and Robert Venturi. Le Corbusier before Le Corbusier: Applied Arts, Architecture, Interiors, Painting, and Photography,

Curtis, Nathaniel Cortlandt. Architectural Composition. Cleveland, O.: J.H. Jansen, 1923.

Dodds, George, Robert Tavernor, and Joseph Rykwert. Body and Building: Essays on the Changing Relation of Body and Architecture. Cambridge, MA: MIT, 2002.

Field, M. City Architecture; Designs for Dwelling Houses, Stores, Hotels, Etc. In 20 Plates. Descriptions and an Essay on the Principles of Design. New York: D. Appleton, 1854.

Frampton, Kenneth, Arthur Spector, and Lynne Reed. Rosman. Technology, Place & Architecture: The Jerusalem Seminar in Architecture: 1996, 1994, Architecture, History &

Frank Lohan; Pen and Ink Techniques; Contemporary books, 1978.

Gombrich, E H. The Story of Art. New York: Phaidon Publishers; distributed by Oxford University Press, 1966

H. Gardner, Art through ages.

Hanks, A. David. Decorative Designs of Frank Lloyd Wright, Dover Publications, Inc. New York, 1999.

Hepler, E. Donald, Wallach, I. Paul. Architecture Drafting and Design, 3rd Ed. McGraw-Hill Book Company, New York, 1977.

International Library of Technology; Elements of Pen and Ink Rendering, Rendering with Pen and Brush, BiblioBazaar, 2010.

Itten, Johannes. Design and Form: The basic course at the Bauhaus, Thames and Hudson Ltd., London 1997.

Johnson, Paul-Alan. The Theory of Architecture: Concepts, Themes & Practices. New York: Van Nostrand Reinhold, 1994.

Krier, Rob. Architectural Composition, Academy Editions, London, 1988.

Lidwell, William; Kritina Holden; Jill Butler (2010). Universal Principles of Design (2nd ed.) Beverly, Massachusetts: Rockport Publishers.

Maier Manfired Basic Principles of Design, Vol.1, 2, 3 & 4, Van Nostrand Reinhold, NY. (1977)

Meiss, Pierre Von. Elements of Architecture: From Form to place, E and FN Spon, London, 1992.

Mike W Lin, Architectural Rendering Techniques: A Color Reference; John Wiley and Sons, 1985.

**Owen Cappleman & Michael Jack Jordon**, Foundations in Architecture: An Annotated Anthology of Beginning Design Project, Van Nostrand Reinhold New York, 1993.

Pallasmaa, Juhani. The Thinking Hand: Existential and Embodied Wisdom in Architecture. Chichester, U.K.: Wiley, 2010.

Park, Steven, and Le Corbusier. Le Corbusier Redrawn: The Houses.

Paul Laseau, Graphic Thinking for Architects and Designers, John Wiley & Sons, New York, 2001.

Paul Zelanski & Mary Pat Fisher, Design Principles & Problems, 2nd Ed, Thomson & Wadsworth, USA, 1996

Pipes, Alan. Drawing on 3-Dimensional Design. Thames and Hudson Ltd., London 1990.

Rasmussen, Steen Eiler. Experiencing Architecture. Cambridge: M.I.T., Massachusetts Institute of Technology, 1962.

Rich, Peter Maurice., and Yvonne Dean. Principles of Element Design. Oxford: Architectural, 1999.

Robert W. Gill, Rendering with Pen and Ink

Shibikawa, Ikuyoshi and Takahashi, Yumi. Designers Guide to Colour.

Smithies, K.W. Principles of Design in Architecture. Chapman and Hall, 1983.

Chairperson

Board of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore Chairperson Faculty of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore Controller of Examination Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore Joint Registrar



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Sullivan, Louis H., and Maurice English. The Testament of Stone; Themes of Idealism and Indignation from the Writings of Louis Sullivan. Evanston, IL: Northwestern UP, 1963.

Tibor K Karsai, The Airbrush in Architectural Illustration; Van Nostrand Reinhold, 1989.

Trewin Copplestone, Arts in Society, Prentice Hall Inc, Englewood Cliffs, N. J. 1983.

White, Alex (2011). The Elements of Graphic Design. New York, NY: Allworth Press.

Whyte, William Hollingsworth. The Social Life of Small Urban Spaces. Washington, D.C.: Conservation Foundation, 1980.

William Wilson Atkin; Architectural Presentation Techniques; Van Nostrand Reinhold Co., 1976. ISBN 0442203616, 9780442203610 Wittkower, Rudolf. Architectural Principles in the Age of Humanism. New York: W.W. Norton, 1971.

Wucius, Wong. Principles of Two Dimensional Design. Van Nostrand Reinhold 1972.

Yee, Rendow. Architectural Drawing: A Visual Compendium of Types and Methods. Hoboken, NJ: J. Wiley, 2003

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ARCH 103	BS&AE	TE	THEORY CUM STUDIO	BUILDING MATERIAL & CONSTRUCTION - I	1		2	3	30	30	60	120	15	15	30	150	

SS-FOLIO FINAL Sessional (INTERNAL), EV - EXTERNAL VIVA VOICE, RVW - INTERMEDIATE REVIEW

# ARCH 103: BUILDING MATERIAL & CONSTRUCTION – I

Syllabus: 15 weeks (3 hours/week) Total Teaching hours: 45 Hrs.

#### **COURSE OBJECTIVES:**

#### To understand the elementary construction methods, explaining basic principles and considerations in the construction of buildings

#### COURSE OUTCOME

At the end of the course, students will be able to -

- Explain the properties of building construction materials and their use in building construction.
- Give an outline of building construction systems and the use of related building elements therein.
- Name building elements and basic building construction processes.

**EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:** 

To understand the techniques of construction of a simple load-bearing structure with simple materials like brick, stone, etc. Knowledge required for specifying appropriate materials for various spaces in buildings

FOCUS: Building Materials and Load Bearing Const. Systems

• Students will get an understanding of materials of construction, basic principles of construction, and elements of buildings through theory, relevant drawing & experience.

- Students will get an understanding of materials and building systems in a broad overview.
- Students will learn vocabulary related to building elements and construction.

#### **COURSE OVERVIEW:**

This course is a combination of lecture & studio classes aimed at developing the student's understanding of material properties and construction techniques with hands-on construction yard assignments to introduce to the methods and techniques of construction of basic elements of a simple building and provide information on the properties, use, installation and costs of basic building materials.

- Basic materials of construction: natural and man-made
- Basic building elements and systems of building through case studies.
- Understanding of constructional behaviour of different elements of a construction system, • about the properties of materials.
- Keywords, Terms & definitions.
- The concern with the appropriateness of materials to the context
- Load-bearingng system •

#### COURSE CONTENTS:

SR. NO. SYLLABUS: TOPIC

**SUBTOPIC** 

Introduction to basic elements of buildings and their importance: Structural concepts. Load bearing & nonload bearing walls; Construction details; Earthquake resistance; Types - walls, piers, footings, retaining structures;

- Introduction to different types of Masonry Brick Masonry: Brick: Brick bonds: walls, Garden wall bondina:
- Stonemasonry: Stone: Rubble work:
- Composite masonry: Cladding:
- **Openings: Lintels: Arches:**
- Ground and upper floors: Flooring Finishes: Flat roofs:

Chairperson **Board of Studies** 

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**Controller of Examination** Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore Joint Registrar

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**TEACHING** HOURS:



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1	Introduction to Building Construction Materials	<ul> <li>Introduction to building construction materials and their classification based on their properties: ceramic, metals, composites, polymers, and organic materials.</li> <li>Relationship of material properties to techniques and processes of working with materials.</li> </ul>
2	Introduction to elements of Super Structure and Sub- Structure	<ul> <li>Introduction to basic building elements and their 16 role in a building: foundation, plinth, walls, hrs. opening, roof, floor, etc.</li> <li>Introduction to building construction system and its elements e.g.: - Load Bearing, Framed and Composite structures.</li> <li>Explanation through case studies, measure</li> </ul>
3	Introduction to masonry structures	<ul> <li>drawing, etc.</li> <li>Understanding principles of Brick and Stone 17hrs. Masonry:</li> <li>Composition of brick earth and their properties, manufacturing process of bricks, classification of bricks, test for bricks, a special type of bricks, substitutes for bricks, etc.</li> <li>Bonds, principles, and applications in buildings.</li> <li>Brick walls in the different bond end, corners and junctions.</li> <li>Types of Masonry walls: load-bearing, partition, cavity, jali, Composite masonry, etc.</li> <li>Introduction to Mud and Stone construction and techniques of building with mud and stone.</li> <li>Demonstration of understanding by making models, drawings, hands-on work, etc.</li> </ul>
NOTE:		
•	The student will maintain At least two exercises are Each Unit should include	assignments should include appropriate site visits by the students. field observations/record books. e to be done in the construction yard. e a market survey and construction site to visit compulsorily with eets a minimum of 12 to 15 Nos A-1 Sheets
	STED READINGS:	
		th-based material for third world housing – IIED, London 1981.
		ng Materials. New Delhi: Tata McGraw Hill Education Ltd., 2013
		Vol. 2, 5th Ed. East-West Press. New Delhi, 1999.
Bnavikatt	<b>II, S. S.</b> Building Construction. N	oida: Vikas Publishing House Pvt. Ltd., 2013

Bhavikatti, S. S. Materials of Construction Vol - 2. New Delhi: I. K. International Publishing House Pvt. Ltd., 2014

Biggs, John M. Introduction to Structural Dynamics. New Delhi: McGraw Hill Education India Pvt Ltd, 2014

**Bindra, S P., And Arora, S P.** Building Construction: Planning Techniques and Methods of Construction, 19th ed. Dhanpat Rai Pub. New Delhi, 2000.

Charleson, Andrew. The structure of architecture: Sourcebook for architects and structural engineers. London: Taylor & Francis, 2015

Ching, Francis D. K. Building Structures Illustrated. New York: John Wiley & Sons, Inc., 2014

Ching, Francis D. K. Visual Dictionary of Architecture. Delhi: Wiley India (P) Ltd., 2012

Chudley, R. Building Construction Handbook. Oxford: Butterworth-Heinemann Ltd., 2010 Chudley, R. Construction Technology.

Cohen, Jean-Louis. Liquid Stone: New Architecture in Concrete. Boston: Birkhauser, 2006

Deplazes, Andrea. Constructing Architecture Materials Processes Structures: A Handbook. Switzerland: Birkhauser- Publisher of Architecture, 2013

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Pandit, G. S. Structural Analysis: A Matrix Approach. New Delhi: Tata McGraw-Hill Publishing Company Ltd., 2008

Parikh, Janak. Understanding the Concept of Structural Analysis and Design. Anand: Charotar Publishing House, 2000

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Sandaker, Bjorn N. Structural Basis of Architecture. UK: Taylor & Francis, 2011;

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**Singh**, **Gurcharan**. Building Material and Constructions. Delhi: Standard Book House, 2012; use of Bamboo and a Reed in Construction – UNO Publications;

Watson, Donald. Time-Saver Standards for Building Materials and Systems: Design Criteria and Selection Data. New Delhi: Tata McGraw Hill Education Private Limited, 2009

Chairperson Board of Studies Shri Vaishnav Vidyapeeth

Vishwavidyalaya Indore

Chairperson Faculty of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore Controller of Examination Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore Joint Registrar



Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

#### ARCH 104: ARCHITECTURAL GRAPHICS & DRAWING – I

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# ARCH 104: ARCHITECTURAL GRAPHICS & DRAWING - I

Syllabus: 15 weeks (3 hours/week) Total Teaching hours: 45 Hrs.

#### **COURSE OBJECTIVES:**

To introduce architectural drawing techniques and facilitate effective visual communication. The students will develop knowledge of orthographic projections, measured drawing, and skills in FreeHand sketching

COURSE OUTCOME: At the end of the course, students will be able to -

• Make use of Orthographic Projection Drawing as a representation tool & medium of effective visual communication.

Appraise skills in visualization

• Maximize the potential of two-dimensional drawing as a tool for design development and representation.

• Students will learn to Scale drawing and conventional architectural representations in drawings and graphics.

• Students will develop the understanding & skills of technical drawing as a tool for visual communication.

• Students will learn the basic drafting and visualization skill

**EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:** Make use of Architectural Drawing as a representation tool & medium of effective visual communication.

FOCUS: Students will learn the basic drafting and visualization skill (manual)

#### COURSE OVERVIEW:

• The course introduces the fundamental techniques of architectural drawing and develops the appropriate skills for visualization and representation.

COURSE CONTENTS:

SR.	NO.	SYLLABUS:
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1

# SUBTOPIC

TOPIC

# Introduction; Drawing:

- Basic and analytical geometry Geometric Constructions
- Geometrical Drawing:
- Description of Plane Curves
- Solid Geometry: Sections of solid
- Architectural Symbols:
- Orthographic Projections, Auxiliary Projection
- Development of surfaces
- Axonometric views, Isometric views, and other views.
- Measuring and Drawing to Scale:
- FreeHand Drawings: line strokes, light and shade techniques of simple, natural, and 3D geometric forms. Study of proportions and scale; structure and axes of objects; Outdoor sketching of simple building forms.

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# Chairperson

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Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

TEACHING HOURS:



Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

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#### **GUIDELINES**

Assignments /Tasks are to be set from the entire syllabus; The topic of the project is to be displayed on Institute Notice Board fifteen days - a week time in advance OF commencement of the classes

#### NOTE:

This is a studio subject and students should be made to prepare drawings as studio exercises along with the theoretical inputs. The studio work should be around 12 to 15 A1 sheets for appropriate site visits.

Evaluation is to be done through viva voce by an external examiner appointed by the university at Institute. Portfolios, after the university exam, shall be retained at the Institute level for the viva-voice

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

# ARCH 104: ARCHITECTURAL GRAPHICS & DRAWING - I

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L - THEORY; S- STUDIO, T -TUTORIAL; C - CREDIT; HRS: HOURS: MST - MIDTERM TEST, A.MST - AVERAGE OF MIDTERM, ESUE - END SS-FOLIO FINAL Sessional (INTERNAL), EV - EXTERNAL VIVA VOICE, RVW - INTERMEDIATE REVIEW

#### SUGGESTED READINGS:

Alan Jefferis, David A. Madsen, David P. Madsen. Architectural Drafting & design. Delmar Cengage Learning approach the built environment, 7th Ed. Tata McGraw Hill Pub., Delhi, 2000.

Bhatt, N.D. and Panchal V.M. Engineering Drawing: Plane and Solid Geometry, 42nd ed. Charotar Pub., Anand, 2000.

Bies, D. John. Architectural Drafting: Structure and Environment. Bobbs - Merrill Educational Pub., Indianapolis.

Ching, Francis D. K. Architectural Graphics. New York: Van Nostrand Reinhold, 1975.

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Council Jensen. Engineering Drawing & Design. McGraw-Hill

Dana J. Hepler, Paul Ross Wallach, Donald Hepler., Drafting & Design Architecture & Construction. Delmar Cengage Learning Dhananjay jolhey. Engineering Drawing. Tata Mcgraw Hill

Douglas Cooper., Drawing and Perceiving. WILEY

George Barnett Johnston., Drafting Culture. The MIT Press

Gill, P.S. T.B. of Geometrical Drawing, 3rd Ed. Dewan Sushil Kumar Kataria, Ludhiana, 1986.

Helmut Pottmann. Architectural geometry. Bentley Institute Press

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M.S.Kumar, Engineering Drawing, DD publications, Chennai 600 048

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Nelson, A. John. H.B. of Architectural and Civil Drafting, Van Nostrand Reinhold, New York, 1983.

Nichols, T.B. and Keep, Norman. The geometry of Construction, 3rd ed. Cleaver - Hume Press Ltd., London, 1959.

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Shah, M.G., Kale, C.M. and Patki, S.Y. Building Drawing: with an integrated approach to the built environment, 7th Ed. Tata McGraw Hill Pub., Delhi, 2000.

Thomas Obermeyer., Architectural Drafting Residencial & Commercial. Glencoe/McGraw-Hill

Thoms, E. French. Graphic Science and Design, New York: Mc Graw Hill.

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Joint Registrar



Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

# ARCH 105: HISTORY OF ARCHITECTURE & CULTURE- I

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# ARCH 105: HISTORY OF ARCHITECTURE & CULTURE- I

Syllabus: 15 weeks (2 hours/week) Total Teaching hours: 30 Hrs.

#### COURSE OBJECTIVES:

To explain to the students the evolution of architecture over time with special emphasis on social, religious, and environmental factors. To make the students understand the developments in construction technology in different periods.

#### COURSE OUTCOME:

- At the end of the course, students will be able to -
- Outline the prehistory and timeline of human evolution
- Discover various cultural expressions
- Compare Indian history and its cultural values
- Develop an understanding of the relationship between people and place

#### EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:

Acquire knowledge to identify the common characteristics among the monuments of a particular style and good practices of architecture in the past

Acquire graphic skills to present a building, analyze its elements and explain the composition. FOCUS: Humanities

The student will learn an appreciation of various cultural expressions through instruction and experience

The students will develop an appreciation of the rigorous thought processes in the field of science

#### **COURSE OVERVIEW:**

History of Architecture to be studied as the development of building forms in response to social, religious, aesthetic, and environmental factors. It focuses on the three-dimensional forms plan forms, façade organization, structural solution, construction methods, and ornamentation as well as focuses on the general trends and not on specific e.g. of buildings.

#### COURSE CONTENTS:

SR. NO. SYLLABUS: TOPIC SUBTOPIC

TEACHING HOURS:

Detailed study & analysis of architectural design fundamentals through significant e.g., in the light of the following for the periods mentioned in the modules. Genesis of seed ideas & concepts; Timeline; Sociopolitical background, key people involved; Climatic & geographic influence; General settlement pattern; Cities & its civic places; Construction technology & material; Typology; principles; Evolution; Design Spatial organization; Form & Detailing. The e.g., to represent the following historical styles are suggestive & students are encouraged to explore additional e.g., for comprehensive understanding of the respective styles

- Understanding art as an expression of culture.
- Exposition of aspects of literature, performing arts - theatre, dance, music and plastic arts; painting, sculpture, film, in terms of basic characteristics and development of each field and first-hand experience of some work

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B. ARCH (2021-26)

#### **COURSE CONTENT**

# ARCH 105: HISTORY OF ARCHITECTURE & CULTURE- I

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**NOTE:** -Emphasis should be laid on understating of building evolution and form. The continuous evaluation shall be made of students' work based on various models, assignments, and sketches.

#### SUGGESTED READINGS:

Arnold, Dana. Art History: A Very Short Introduction. New York: Oxford UP, 2004.; Bronowski, Jacob. The Ascent of Man. Boston: Little, Brown, 1974.; Copplistone, Trewin, and Others. World Architecture: An Illustrated History, 11th Ed. Hamlyn, London, 1979. Fletcher, Sir Banister. A History of Architecture, 19th Ed. CBS Pub., Delhi, 1992.

Giddens, Anthony., Introduction to Sociology. New York: W.W. Norton, 1996.

Heidegger, Martin, and Ralph Manheim. An Introduction to Metaphysics. New Haven: Yale UP, 1959.

Johnson, Harry Morton. Sociology: A Systematic Introduction. New York: Harcourt, Brace, 1960.

Lannoy, Richard. The Speaking Tree: A Study of Indian Culture and Society. London: Oxford UP, 1971.;

Majumdar, Ramesh Chandra. The History and Culture of the Indian People. Mumbai: Bharatiya Vidya Bhavan, 1996. .

Oliver, Paul. Encyclopedia of Vernacular Architecture of the World. Cambridge: Cambridge UP, 1997.

Patrick Nuttgens, The Story Of Architecture;

Pearce, F. G. An Outline History of Civilization. Bombay: Oxford U.P., 1965.;

**Rudofsky, Bernard.** Architecture without Architects, an Introduction to nonpedigreed Architecture. New York: Museum of Modern Art; Distributed by Doubleday, Garden City, N.Y., 1964.;

Schulz, Christian Norberg. Meaning in Western Architecture, 2nd Ed. Rizzoli Intl. Pub., New York, 1981.;

Siegfried Gideon, Space, Time And Architecture;

Soergel, Philip M. Arts & Humanities Through the Eras. Detroit: Thomson Gale, 2005.;

Stallabrass, Julian, and Julian Stallabrass. Contemporary Art: A Very Short Introduction. Oxford: Oxford UP, 2006.;

Toynbee, Arnold. Mankind and Mother Earth: A Narrative History of the World. New York: Oxford UP, 1976.;

Yarwood, Doreen. A Chronology of Western Architecture. B.T. Batsford Ltd., London, 1987.

Chairperson

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

# ARCH 107: THEORY OF STRUCTURES -I

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# ARCH 107: THEORY OF STRUCTURES -I

Syllabus: 15 weeks (2 hours/week) Total Teaching hours: 30 Hrs.

#### COURSE OBJECTIVES:

# • To enable students to understand the concepts of structures in architecture, use of different structural materials used for various buildings

#### COURSE OUTCOME:

At the end of the course, students will be able to -

- Explain conceptual understanding of structural behaviour
- Relate basic structural systems.

• Apply technical vocabulary related to structural design

EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:

- the students shall be confident about the structural action of the various elements.
- Further, he will have sufficient knowledge about the various long-span structures.

• Students will get a conceptual understanding of structural behaviour to learn basic structural systems.

FOCUS: • The student will understand the technical vocabulary related to structure.

#### COURSE OVERVIEW:

To inculcate in

- the student has an awareness of basic structural principles used in various building systems
- Students will understand the structural behaviour of materials, basic structural systems
- Students will understand the loading mechanism of structural systems
- Basic principles of mechanics and behaviour of elements of structures.

#### **COURSE CONTENTS:**

SYLLABUS: TOPIC	SUBTOPIC
	Introductio forces; a sy

# TEACHING HOURS:

Introduction: Structural Concepts: Force, the equilibrium of forces; a system of forces, resultant, equilibrant Parallelogram Iaw, LOADS OF STRUCTURE: STRUCTURAL MATERIALS

Different methods of categorization of the structural systemMechanical properties of structural material

• Structural systems based on the mechanism of transfer of load

- Analysis of trusses, Problem of Span, Stress, Strain
- Tension And Compression Members
- Concepts of various structural systems Cables Trusses – Arches – Cable Roofs – Space Frames – Flat Slabs.
- Types of Beams, Cantilever: Types of loads
- Curved Structures and Long-Span Buildings

Theory of Vaults and Domes – Construction of Masonry Vaults and Domes – Concepts of Reinforced Concrete Shells, Domes and Vaults – Folded Plate Roofs – tensile structures.

• Definition of the centroid, a line of symmetry, the centroid for some standard shapes, calculation of centroid for shapes like L, T, C, I Sections, etc., a moment of inertia, Derivation of M.I formula for

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

# ARCH 107: THEORY OF STRUCTURES -I

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L - THEORY; S- STUDIO, T - TUTORIAL; C - C REDIT; HRS: HOURS; MST - MIDTERM TEST, A MST - AVERAGE OF MIDTERM, ESUE - END SEMESTER UNIVERSITY EXAMINATION; IA - INTERNAL ASSESSMENT PROGRESSIVE, SS- FOLIO FINAL Sessional (INTERNAL), EV - EXTERNAL VIVA VOICE, RVW - INTERMEDIATE REVIEW

Rectangle, Circle, Triangle, calculation of M.I for L, T, C, I Sections, etc., later o la stat later failure of durated

		<ul> <li>Types of joints, lap joint &amp; butt joint, failure of riveted joints, the strength of the joint, efficiency of joint, Unwin's formula, chain riveting &amp; Diamond Riveting</li> </ul>	
1	Process of the	Structure and Structural form	6hrs
	building structure	Structure and its importance in Architecture	onio
2	The broad categorization	<ul> <li>Structural form - solid, Surface, skeleton, Membrane, hybrid</li> </ul>	6hrs
	of structural	Structural form - in Nature	
	system	<ul> <li>Structural form - man-made</li> </ul>	
3	States of stresses	• Tensile, compressive, shear, torsion, bending	6hrs
4	Basic	<ul> <li>Structural material: strength, stiffness, shape</li> </ul>	6hrs
	requirements	<ul> <li>Equilibrium: Vertical, Horizontal, Rational</li> </ul>	
	of a structure	<ul> <li>settlement and earthquake behaviour</li> </ul>	
5	Types of loads & supports	<ul> <li>Structural Elements: Strut, tie, beam, slab/plate, panel</li> <li>Structural Element behaviour: Tensile, compressive, shear, torsion, bending</li> </ul>	6hrs

C I I I

#### NOTE:

This course is to be taught as an introduction with special reference to the structure in nature viz. Trees, the Human body, and other examples of which unusual rock formations are created by the forces of nature like wind and water.

• The teaching in this subject must bring out:

- The predominant pictorial nature of the Architects language, The physical-mechanical essence of the subject matter.
  - The orientation of all Architectural efforts and their relation to form and space.

Emphasis should be laid on the understating of building evolution and form. The continuous evaluation shall be made of students' work based on various models, assignments, and sketches. More emphasis while teaching shall be laid on' learning by doing' by students involving the making of 3-D models (to give the student different spatial experiences and make them understand the basics/principles involved).

#### SUGGESTED READINGS:

Ambrose, James E. Building Structures. New York: Wiley, 1988.

Anderson, Stanford, and Eladio Dieste. Eladio Dieste: Innovation in Structural Art. New York: Princeton Architectural, 2004. James Ambrose, Building Structure, Canada Wiley, 2012

Biggs, John M., Introduction to Structural Dynamics, New Delhi, McGraw Hill Education India Pvt Ltd, 2014

Burns, John A. Recording Historic Structures. Washington, D.C.: American Institute of Architects, 1989.

Charleson, Andrew., Structure as Architecture: Sourcebook for architects and structural engineers, London, Taylor & Francis, 2015

Ching, Francis D. K., Building Structures Illustrated, New York, John Wiley & Sons, Inc., 2014

Corkill, P. A., H. L. Puderbaugh, and H. K. Sawyers. Structure and Architectural Design. Iowa City: Sernoll, 1974.

Cowan, Henry J. Architectural Structures: An Introduction to Structural Mechanics. New York: Elsevier, 1976.

Deplazes, and Söffker. Constructing Architecture: Materials, Processes, Structures. Basel: Birkhäuser Verlag, 2013.

Forsyth, Michael. Structures & Construction in Historic Building Conservation. Oxford, UK: Blackwell, 2007.

Gordon, J. E. The New Science of Strong Materials, Or, Why You Don't Fall through the Floor. Princeton, NJ: Princeton UP, 1984

Hunt, Tony. Tony Hunt's Structures Notebook. Oxford: Architectural, 2003.

James Ambrose, Building Structure, Canada Wiley, 2012

Kara, Hanif. Design Engineering: AKT Adams Kara Taylor. Barcelona: Actar, 2008.

Kumar, Ashok, Theory of Structures, New Delhi, Laxmi Publications Pvt. Ltd., 2004

Levy, Matthys, Why Buildings Fall: How Structures Fail, New York, W. W. Norton and Co., 2002

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

### ARCH 107: THEORY OF STRUCTURES -I

			GY		π	ACHIN	ie sc	HEME			EV	ALUATION SC	HEME			s	(HRS)
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THEORY									INT	EX		INT	EX				
ARCH 107	BS&AE	TE	THEORY	THEORY OF STRUCTURES -I	2			2	20	30	50	100				100	3

L - THEORY; S STUDIO, T -TUTORIAL; C - CREDIT; HRS: HOURS: MST - MIDTERM TEST, A.MST - AVERAC SS-FOLIO FINAL Sessional (INTERNAL), EV - EXTERNAL VIVA VOICE, RVW - INTERMEDIATE REVIEW

Mainstone, R. J. Structure in Architecture: History, Design, and Innovation. Aldershot, Hampshire: Ashgate, 1999. Millias, Malcolm, Building structures from concept to design, London, Spon Press, 2005

Miret, Eduardo Torroja, J. J. Polivka, and Milos Polivka. Philosophy of Structures: English Version by J.J. Polivka and Milos Polivka. Berkeley, CA: U of California, 1962.

Muttoni, A. The Art of Structures: Introduction to the Functioning of Structures in Architecture. Abingdon, Oxford, UK: EPFL/Routledge, 2011.

**Onouye, Barry S.**, Statics And Strength Of Materials For Architecture And Building Construction, Chennai, Pearson India Education Services Pvt Ltd., 2015

Parikh, Janak, Understanding Concept of Structural Analysis and Design, Anand, Charotar Publishing House, 2000 Ramamrutham, S., Theory of Structures, Delhi, Dhanpat Rai & Sons, 2013

Rosenthal, Hans Werner., and Hans Werner. Rosenthal. Structural Decisions: The Basic Principles of Structural Theory, Their Application to the Design of Buildings and Their Influence on Structural Form. London: Chapman & Hall, 1962.

Salvadori, Mario, and Robert A. Heller. Structure in Architecture: The Building of Buildings. Englewood Cliffs, NJ: Prentice-Hall, 1975.

Salvadori, Mario, Saralinda Hooker, and Christopher Ragus. Why Buildings Stand Up: The Strength of Architecture. New York: Norton, 1980.

Salvadori, Mario. Structure in Architecture. Englewood Cliffs, NJ: Prentice-Hall, 1963.

Sandaker, Bjørn Normann, and Arne Petter. Eggen. The Structural Basis of Architecture. New York: Whitney Library of Design, 1992.

Schodek, Daniel L. Structures. Englewood Cliffs, NJ: Prentice-Hall, 1980.

Seward, Derek, Understanding structures: analysis materials design, London, Palgrave, 2014

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

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STUDIO					INT EX INT EX												
ARCH 108	PC	SK	STUDIO	WORKSHOP- I			2	2					50	50	100	100	

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# ARCH 108: WORKSHOP -I

Syllabus: 15 weeks (2 hours/week) Total Teaching hours: 30 Hrs.

#### COURSE OBJECTIVES:

To introduce various fabrication skills and techniques necessary to produce scale-models, and encourage the preparation of models as an essential phase in design development and evaluation. Developing overall skills in understanding various tools, processes, and materials.

#### COURSE OUTCOME:

At the end of the course, students will be able to - • The student will learn different methods and techniques to represent an idea & thoughts

- The student will have various representation techniques at her disposal
- The student will be able to represent a design idea 3 dimensionally
- Use of presentation software •

#### **EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:**

Dexterity; Knowledge of materials and their properties; craft skills; visualization skills;

#### FOCUS: Manual Skills

- The student will learn different methods and techniques to represent an idea & thoughts
- The student will have various representation techniques at her disposal

CLIDTODIC

- The student will be able to represent a design idea 3 dimensionally
- Use of presentation software

#### **COURSE OVERVIEW:**

The course provides the foundation and capability to represent the concepts three-dimensionally. **Sketching Techniques** 

**COURSE CONTENTS:** SVI LARIES TODIC

SR. NO.	SALTARO2: IODIC	SUBIOPIC	HOURS:
1	Sketching:	<ul> <li>Sketching as a tool to develop ideas, to communicate ideas</li> </ul>	4hrs
2	Craft:	Collages & Montages, Form Work	4 hrs.
3	Model Making	<ul> <li>Model Making (Paper, Pharmacol, Cardboards, Clay, Wood, Etc.)</li> <li>Understanding various basic tools used for carpentry joinery and fabrication.</li> <li>Understanding various building materials and their tools used for cutting, joining, and extension. Handling materials like wood, marble, steel, MS, plywood, POP, Aluminum, etc.</li> <li>Understanding nailing, screwing, riveting and their various conditions and types of applications.</li> <li>Expression of forms- By handling various materials</li> </ul>	10 hrs.
4	Basic Use of Computers:	materials. Presentation Software (MS Office, Prezi & Others)	4 hrs.

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Shri Vaishnav Vidyapeeth	Shri Vaishnav Vidyapeeth	Vishwavidyalaya Indore	Vishwavidyalaya Indore
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#### **COURSE CONTENT**

# ARCH 108: WORKSHOP -I

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STUDIO									INT	EX		INT	EX				
ARCH 108	PC	SK	STUDIO	WORKSHOP- I			2	2					50	50	100	100	

5Photography:inbuilt models, using lighting and natural background4 hrs.Vocabulary<br/>development<br/>/reinforcement- Introduction to Architectural Keywords • Meanings to<br/>Architectural Keywords4 hrs.Making Sense of Architectural Keywords through the<br/>Masters' Works- Making Sense of Architectural Keywords through the<br/>Masters' Works

SESSIONAL WORK:

ASSIGNMENTS:

- All the above modules will be evaluated in the form of verbal or written presentation of artwork, drawing work, model making, photography, etc. At least three major assignments involving the individual students to fabricate
- Scale model of a piece of furniture, Presentation of models, mock-up of an Everyday Object, Three-dimensional Forms, etc.
- Documentation of the important phases of fabrication is a must which shall become the basis for internal evaluation.

#### **GUIDELINES**

- Continuous Evaluation shall be made of students' work based on various models, sketches assignments, and market surveys.
- One Major And the rest minor tasks are to be set from the entire syllabus
- The topic of the project is to be displayed on the Institute Notice Board fifteen days in advance OF the commencement of the classes
- Evaluation is to be done through viva voice. Portfolios, after the university exam, shall be retained at the Institute level for the viva- voice.

#### SUGGESTED READINGS:

Bernald, S and Copplene, Myers. History of Art.

Catherine Norman, Ryland Peters & Small, Paper Scissor Glue

Ching, Francis D. K., and James Eckler. Introduction to Architecture.

Ching, Francis D. K., and Steven P. Juroszek. Design Drawing. New York: Van Nostrand Reinhold, 1998.

Ching, Francis D. K., Architecture: Form, Space, and Order. Hoboken, N.J: John Wiley & Sons, 2007.

Craven, C. Roy. Indian Art a Concise History.

Deepak John Mathew., Principles of design through photography. Wisdom Tree Publishers

Donna Kato & Natson Guptill, The art of Polymer Clay

Douglas Cooper., Drawing and Perceiving. John Wiley & Sons.

Edward D. Levinson., Architectural Rendering Fundamentals. McGraw-Hill

Eugene Felder & Emmett Elvin, The complete book of drawing techniques, by

Helmut Pottmann., Architectural geometry. Bentley Institute Press Illustrated story of art. DK Publications.

Krier, Rob. The element of Architecture. Academy Editions, London, 1992.

Lorraine Farrelly. Representational Techniques. Fairchild Books AVA

Magnet, Jacque. The Aesthetic Experiences: An anthropologist looks at Visual Art.

Martin Dawber. Contemporary Illustration. Batsford, 2009

Michael E. Doyle. Colour Drawing. Wiley

Phil Metzger. The Art of Perspective: The Ultimate Guide for Artists in Every Medium. North Light Books, 2007 Preble, Duame. Art Forms.

Ray Smith. Artists Handbook. DK Publications.

Richard Poulin., Graphic design +architecture. Rockport Publishers

Robert W. Gil., Rendering with pen and ink., Thames & Hudson

Snyder, C. James, and Catanese, J. Anthony. Introduction to Architecture.

Tapert, Annette. Swid Powell: Objects by Architects. Rizzoli, New York, 1990.

Thyagarajan. Basic practical photography

Tim Mc Creight & Nicole Bsullak Color on Metal

Wilson William Atkin. Architectural Presentation Techniques. Van Nostrand Reinhold

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

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#### **COURSE CONTENT**

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THEORY									INT	EX		INT	EX				
ARCH 109	BS&AE	TE	THEORY	BUILDING SYSTEMS AND SERVICES-I (SURVEY & LEVELLING)	2			2	20	30	50	100				100	3

# ARCH 109: BUILDING SYSTEMS AND SERVICES -I SURVEYING & LEVELLING

Syllabus: 15 weeks (2 hours/week) Total Teaching hours: 30 Hr

COURSE OBJECTIVES:

To explain the techniques and instruments used in a survey of land tracts

COURSE OUTCOME:

- At the end of the course, students will be able to -
- Interpret the concept, instruments, and methods of surveying and levelling
- Make use of concepts and methods of surveying and levelling
- Appraise the relevance of surveying and levelling with the Architectural field

EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:

Surveying skills and related theory.

At the end of the course, students will be able to -

- Interpret the concept, instruments, and methods of surveying and levelling
- Make use of concepts and methods of surveying and levelling
- Appraise the relevance of surveying and levelling with the Architectural field

COURSE OVERVIEW:

To explain the different techniques and instruments used in a survey of land tracts

COURSE CONTENTS:

SR. NO. SYLLABUS: TOPIC SUBTOPIC

#### TEACHING G HOURS:

			• • •	Plane Table Survey: Levelling	G HOUKS.
	1	Introduction surveying	of •	Surveying and Architecture Introduction to surveying: Definition, object, uses, classification of the survey, Formulae are used in the measurement of land with geometrical and abstract configurations to work out Areas, volumes, and other quantities.	2 hrs.
2		Linear Measurements	•	Measurement of distance with chain, tape, EDM, GPS, etc., measurement on sloping ground, obstacles, Errors in measurements Selection of survey station. Chain line, Offset, oblique offset, tie line, check lines, ranging.	4 hrs.
		Measurements Angles	of •	Various parts of Compass, Types,	4 hrs.

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#### **COURSE CONTENT**

# ARCH 109: BUILDING SYSTEMS AND SERVICES -I SURVEYING & LEVELLING

			24		TE	ACHIN	IG SCI	HEME			EV	ALUATION SC	HEME				(HRS)
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THEORY									INT	EX		INT	EX				
ARCH 109	BS&AE	TE	THEORY	BUILDING SYSTEMS AND SERVICES-I (SURVEY & LEVELLING)	2			2	20	30	50	100				100	3
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#### NOTE:

Site Studies – Plot, site, land and regions, size and shape of the site, Analysis of accessibility, Topography, Climate, landforms, Surface Drainage, Soil, Water, Vegetation, Ecology, and Visual aspects.

#### SUGGESTED READINGS:

Arora, K.R. Surveying Vol. I, 6<sup>th</sup> Ed. Standard Book House, Delhi, 2000. Chandra A.M.(2006). Plane Surveying (2nd ed.). New Delhi, India: New Age International Publishers Ghosh J.K.. (2010). Elementary Engineering Surveying. New Delhi, India: Stadium Press (India) Pvt.Ltd. Gopi Satheesh., Sathi Kumar R., Madhu, N. (2018). Advanced Surveying (2nd ed.). Noida, India. Pearson Lynch, Kevin. Site Planning. MIT Press, Massachusetts, 1962. Punamia B.C. (2016). Surveying Volume 1 (17th ed.). Bengaluru, India: Laxmi Publications(P) Ltd.; Punmia, B.C. Surveying Vol. 1, 13<sup>th</sup> Ed. Laxmi Publications Pvt. Ltd., New Delhi, 1996.Rangwala (2018). Surveying and levelling. Anand, India: Charotar

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

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#### **COURSE CONTENT**

HUCS 101: COMMUNICATION SKILLS

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THEORY									INT	EX		INT	EX				
HUCS101	SEC	SK	THEORY	COMMUNICATION SKILLS	1		1	2	20	30	50	100	20		20	120	3

L - THEORY; S- STUDIO, T - TUTORIAL; C - CREDIT; HRS: HOURS; MST - MIDTERM TEST, A.MST - AVERAGE OF MIDTERM, ESUE - END SEMESTER UNIVERSITY EXAMINATION; IA - INTERNAL ASSESSMENT PROGRESSIVE, SS- FOLIO FINAL Sessional (INTERNAL), EV - EXTERNAL VIVA VOICE, RVW - INTERMEDIATE REVIEW

# HUCS 101: COMMUNICATION SKILLS

Syllabus: 15 weeks (2 hours/week) Total Teaching hours: 30 Hrs.

#### **COURSE OBJECTIVES:**

Develop the second language learners' ability to enhance and demonstrate skills Acquire English language skills to further their studies at advanced levels Become more confident and active participants in all aspects of their undergraduate programs

#### COURSE OUTCOME:

At the end of the course, students will be able to -

- Demonstrate understanding of the English Language
- Interpret the basic structure, grammar, vocabulary, and speech construction
- Develop an Understanding of Keywords in Architecture
- Build art of presentation in basic writing and public speaking with a focus on meaning,
- interpretation, accent, rhythm, etc. of the keywords in Architecture.

• Adapt skills of listening, reading, understanding, speaking, writing & translation in EnglishThe students should be able to: Have confidence in their ability to read, comprehend, organise and retain written information; Write grammatically correct sentences for various forms of written communication to express themselves

#### EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:

The students should be able to: Have confidence in their ability to read, comprehend, organise and retain written information; Write grammatically correct sentences for various forms of written communication to express themselves

#### **COURSE OVERVIEW:**

To provide an adequate mastery of technical and communicative English Language training primarily, reading and writing skills, secondarily listening and speaking skills.

#### **COURSE CONTENTS:**

SR. NO.	SYLLABUS: TOPIC	SUBTOPIC	TEACHING HOURS:
1	UNIT I	"Communication: nature, meaning, definition, verbal and non-verbal communication, barriers to communication	6 hrs.
2	UNIT II	Basic language skills: grammar and usage, parts of speech, tenses, subject, and verb agreement, prepositions, articles	6 hrs.
3	UNIT III	Basic language skills: types of sentences, direct - indirect, active and passive voice, phrases and clauses	6 hrs.
4	UNIT IV	Business correspondence: business letter, parts and layouts of business resume and job application, email writing, e-mail etiquettes.	6 hrs.
5	UNIT V	report writing: the importance of the report, types of report, the structure of a report	6 hrs.
	PRACTICAL:	self-introduction, reading skills, and listening skills, oral presentation, linguistics and phonetics, JAM (just a minute), group discussion, role plays	

**NOTE:** A Student Has to Produce a Presentation by The End of The Term and proper presentations as it is part of the architecture for juries and presentations

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#### **COURSE CONTENT**

# HUCS 101: COMMUNICATION SKILLS

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THEORY									INT	EX		INT	EX				
HUCS101	SEC	SK	THEORY	COMMUNICATION SKILLS	1		1	2	20	30	50	100	20		20	120	3

L - THEORY; S-STUDIO, T - TUTORIAL; C - CREDIT; HRS: HOURS; MST - MIDTERM TEST, A MST - AVERAGE OI SS-FOLIO FINAL Sessional (INTERNAL), EV - EXTERNAL VIVA VOICE, RVW - INTERMEDIATE REVIEW

#### SUGGESTED READINGS:

**A.J.Thomson and A.V.Martinet (1991)** A Practical English Grammar (4th ed) New York: Oxford IBH Pub **Adair John (2003)** Effective communication. London: pan Macmillan Ltd

Ashraf Rizvi(2005) Effective Technical Communication, New Delhi: Tata Mc Graw Hill

Kratz, Abby Robinson (1995) Effective Listening skills, Toronto on Irwin Professional Publishing

Pease Allan (1998) Body language, Delhi: Sudha Publications

Prasad, H.M(2001) How to prepare for group discussion and Interview. New Delhi Tata Mc Graw Hil

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B. ARCH (2021-26)

#### **COURSE CONTENT**

# ARCH 110: STUDY TOUR I

			64			TEAC	HING	SCHEME			EV	ALUATION SC	HEME			5	
JRSE	NAME OF THE COURSE	NAME OF THE COURSE						THE	ORY			STUDIO		MARK			
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FIELD W	ORK								INT	EX		INT	EX				
ARCH 110	SEC	SU	PROJECT	STUDY TOUR 1: BUILDING DOCUMENTATION				2					50	50	100	100	

# ARCH 110: STUDY TOUR I

I) STUDY TOUR /FIELD STUDIO

Syllabus: 1weeks (6 hours/week) Total Teaching hours: 30 Hr.

COURSE OBJECTIVE:

To analyze various art forms, and understand the techniques involved in creative thinking.

**COURSE OUTCOME :** 

At the end of the course, students will be able to

-• Students will get an understanding of the "synthesis of learning from various courses" by observing; registering & mapping built buildings.

• Programme outcome will be extremely valuable in creating a knowledge base on the architecture field not only in India but in nearby countries as well.

• Production of Accurate and precise drawings of many a monument, institutions, and settlements in India, which become a basis for future research.

Provides knowledge on the traditional art form, innovations in and influences on architecture and thinking process in design;

EXPECTED SKILLS / KNOWLEDGE TRANSFERRED:

different skills for creative thinking, understanding various art forms and appreciating art and architecture. a paper presentation and a summer case study

**COURSE OVERVIEW:** 

Students will develop the skills & understanding of measure drawing.

#### COURSE CONTENTS:

SR. NO. SYLLABUS: TOPIC **SUBTOPIC** 

> The STUDY TOUR (SBP) at the Institute of Architecture is a unique contribution to Architectural education. Initially called measure drawings, it is intended to take the students out into the field to get a first-hand experience of traditionally built environments. This subject recognizes the value of traditional architecture as well as the importance of field experiences and travel in the learning of architecture. The students are encouraged to learn about not only the architectural form but also related components of architectural relevance.

• Student and faculty members stay at the selected Village for 8 to 15 days.

• Students will get a comprehensive awareness of that village.

• Students will measure the built environment in terms of a cluster of houses, individual houses, and building elements of that house

• Students will also document the social, cultural, and environmental aspects of that village.

Students came back to the institute and make the final Drawings and reports within the remaining days.

**GUIDELINES** 

Chairperson **Board of Studies** Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

Chairperson Faculty of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

**Controller of Examination** Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

Joint Registrar

Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

TEACHING G HOURS:



Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

ARCH 110: STUDY TOUR I

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The topic of the project is to be displayed on the Institute Notice Board fifteen days in advance OF the commencement of the classes

**NOTE:** Evaluation is to be done through viva voce by an external examiner appointed by the university at Institute. Portfolios, after the university exam, shall be retained at the Institute level for the viva-voice

Evaluation: Stages: Proposal and on final submission of the paper /DOCUMENTATION of places visited Students contribute to the topic/area is of critical importance.

detailed out as per the academic calendar

a paper presentation on any subject of interest in the core or elective subjects.

The student needs to identify an area for research and in consultation with a guide propose first. On approval, this is to be developed through the summer and culminate as a research paper. Requirements (from students): Proposal, reviews, final presentation and paper.

a summer case study where the student has to select a built building by one of the architects and have a live document the building and analyse the building and a word of the concept according to the architect.

#### COURSE CONTENTS:

SR. NO. SYLLABUS: TOPIC SUBTOPIC

TEACHING G HOURS:

This course provides an opportunity for students to experience a working environment in an architecture firm in which to observe and apply their knowledge and skills for the degree. Projects will be negotiated between the School and the host organisation, involving students in a variety of design stages from preliminary design, design development, documentation, and presentation to a client. Students may also be involved in meetings, clerical work and administration to gain insight into the day-to-day functioning business. of а

The course will be offered to students based on academic merit through a competitive application and interview process. Students must complete the course to the satisfaction of the host organisation and academic supervisor

#### GUIDELINES

The place of the internship is to be finalised and displayed on the Institute Notice Board fifteen days in advance of the commencement of the vacation

Internship: During the internship phase (last seven weeks of the program), students will be working at their internship placement around 28 hours a week, from Mondays to Thursdays

**NOTE:** Evaluation is to be done through viva voce by an external examiner appointed by the university at Institute. Portfolios, after the university exam, shall be retained at the Institute level for the viva-voice

Evaluation: Stages: Proposal and on final submission of the paper /DOCUMENTATION of places visited Students contribute to the topic/area is of critical importance.

detailed out as per the academic calendar core or elective subjects. employment. This will be up for 2 weeks beginning It is the responsibility of the student to display and remove it promptly.

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

# ARCH 119: ELECTIVE -I

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# ARCH 119: ELECTIVE -I

Syllabus: 15 weeks (2 hours/week) Total Teaching hours: 30 Hr

	ELECTIVE- I (POOL I)
110 1	

- 119.1 POTTERY
- 119.2 COLLAGES AND MONTAGES
- 119.3 CARICATURE, SKETCHING & RENDERING
- MOOC: INNOVATION BY DESIGN (COURSE ERA)/IN DESIGN ACEDGE 119.4

COURSE OBJECTIVES:

1Sem

overall nurturing of the student with issues in practice and field outside

COURSE OUTCOME: At the end of the course, students will be able to -overall nurturing of the student with issues in practice and field outside better grooming than just books and theories. EXPECTED SKILLS / KNOWLEDGE TRANSFERRED: better grooming than just books and theories.

#### **COURSE OVERVIEW:**

The following is a representative list of Institute projects: Seminars, Tutorials/ additional classes for any course, Guest Lectures, Workshops, Providing knowledge to support students being sensitive design;

COURSE CONTENTS: **SYLLABUS: TOPIC** SR NO

1

SUBTOPIC

#### **TEACHING** G HOURS:

The creative electives provide an opportunity to express talents that are different from architecture but related to imagination, visualization & creation. They offer hands-on experience of unique ingenuity & workmanship. The essence of a creative domain can be achieved by exploring different materials, techniques, and processes; developing creative products; finishing & presenting the product for the concepts evolved. The outcome will be through portfolio & presentations.

As Per Pool Electives Choices Stage I odd semester pool

#### **GUIDELINES**

The topic of the project is to be displayed on the Institute Notice Board fifteen days in advance OF the commencement of the classes

NOTE: Evaluation is to be done through viva voce, Portfolios after the university exam shall be retained at the Institute level for the viva-voice

Pottery

Students will understand different types and forms of pots; Also the sense of the different scales of pots will be developed.

Understand the discipline of the workspace and its instruments of it; Different materials of pot making will be explored; the Different technology of the pottery will be explored; Understanding of firing in the kiln for baking of the pots

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

ARCH 119: ELECTIVE -I

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#### COURSE OUTCOMES:

At the end of the course, students will be able to -

- Relate to different types and forms of clay, clay work, and pots.
- Illustrate the use of a potter's wheel.
- Apply the basic knowledge of working with clay and tools in designing a product.
- Create a product with finishing with hands-on working on the potter's wheel.

Syllabus: 15 weeks (3 hours/we	ek) Total Teaching hours: 45 Hrs	
Syllabus: Topic r	Sub Topic	Teaching hours
1 Introduction to mud and mirror work	<ul> <li>Basic rules&amp; principles</li> <li>Mud and Mirror Work (also known as Lippan Kaam) is a traditional mural craft of Kutch.</li> <li>Clay and dried donkey dung powder are mixed in almost equal proportions to make a thin slurry. This slurry is applied as the base of the artwork.</li> </ul>	
2Making Geometrical Design , and Tracing on MDR Making Dough.	<ul> <li>Mike en Place or "everything in its place"</li> <li>Mixing</li> <li>Bulk (Primary) Fermentation</li> <li>Punching Down</li> <li>Benching</li> <li>Benching</li> <li>Shaping and Panning the Loaves</li> <li>Proofing the Loaf (Secondary Fermentation)</li> <li>Step 10: Stage 10: Baking.</li> </ul>	6 Hours
∃ools and Raw Materials	<ul> <li>The tools and raw materials used</li> <li>Wooden board/ Hardboard</li> <li>Clay, Glue, Chalk Powder, Sawdust,</li> <li>Scale, Pencil, Frame, Color, Mirror, Waste Cloth</li> </ul>	6 hours
4Learning Different Architectural patterns in mud- work	<ul> <li>Design pattern Architectural Patterns</li> <li>Design framework,</li> <li>Design Plywood /hardboard</li> <li>Design is drawn on the wooden piece using a pencil</li> </ul>	9 hours
<sup>5</sup> Kneading clay and making dough and making pinching exercise	<ul> <li>Squeezing and kneading</li> <li>Poking and pinching</li> <li>Rolling, Pressing, Cutting</li> <li>Stamping, Constructing</li> <li>Imagining</li> <li>Plasticine or modelling clay</li> </ul>	9 hours

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B. ARCH (2021-26)

#### **COURSE CONTENT**

ARCH 119: ELECTIVE -I

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# é Hands-on potter

wheel making post/vases.

#### Lubrication Is Vital while Throwing

6 hours

- The Proper Method for Centering Clay on the Potter's Wheel.
  - Speed and Movement While Throwing.
  - Compress the Pot's Rim after Every Throw
  - The Mechanics of Throwing a Pot's Walls
  - Sponge Up Excess Liquid after Each
  - Throw
    - Third Throw of the Pot's Walls

#### Course Outcomes:

At the end of the course, students will be able to -

Students will learn a brief history of collages and montages; Students will learn to explore using techniques of collages and montages.

Collages and Montages Brief Hi

will learn to explore using techniques of collages and montages. Brief History of collages & montages; Different types of collages; Different types of montages; Collages and Montages as a tool to represent ideas

- Tell different types and techniques of collages and/or manages
- Illustrate the importance of collages and/or montages as a tool to represent and communicate
  - ideas

•

Compose a collage/montage

# Syllabus: 15 weeks (3 hours/week)

#### Total Teaching hours: 45Hr

Unit No.	Syllabus: Topic	Sub Topic	Teaching hours:
1	Brief History of collages & montages	Brief Timeline, manual & digital ways, modern approaches etc	3 hours
2	Different types of collages	2D Collages 3D Collages	21 hours
3	Different types of Montages		21 hours
L= Lec	ture, W= Workshop, S=	= Studio, C= Credit	
	ested Readings:		
1.	Simpson, L., & Alexande	er, E. (2018). Lorna Simpson collages. San Francisco: Chror	icle Books.
2	Mooro A $(2019)$ Colla	ao Idoas Rook, Octopus Publishing Group	

2. Moore, A. (2018). Collage Ideas Book. Octopus Publishing Group.

Taylor, T., & Plowman, R. (2010). Masters: Collage: Major works by leading artists. New York: Lark Books.

Chairperson Board of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

3.

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Choice Based Credit System (CBCS) Scheme in the light of NEP-2020 by COA

B. ARCH (2021-26)

#### **COURSE CONTENT**

ARCH 119: ELECTIVE -I

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Freehand line sketching and drawing of natural and manmade. Study of shades and shadows,

Sketching of Historic or new built-up structures of Architectural importance using different mediums.

Understanding of human proportion about compositions; freehand sketching of volumes, spaces & human figures. Indoor objects - still Life – Furniture, Equipment - Understanding Depth, light, Shade, Shadow Etc., Outdoor sketching: Natural Forms/ Built Forms, Understanding variety in Forms. Sketching Human Form: Anatomy and Expressions - Graphical Representations.

# Sketching and renderingColour: Freehand rendering of Landscapes & builtscapes including<br/>human figures; Exercises; Application of Color in Architectural<br/>rendering; Relation between colour & texture.<br/>Rendering techniques:

Introduction to surfaces and media, observation, recording and basic representation techniques in different media through drawing pencil, pen, brush, charcoal, crayons etc. general approach to rendering, Entourage, Treatment of sky, clouds, landscape elements, human figures, foreground and surroundings, shadow projections in renderings.

Graphic skills and Presentation Techniques: Page layout and Composition grids; Illustration techniques; Portfolio design and formats; Digital techniques in graphics

# Caricature Students will learn about the history of caricature. Students will understand the techniques of making caricatures. Students will develop analytical skills and different techniques.

Brief History of caricatures, Uses and applications of caricatures in the design field, Caricatures of objects, animals, Caricature of person

# 4. MOOC

**COURSE OBJECTIVE:** overall nurturing of the student with issues in practice and field outside

COURSE OVERVIEW:

The following is a representative list of what may :

Tutorials/ additional classes for any course on online mode of platforms, Provides knowledge to support student being sensitive to design;

a paper presentation

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B. ARCH (2021-26)

#### **COURSE CONTENT**

ARCH 119: ELECTIVE -I

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#### COURSE OUTCOME: EXPECTED SKILLS / KNOWLEDGE TRANSFERRED: better grooming than just books and theories.

COURSE CONTENTS: SR. NO. SYLLABUS: TOPIC SUBTOPIC

> The creative MOOC provide an opportunity to access a different form of architecture related to imagination, visualization & creation. They offer the experience of unique ingenuity, theory or workmanship. The essence of the creative domain can be achieved by exploring different materials, techniques, and processes; developing creative products/theories; finishing & presenting the product for the concepts evolved. The outcome will be through portfolio & presentations. Where these workshops or MOOCs help them explore the different topics relevant to individual interests and in the palette of choices for the semester

#### TEACHING G HOURS:

Chairperson

Board of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

#### Chairperson

Faculty of Studies Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore

# Controller of Examination

Shri Vaishnav Vidyapeeth Vishwavidyalaya Indore Joint Registrar