

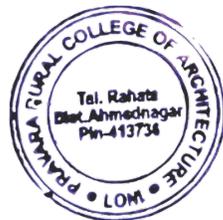


Criteria 2 – Teaching Learning and Evaluation (350)

2.6 Student Performance and Learning Outcome (90)

2.6.1 Programme Outcomes (POs) and Course Outcomes (Cos) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated.

Sr. No.	Content (Document)
1	POs 2019 Pattern
2	POs 2015 Pattern
3	POs –COs Based on Bloom's Taxonomy – 2019 Pattern
4	POs –COs Based on Bloom's Taxonomy – 2015 Pattern




PRINCIPAL
Pravara Rural College of
Architecture, Loni



LOKNETE. DR. BALASAHEB VIKHE PATIL
(PADMA BHUSHAN AWARDEE)
PRAVARA RURAL EDUCATION SOCIETY'S

**PRAVARA RURAL COLLEGE
OF ARCHITECTURE** **LONI**

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1. POs - 2019 Pattern



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Department	Architecture	Name of the Programme	Bachelors of Architecture (B.Arch.)
Unipune 2019 Pattern			

Programme Outcomes (PO's)	
PO's	Programme Outcome
PO1	Knowledge: Understanding about role of various knowledge domains such as humanities, technology, and environment in design of built environment.
PO2	Principles & Theory: Knowledge of principles of architecture & theoretical knowledge and its application in design.
PO3	Creativity: Creative and design thinking ability.
PO4	Practice: Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.
PO5	Collaborative Working: Ability to communicate effectively and work in interdisciplinary groups.
PO6	Inclusivity: Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.
PO7	Technological Knowhow: Ability to review, comprehend and report technological developments in the profession of architecture and onstruction.
PO8	Ability to choose Area of Specialisation or Practise: Able to judge one's area of interest and accordingly choose the field of practice.

Programme Specific Outcomes (PSO's)	
PSO's	Programme Specific Outcome
PSO1	Architectural Design Skills : Ability to effectively use basic formal, organizational and environmental principles and the capacity of each to inform two- and three-dimensional design.
PSO2	Building Service Systems: Application of the basic principles and performance of building service systems such as plumbing, electrical, vertical transportatio security, and fire protection systems.
PSO3	Architectural Professional Practice: Application of the basic principles of business within the architectural practice such as financial management and business planning, marketing, negotiation, risk management, human resources, practice typologies, firm culture, mediation and arbitration, and entrepreneurialism.



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2. POs - 2015 Pattern



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Department	Architecture	Name of the Programme	Bachelors of Architecture (B.Arch.)
Unipune 2015 Pattern			

Programme Outcomes (PO's)

PO's	Programme Outcome
PO1	Understand the real-life situation in architectural practice and recognize the dialectic relationship between people and the built environment (especial with reference to the Indian sub-continent) with reference to their needs, values, behavioral norms, and social patterns.
PO2	Thrive in a rigorous intellectual climate which promotes inquiry through design research.
PO3	Work collaboratively toward synthetic design resolution which integrates an understanding of the requirements, contextual and environmental connections, technological systems and historical meaning with responsible approach to environmental, historical and cultural conservation.
PO4	Apply visual and verbal communication skills at various stages of the design and delivery process.
PO5	Produce professional quality graphic presentations and technical drawings/documents
PO6	Critically analyze building designs and conduct post-occupancy evaluations
PO7	Work in a manner that is consistent with the accepted professional standards and ethical responsibilities.
PO8	Work in collaboration with and as an integral member of multi-disciplinary/interdisciplinary design and execution teams in the building industry.
PO9	Conduct independent and directed research to gather information related to the problems in architecture and allied fields.

Programme Specific Outcomes (PSO's)

PSO's	Programme Specific Outcome
PSO1	Architectural Design Skills : Ability to effectively use basic formal, organizational and environmental principles and the capacity of each to inform tv and three-dimensional design.
PSO2	Building Service Systems: Application of the basic principles and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems.
PSO3	Architectural Professional Practice: Application of the basic principles of business within the architectural practice such as financial management and business planning, marketing, negotiation, risk management, human resources, practice typologies, firm culture, mediation and arbitration, and entrepreneurialism.




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3. POs –COs Based on Bloom's Taxonomy – 2019 Pattern



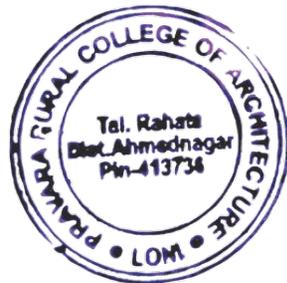
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PROGRAMME OUTCOMES AND COURSE OUTCOMES

2019 PATTERN



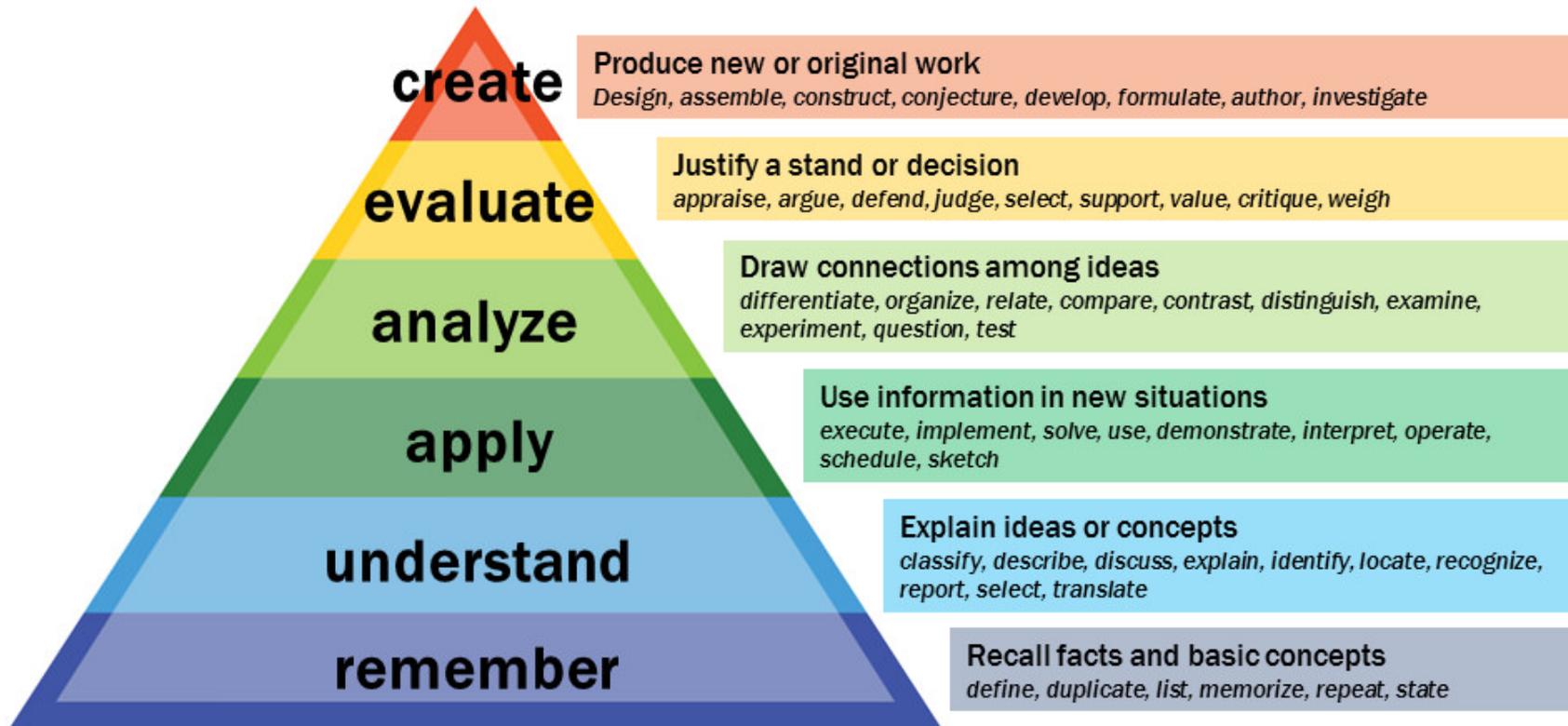

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PROGRAM OUTCOMES

Program	Bachelors of Architecture (B.Arch.)
Pattern	2019 Pattern
Program Outcomes	<p>PO. 1. Knowledge After successful completion of Five-year degree program in B.Arch. student will be able to: Understand about role of various knowledge domains such as humanities, technology, and environment in design of built environment.</p> <p>PO. 2. Principles & Theory After successful completion of Five-year degree program in B.Arch. student will be able to implement: Knowledge of principles of architecture & theoretical knowledge and its application in design.</p> <p>PO. 3. Creativity After successful completion of Five-year degree program in B.Arch. student will be able to develop: Creative and design thinking ability</p> <p>PO. 4. Practice After successful completion of Five-year degree program in B.Arch. student will be able to implement: Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.</p> <p>PO. 5. Collaborative Working After successful completion of Five-year degree program in B.Arch. student will be able to develop: Ability to communicate effectively and work in interdisciplinary groups</p> <p>PO. 6. Inclusivity After successful completion of Five-year degree program in B.Arch. student will be able to incorporate: Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.</p> <p>PO. 7. Technological Knowhow After successful completion of Five-year degree program in B.Arch. student will be able to implement: Ability to review, comprehend and report technological developments in the profession of architecture and construction.</p> <p>PO. 8. Ability to choose Area of Specialisation or Practise After successful completion of Five-year degree program in B.Arch. student will be able to: Judge one's area of interest and accordingly choose the field of practice.</p>

Course Outcomes as per Blooms Taxonomy

Bloom's Taxonomy




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Second Year B.Arch. SEM IV

2.6.1: Course Outcomes (B. Arch. 2019 Pattern)

Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Basic Design	✓	✓	✓	✓	✓	✓
Building Construction & Materials I	✓	✓		✓	✓	✓
Theory of Structures I	✓	✓	✓	✓	✓	
Architectural Graphics and Drawing I	✓	✓	✓	✓	✓	✓
History of Arch and Culture I	✓	✓	✓			
Communication Skills	✓	✓			✓	
Workshop I	✓	✓	✓	✓		✓
Audit Course		✓	✓			✓
First Year B.Arch. SEM - II						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design I		✓	✓	✓	✓	✓
Building Construction & Materials II	✓	✓		✓	✓	✓
Theory of Structures II	✓	✓	✓	✓	✓	
Architectural Graphics and Drawing II	✓	✓	✓	✓	✓	✓
History of Architecture and Culture II	✓	✓		✓	✓	
Fundamentals of Architecture	✓	✓				
Workshop II	✓	✓	✓	✓		✓
Audit Course						
Second Year B.Arch. SEM - III						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design II	✓	✓	✓	✓	✓	✓
Building Construction & Materials III	✓	✓		✓	✓	✓
Theory of Structures III	✓	✓	✓	✓	✓	
Computer Aided Drawing and Graphics	✓	✓	✓	✓	✓	✓
History of Architecture and Culture III	✓	✓		✓	✓	
Building Services I						
Climatology	✓	✓	✓	✓		
Audit Course		✓	✓			✓




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Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design III	✓	✓	✓	✓	✓	✓
Building Construction and Materials IV	✓	✓		✓	✓	✓
Theory of Structures IV	✓	✓	✓	✓	✓	
Environmental Science	✓	✓	✓	✓		
History of Architecture and Culture IV	✓	✓		✓	✓	
Building Services	✓	✓	✓	✓		✓
Site Survey and Analysis II	✓	✓	✓	✓	✓	✓
Audit Course						
Third Year B.Arch. SEM V						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design IV	✓	✓	✓	✓	✓	✓
Building Construction and Materials V	✓	✓		✓	✓	
Theory of Structures V	✓	✓	✓	✓	✓	
Landscape Architecture	✓	✓	✓	✓	✓	✓
Building Services III	✓	✓	✓	✓		
Working Drawing II	✓	✓	✓	✓	✓	✓
Audit Course						
Third Year B.Arch. SEM VI						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design IV	✓	✓	✓	✓	✓	✓
Building Construction and Materials V	✓	✓		✓	✓	
Theory of Structures V	✓	✓	✓	✓	✓	
Landscape Architecture	✓	✓	✓	✓	✓	✓
Building Services III	✓	✓	✓	✓		
Working Drawing II	✓	✓		✓	✓	
Audit Course	✓	✓		✓		

Fourth Year B.Arch. SEM VII						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design VI	✓	✓	✓	✓	✓	✓
Advanced Building Construction and Services I	✓	✓		✓	✓	
Urban Studies I	✓	✓	✓		✓	
Research in Architecture I	✓	✓	✓	✓	✓	✓
Elective II	✓	✓	✓	✓		
Quantity Surveying and Specification Writing I	✓	✓	✓	✓	✓	
Professional Practice I	✓	✓	✓	✓		
Audit Course						
Fourth Year B.Arch. SEM VIII						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design VI	✓	✓	✓	✓	✓	✓
Advanced Building Construction and Services I	✓	✓		✓	✓	
Urban Studies I	✓	✓	✓		✓	
Elective IV		✓	✓	✓	✓	✓
Elective V		✓	✓	✓	✓	✓
Quantity Surveying and Specification Writing I	✓	✓			✓	
Project Management		✓	✓	✓	✓	
Audit Course		✓	✓			✓
Fifth Year B.Arch. SEM IX						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Practical Training			✓	✓	✓	
Fifth Year B.Arch. SEM X						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design Project	✓	✓	✓	✓	✓	✓
Entrepreneurship Development	✓	✓	✓	✓		
Elective VI						

COURSE OUTCOME

SEMESTER – I

Course	Basic Design 1201901 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define the basic elements of Basic Design. 2. Explain the techniques of creativity, observation skills used in Basic Design. 3. Implement the various sources of inspiration for creativity which will be used in developing designing skills. 4. Explain Scale, proportion, anthropometry and spatial experience. 5. Hypotheses Role of experience, memory, fantasy, reality, imagination in design. 6. Compose Space making through basic elements of design.
Course	BUILDING CONSTRUCTION & MATERIALS - I 1201902 (P), 1201903 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define the different types of timber and its derivatives used in construction. 2. Categorize the different types of doors and windows in timber. 3. Implement the different type of roofing material for the structure. 4. Select the different types of timber trusses according to the span of the structure. 5. Judge the single and double floor construction according to the span of the structure. 6. Build the different types of timber staircase in the building.
Course	THEORY OF STRUCTURES I 1201904 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define Force, couple, Lami's theorem, stress, strains, Poisson's Ratio, shear stress. 2. Explain the law of forces, Varignon's principal, 3. Calculate Reactions in Beam at support, stress, strain, change in length, Young's modulus of Section, C.G, M.I of the section, the width of strip foundation.




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	<ol style="list-style-type: none"> 4. Draw Diagram of Shear Force and Bending Moment for Beam Element. 5. Evaluate Stress in Structure. 6. Write notes on Principle of loads Transfer in Load Bearing and Framed Structure.
Course	Architectural Graphics and Drawing I 1201905 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define elements of graphic techniques and presentation. 2. Interpret objects in projection systems used in Architectural drawing; such as Orthographic, Isometric and axonometric projections. 3. Sketch the building elements and the built environment. 4. Explain Basics Projection Systems in Drawings and graphics. 5. Measure existing structures of architectural importance and prepare relevant drawings to the scale. 6. Compose relevant drawings to the scale.
Course	History of Architecture and Culture I 1201906 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. State the ancient river valley civilization. 2. Discuss the tribal and nomadic architecture of India. 3. Sketch the different architectural styles in India. 4. Examine forms, building techniques and features of the Indian subcontinent. 5. Predict different social, political and geographical conditions. 6. Role-play the characters of historic monuments as well as people
Course	Communication Skills 1201907 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Identify various modes of communications. 2. Express their ideas textually, verbally & graphically. 3. Prepare for 3D modelling, formal letters, applications & group discussions.

	<ol style="list-style-type: none"> 4. Structure presentation skills by working on body language, appearance, gestures, voice modulation. 5. Experiment with digital tools to improve such skills. 6. Compose their presentations fluently with the effective use of all such modes.
Course	Workshop I 1201908 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define techniques used in making architectural model making. 2. Categorize different materials and model making techniques available in the market. 3. Choose the right materials for making models of various scales. 4. Correlate the model making in-process and communication of architectural design. 5. Experiment with various materials and techniques of model making by demonstration or presentation. 6. Compose proportionate (to the scale) models with a better understanding of the 3rd dimension.

SEMESTER – II

Course	Architectural Design I 1201909 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define design as a process of decision making in architectural design. 2. Interpret the experiential quality of space. 3. Execute the techniques of improving creativity in architectural design. 4. Appraise the study of spaces in architectural design. 5. Experiment with the concept of circulation in architectural design. 6. Create the project through graphical drawings, two and three-dimensional sketches, models, etc.
Course	Building Construction and Materials II 1201910 (P) 1201911 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Identify the different types of building elements as well as types of material used in construction. 2. Distinguish building materials with characteristics and Application Suitable for load-bearing construction. 3. Apply the different type of building material and construction techniques suitable load-bearing structures. 4. Distinguish between different types of foundation depending on soil condition. 5. Test the different types of materials used for building construction. 6. Build masonry walls, arches and lintels.
Course	Theory of Structures II 1201912
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Find Reactions in Beam, Bending Moment, Shear Force in Beam. 2. Explain Middle Third Rule, frames & Trusses. 3. Calculate/compute/determine Bending Stress, shear stress, Deflection in spanning members and member forces in truss 4. Explain Theory of Bending, Assumptions in Flexural theory and columns. 5. Evaluate axial forces in the frame. 6. Write a note on Long, short column, Euler's, Rankine's, Flexural Formula and terms in it.

Course	Architectural Graphics and Drawing II 1201913
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Select three-dimensional objects for graphical illustration. 2. Express Composite three-Dimensional objects and buildings formed by additive and interpenetrated solids using various graphical projection systems including sections. 3. Sketch Building elements and Perspective Drawing 4. Categorize perspective views of the building by any method of drawing perspectives. 5. Judge the Shades and shadows of typical building on plan, elevation and perspective. 6. Create different perspectives and Sociography on the building objects
Course	History of Architecture and Culture II 1201914
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. State the Indian architecture of the twentieth century in the context of its historical precedents. 2. Discuss the Islamic, Mughal, Post Mughal and Maratha architecture. 3. Sketch the forms and ornament of different architectural styles. 4. Correlate the different architectural styles. 5. Review the formal, structural and stylistic aspects of architectural development. 6. Investigates the different dynasties of India.
Course	Fundamentals of Architecture 1201915
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Identify distinguishing characteristics of architecture. 2. Associate those elements as guiding factors for building design. 3. Display respect for other professions. 4. Link aesthetic principles with structural systems at the initial level. 5. Experiment with Fundamentals of architecture- function, form and structure. 6. Adapt architectural design as a result of site, function, circulation, aesthetics & sustainability

Course	Workshop II 1201916
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none">1. Identify the techniques to make architectural models with various materials during the process of design and construction studios and as the final presentation to express ideas2. Express their visualization through digital modelling with basic software3. Choose the right materials such as balsa wood, polymers/ plastics, cork and the techniques to make architectural models4. Integrate model making with other subjects like design, BTM, and history, etc.5. Experiment with various materials, techniques and 3d software of model making.6. Adapt sufficient skills in making architectural models.

SEMESTER – III

Course	Architectural Design II 2201917
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define the role of socio-cultural and climatic context on evolution of design. 2. Understand the role of anthropometry while designing a space for specific function 3. To interpret the various expression of a building materials and construction technologies with respect to context. 4. To analyse the aesthetical and functional aspect of selected case study. 5. Critical evaluation of the proposed design with respect to site analysis, socio-cultural and climatic analysis 6. Design a residence with respect to context and function.
Course	Building Construction and Materials III 2201918 (P) 2201919 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <p>After successful completion, of course, the student will be able to:</p> <ol style="list-style-type: none"> 1. Define different types of concrete used for speedy construction. 2. Categorize different types of structural members in foundation and superstructure. 3. Choose suitable materials used for foundation and flooring. 4. Explain the process of installation for different building components such as flooring and fenestration. 5. Test the workability and compressive strength of RCC. 6. Construct different building types of RCC and non-Timber structural elements.
Course	Theory of Structure III 2201920
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Find fixed End moments for beam and Draw S.F.D, B.M.D 2. Explain the concept of continuous Beam. 3. Calculate FEM, loads on structural elements.

	<p>4. Explain Concrete Grade, curing, stripping of formwork, test on concrete.</p> <p>5. Evaluate Live load and wind load on the structure. 6. Design reinforcements of Slab, Beam, Column</p>
Course	Computer Aided Drawing and Graphics 2201921
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Select various presentation mediums and drawing formats for the architectural presentations 2. Express design ideas through architectural graphics representations. 3. Present architectural drawings using the manual as well as computer-aided drawing techniques. 4. Link presentation mediums to architectural presentations of different drawing formats. 5. Experiment Sketching techniques using various mediums to capture built or unbuilt spatial characters. 6. Produce architectural presentation drawings using the manual as well as computer-aided drawing techniques.
Course	History of Architecture and Culture III 2201922
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define temples, domestic architecture, public architecture, city planning, and the Acropolis. 2. Group Roman models, early church prototypes, Byzantine architecture. 3. Sketch Greek architecture, Roman architecture, Early Christian architecture, Gothic architecture. 4. Categorize development of European architecture through the historical period till 17th century AD. 5. Detect the relationship between religion and society with architecture. 6. Develop the drivers of change, revival, and evolution of architecture.
Course	Building Services I 2201923 (P), 2201924 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define systems of plumbing services in low, medium and high rise buildings and inculcate them the integration of services required in architectural design. 2. Explain the systems for hot and cold water supply in building premises. 3. Execute systems of hot water supply using conventional and non-conventional energy sources. 4. Calculate the storage and distribution of water.

	<ol style="list-style-type: none"> 5. Review the different plumbing materials available in the market and their usage. 6. Adapt the theory in designing the systems for sewage, Sullage, stormwater & and its disposal within or from building premises.
Course	Climatology 2201925 (P)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Identify the climatic elements which affect the built environment. 2. Associate those elements as guiding factors for building design. 3. Execute different climate-responsive passive design strategies. 4. Correlate climate factors & their effects on design options. 5. Grade the design options based on best suitability as per the climatic conditions. 6. Adapt the best suitable strategies for a building design for a particular climate zone.

SEMESTER – IV

Course	Architectural Design III 2201926 (P)
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Understand the role of context and site analysis in the design process. 2. Find out site suitability with reference to site analysis for various activities/functions. 3. Understand the role of socio-cultural, geographical and climatic context in evolution of design through settlement study. 4. Understand the design process with respect to site context through settlement study. 5. Document a study with the help of mapping, narratives, sketches and streetscapes. 6. Design a building with multiple built spaces of area up to 1000sqm. to 1500sqm.
Course	Building Construction and Materials IV 2201927 (P) 2201928 (SV)
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Write a note on counter fort Retaining wall, Joints in Water Tank. 2. Explain Reinforcement Detailing in the water tank. 3. Calculate internal stresses in Structural element. 4. Analyse structure for wind load. 5. Evaluate internal forces in member. 6. Design RCC Building, Compound stanchions.
Course	Theory of Structures IV 2201929
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Write a note on Under reinforced, Balanced, over the reinforced section. 2. Explain the advantages and Disadvantages of Steel Structures. a. Calculate Moment of Resistance, safe UDL.

	<ol style="list-style-type: none"> 3. Explain the classification of Steel sections with Diagram. 4. Evaluates internal Structural action in member. 5. Design cantilever slab, Beam, steel Girder and stanchions.
Course	Environmental Science 2201930
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Describe environment legislations and social aspects of the environment 2. Associate different ecosystems (Forest ecosystem, grassland ecosystem, desert ecosystem, aquatic ecosystem, etc.) with built structure and function of it. 3. Determine consumptive, productive use, social, ethical and aesthetical values of biodiversity 4. Analyse causes and effects of different sources of pollution. 5. Evaluate building and site development as per the green building rating systems. 6. Design 'Environment-Friendly Buildings'.
Course	History of Architecture and Culture IV 2201931
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define the architecture of the post-medieval Western World as a result of the cultural, political, and economic contexts. 2. Group Industrial revolution and the resulting architecture of eighteenth, and nineteenth-century in Europe. 3. Sketch architecture with specific reference to form, technology and ornament. 4. Categorize Revival architecture in Europe and America. 5. Experiment contemporary architecture of the world concerning historical precedents. 6. Create measured drawing and digital documentation of any site/ building/ part or features of a building related to the historical monuments.
Course	Building Services II 2201932 (P), 2201933 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define integration of services in lighting and electrification

	<ol style="list-style-type: none"> 2. Explain Low Voltage electrical systems and its integration in BMS 3. Execute electrical layout and lighting plan of a building interior 4. Calculate systems with special reference to levels of illumination for various uses and lumen method calculations. 5. Recommend the appropriate electrical wiring systems for small and large installations 6. Integrate Wi-Fi and LAN network EPABX & Telecommunication system.
Course	Site Survey and Analysis 2201934
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define Linear Measurements, measurements in horizontal plane, survey stations, survey lines open and closed traverse. 2. Summarize Natural and Manmade aspects (such as microclimate, topography, hydrology and vegetation), physical and sociocultural context of the site. Site Analysis of the above parameters, Site Synthesis and Site Suitability. 3. Examine Dumpy level, auto and tilting level, principle lines of a levelling instrument, the axis of the telescope, the axis of bubble tube, line of collimation, vertical axis recording by collimation plane, method and rise-fall method. 4. Explain Accessories used in plane tabling, methods of locating objects, methods of table orientation, Advantages and disadvantages. Use of Plano meter. 5. Review the contours plotting and profiles, interpolation of contours, contour interval, Characteristics of contours, understanding gradient, cut and fill for desired ground level, direct and indirect methods of contouring, block contour surveys. 6. Compose survey drawings, contours and grading for Site development, site characteristics, reading and interpreting survey drawings, understanding equipment and methods of surveying levelling.

SEMESTER – V

Course	Architectural Design IV 3201935
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define the concept and principles of universal design concerning the design of campuses developed in the past. 2. Summarize the Aesthetic aspects of Design (visual and experiential) along with spatial attributes (scale and proportions, volume, texture, light and shadows, etc.) and formal characteristics. (profile, base, corner, termination) 3. Present functional aspects of design (activity, use of space, adequacy and efficiency of space for a particular activity, essential adjacencies of spaces, ease and efficiency of circulation, light, ventilation, user-space relationship, vertical connections) 4. Integrate functions, structure and services in a building with relevant structural system and its resultant effect on visual form/character of the building. 5. Review location of site preferably in a different socio-geographic setting other than the Institute documents the study with emphasis on relevant aspects like climate, social structure, culture, architectural typology, construction technology, urban fabric, economy, etc. 6. Compose design of progressively complex spaces and buildings in terms of area, a specific community, typology, function etc., with emphasis on either scale or complexity of the project, or both.
Course	Building Construction and Materials 3201936 (P), 3201937 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Define Characteristics, Properties and types of wood & wood derivative materials, other panel materials, finishing material and their application in interior design 2. Relate single basement construction concerning retaining wall, shallow deep foundation and high rise construction 3. Determine the use of flat plate, flat slab, ribbed slab, waffle slab along with earthquake-resistant features,

	<p>reference of RCC drawing and architectural concept</p> <ol style="list-style-type: none"> 4. Categorize Demountable Partition construction using proprietary and non-proprietary systems using all available materials 5. Experiment Suspended Ceiling construction using proprietary and non-proprietary systems using all available materials 6. Create Furniture Design and assembly using timber and other material along with finishing and upholstery.
Course	Theory of Structures V 3201938
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Write a note on Doubly Reinforced Beam, Flat slab, coffered slab. 2. Differentiate between Different Method of Design Philosophy. 3. Calculate Stress in Pre-Stressed Beam, Loads on the column, 4. Explain Foundation on Black cotton soil 5. Evaluate Stability of Earth Retaining Structures. 6. Design Doubly Reinforced Beam T, L beam, columns, Foundations, Steel Girder, stanchions, etc.
Course	Landscape Architecture 3201939
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Understand the role of Landscape and identify the elements (Land, Water and Vegetation) of Landscape Design. 2. Discuss the intent and content of Landscape Design. 3. Integrate the design of open space and built space as a site planning through site analysis. 4. Correlate Landscape Design and Environmental Concern. 5. Reflect Site Planning Principles in Design Problem. 6. Develop Landscape Design Plan with Landscape Construction Details and Planting Policy.

Course	Elective – I (Contemporary Architecture) 3201940
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Recall the background development of architecture since the second half of the 20th century. 2. Associate Post 2000 CE trends in architecture 3. Presenting contemporary trends/approaches in architectural production. 4. Explain the architecture across the world. 5. Review critically and comment on contemporary architecture across the world 6. Write and present the seminar report to focus on local and regional issues in architecture
Course	Building Services – III 3201941 (P), 3201942 (SS)
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Identify the different components of the air-conditioning system. 2. Categorize the conventional and non-conventional air-conditioning system in the building. 3. Implement the different type of air conditioning system in the building. 4. Calculate the air-conditioning load. 5. Select the type of ventilation system for the building. 6. Design the AC layout for the building.
Course	Working Drawing – I 3201943
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Tabulate schedules of materials, finishes and hardware. 2. Associate I.S. Codes, internationally accepted norms, oblique conventions in working. 3. Apply mode of the graphical presentation along with I.S code in working drawing. 4. Examine working drawing as an important component of the tender document. 5. Recommend materials, finish & hardware. 6. Produce a set of working drawing for load-bearing structure along with civil & interior detailing

SEMESTER – VI

Course	Building Construction and Materials VI 3201946
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Define Characteristics, Properties and types of various steel materials and their application in buildings. 2. Interpret the different types of fencing and gates and it's detailed with their drawings. 3. Prepare the drawing of steel trusses and its connections concerning low rise medium span building. 4. Illustrate the steel structure construction for multi-storey building showing metal deck flooring. 5. Experiment locally available proprietary precast systems. 6. Adapt Earthquake resistant frame structures technique in their work.
Course	Theory of Structures VI 3201947
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Write notes on counter fort Retaining wall, Joints in Water Tank. 2. Explain Reinforcement Detailing in the water tank. 3. Calculate internal stresses in Structural element. 4. Analyse structure for wind load. 5. Evaluate internal forces in member. 6. Design RCC Building, Compound stanchions.
Course	Research in Architecture I 3201947
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Understand the need for research in Architecture and its application in design. 2. Identify issues related to architecture / built environment for research. 3. Predict the need for research on identified issues. 4. Integrate various concepts such as types of variables, measurement of variables, sample selection and ethics in research. 5. Categories various methodology of research.

	<ol style="list-style-type: none"> 6. Criticize and assess previous researches/literature studies. 7. Generate a research proposal.
Course	Elective II 3201949
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Select a particular subject of interest in the larger context of the scope of Architecture 2. Explore (theoretical as well as practical) the recent development in the selected subject 3. Prepare an initial report with observation, mapping and analysis of the particulars. 4. Link findings and its possible application in Architectural Design 5. Reflect the study in Architectural Design Project 6. Develop skills in the selected subject.
Course	Building Services IV 3201950 (P), 3201951 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Recall the fire safety codes, rules and regulation in the design. 2. Categorize the firefighting equipment. 3. Implement the different type of acoustical treatments for the room. 4. Calculate the reverberation time. 5. Select the noise control methods for airborne and structure-borne noises. 6. Design the Firefighting and Acoustical layout for the building.
Course	Working Drawing II 3201952
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Tabulate schedules of materials, finishes and hardware. 2. Associate I.S. Codes, internationally accepted norms, oblique conventions in working. 3. Apply mode of the graphical presentation along with I.S code in working drawing. 4. Examine working drawing as an important component of the tender document. 5. Recommend materials, finish & hardware. 6. Produce a set of working drawings for R.C.C./ Composite structure along with civil & interior detailing

SEMESTER – VII

Course	Architectural Design VI 4201953
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Identify the scale and complexity of function in a design. 2. Associate challenges of physical issues in design. 3. Implement field study outcomes into a real-life solution. 4. Investigate the collected data (case study, market survey, literature study, etc.) regarding the given design topic. 5. Support their claims related to their design and justify its advantages concerning functionality. 6. Propose a solution for various social, economic, physical, cultural, mix development community issues 7. Understood the Multifamily Residential Development for Mixed Use Development, Development of Communities 8. Understood the relation of Location/ Land values on Defining the Housing Product, Project being part of the City, Context, Green Initiatives, Efficient Planning of Services.
Course	Advance Building Construction and Services I 4201954
Course Outcomes	<ol style="list-style-type: none"> 1. Tabulate various advance structural systems for Multi basements and Swimming Pools. 2. Interpret the types of Roofing Systems, PEB Systems, Proprietary systems along with industrial flooring. 3. Implement various construction techniques of long-span structures, industrial buildings, swimming pools and multi basements. 4. Organize outline of the swimming pool and multi basement with all required construction details of natural lighting, ventilation and surface water disposal along with service details. 5. Review long-span structures with case study report and construction details. 6. Produce concept development of multi basement and swimming pool along with all required services and architectural details.
Course	Urban Studies I

	4201955
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. To enable students to understand the urban context of an Architectural Project beyond the site and understand the implications of various factors (such as traffic-transportation, socio-economics, urban landscape, spatial and visual aspects etc) influencing the development of an urban area. 2. To introduce the students to urban planning and design theories and concepts and enable them to undertake planning and design of large-scale land development. 3. Introduction to urban studies and the relevance of its learning in the Architecture profession. 4. Principles and theories of Urban Planning and Urban Design. 5. Various aspects of urban land. 6. Urban residential developments such as neighborhood planning, high-rise housing, slum rehabilitation, public housing, town planning schemes etc 7. Affordable housing: introduction and concepts.
Course	Research in Architecture II 4201956
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. To remember and revise the process of Research in Architecture and its value in design 2. To Identify the Research Methodology of identified Research issue. 3. To apply the understanding of research process to structure the research 4. To prepare a research proposal focussed on an issue related to the built environment. 5. To write a technical research paper 6. To present research paper in front of the audience.
Course	Elective III 4201957
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. To understand and remember particular subject of his/her liking in greater detail but in the larger context of overall scope of Architecture syllabus at undergraduate level. 2. To apply and analyse recent developments in the field of architecture from point of view of building design, services and construction.

	3.To analyse aspects such as disaster resistance, accessibility, retrofitting, conservation, architectural design theories
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Course	Quantity Surveying and Specification Writing I 4201958
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. To understand and remember estimation as an important Subject for Architecture. 2. To apply and analyse Different methods of Computing Quantities for items of work in a structure. 3. To evaluate quantities of various items of work for simple load bearing and R.C.C. framed structure and acquaint them with various types of estimates including standard method of measurement on building works and mode of measurements as adopted by I.S 1200. 4. To prepare estimate of the load bearing and R.C.C. project. 5. To understand and remember methodology of writing specifications with reference to building trades, materials, workmanship & performance of different items of work. 6. To analyse and evaluated the importance of specifications in contract document for any construction project.
Course	Professional Practice 4201959
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. To understand and remember the Role and Stature of an Architect in Society, and understand the duties, responsibilities, liabilities and ethics as a professional. 2. To understand and remember the Scope and Avenues of professional Architectural services, and the demands and Mode of professional practice 3. To apply and analyse the knowledge of an Architect's office administration, documentation and procedures of office and site management to enhance his comprehension and utility during his professional training in the field in Semester IX.

SEMESTER – VIII

Course	Architectural Design VII 4201960
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Identify the challenges of physical issues in design. 2. Associate the scale and complexity of function in a design. 3. Implement field study outcome into a real-life solution. 4. Investigate the collected data (case study, market survey, literature study etc.) regarding the given design topic. 5. Support their claims related to their design and justify its advantages concerning functionality. 6. Propose a solution for various social, economic, physical, and cultural Mix Development.
Course	Advanced Building Construction and Services II 4201961
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Tabulate various advance structural systems for Auditorium, curtain wall and high-rise buildings. 2. Produce concept development of Auditorium with balcony for 500 people with all required services and architectural details. 3. Organize an outline of the auditorium with the provision of the balcony and all required services. 4. Interpret the concepts of construction details of architectural features in design projects. 5. Implement various construction techniques of the auditorium and framing systems for curtain wall. 6. Review high-rise structures under different loading conditions.
Course	Urban Studies II 4201962
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. Memorize the Planning process and urban development, and concepts of urban economics.

	<ol style="list-style-type: none"> 2. Relate the Planning process with a relevant example with associated legislation. 3. Present identified the town as an example to study the town planning proposals for municipal council level town. 4. Categorize different aspects of urban fabric into various physical layers. 5. Reflect on various issues related to aspects such as environment, traffic and transportation etc. 6. Solve various urban issues through surveys and development control rules of local authorities.
Course	Elective IV 4201963
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. To understand and remember particular subject of his/her liking in greater detail but in the larger context of overall scope of Architecture syllabus at undergraduate level. 2. To apply and analyse recent developments in the field of architecture from point of view of building design, services and construction. 3. To analyse aspects such as disaster resistance, accessibility, retrofitting, conservation, architectural design theories.
Course	Elective V 4201964
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. To understand and remember particular subject of his/her liking in greater detail but in the larger context of overall scope of Architecture syllabus at undergraduate level. 2. To identify the methodology to complete the study of chosen subject. 3. To apply and analyse recent developments in the field of architecture 4. To analyse links of design with allied fields such as social sciences, visual art, performing arts, psychology, etc. 5. To justify the design / policy framework w. r. t. context, technology and standard data. 6. To develop his/her skills in a subject they may opt, to make their career in future.
Course	Quantity Surveying and Specification Writing II 4201965
Course Outcomes	After successful completion of course a student will be able:

	<ol style="list-style-type: none"> 1. To understand and remember estimation as an important Subject for Architecture. 2. To apply and analyse Different methods of Computing Quantities for items of work in a structure. 3. To evaluate for items of plumbing and sanitation work in a structure. 4. To evaluate quantities of various items of work for an Industrial structure and acquaint them for preparing rate analysis and indent of material. 5. To prepare estimate of the load bearing and R.C.C. project. 6. To understand and remember methodology of writing specifications with reference service installations of different items of work in construction. 7. To analyse and evaluated the importance of specifications in contract document for any construction project.
Course	Project Management 4201966
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ol style="list-style-type: none"> 1. Demonstrate a comprehensive understanding of the modern-day project environment and its complexities. 2. Explain the importance of project management in managing dynamic project environments. 3. Apply project management frameworks and knowledge areas in real-world scenarios. 4. Identify the roles and responsibilities of various stakeholders in a project. 5. Analyse the leadership skills required for a project manager to lead a successful project completion. 6. Evaluate and apply techniques to manage projects within budget and time constraints. 7. Assess and implement strategies to meet project quality standards. 8. Apply critical thinking and problem-solving skills to address project challenges and conflicts. 9. Evaluate project risks and develop risk mitigation strategies. 10. Demonstrate effective communication and collaboration skills required in a project management role.

SEMESTER – IX

Course	Practical Training 5201967
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none">1. Define the Role and Stature of an Architect in Society, and understand the duties, responsibilities, liabilities and ethics as a professional.2. Associate to IIA, IIID, IUDI, ITPI, ISOLA and such professional organizations3. Implement The Architects Act 1972 - The Council of Architecture, Rules and Regulations of the Council regarding Professional Liabilities & Code of Conduct.4. Illustrate Architectural Competitions - Pros and Cons - with Rules and Regulations of the Council.5. Evaluate Scope of comprehensive Services, Scale of Fees, and Office Management, Project management, Site supervision, Documentation, Taxation, Banking and Insurance.6. Write Architect's office administration, documentation and procedures of office and site management.

SEMESTER – X

Course	Architectural Design Project 5201968
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. To apply the knowledge gained in earlier years to full-fledged Architectural Design project of student's choice with a holistic approach 2. To identify issue with justification and research 3. To do programme formulation to solve the issue 4. To identify the suitable site and Land use 5. To evolve project brief for Design Development and Site Development 6. To develop design wrt. Context, identified issue, functional and aesthetical requirement.
Course	Entrepreneurship Development 5201969
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. To became a knowledgeable entrepreneur. 2. To do business management, Human Resource Management, Time Management and Finance management 3. To establish office set-up with Efficient Administration 4. To develop business model for successful professional development
Course	Elective VI 5201970
Course Outcomes	After successful completion of course a student will be able: <ol style="list-style-type: none"> 1. To understand and remember particular subject of his/her liking in greater detail but in the larger context of overall scope of Architecture syllabus at undergraduate level. 2. To apply and analyse recent developments in the field of architecture 3. To analyse links of design as a faculty with allied fields such as social sciences, visual art, performing arts, psychology, etc. 4. To develop his/her skills in a subject they may opt, to make their career in future.




PRINCIPAL
Pravara Rural College of
Architecture, Loni



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4. POs –COs Based on Bloom's Taxonomy – 2015 Pattern



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PROGRAMME OUTCOMES AND COURSE OUTCOMES 2015 PATTERN




**PRINCIPAL
Pravara Rural College of
Architecture, Loni**

PROGRAM OUTCOMES

Program	Bachelors of Architecture (B.Arch.)
Pattern	2015 Pattern
Program Outcomes	<p>After successful completion of Five-year degree program in B.Arch. student will be able to:</p> <ul style="list-style-type: none"> • To address and update the knowledge about the field • To develop the design ability • To impart knowledge about various aspects of architecture • To develop various skill sets related to the field of the architecture • To Demonstrate, and to understand of major concepts of architecture <ul style="list-style-type: none"> • Critical Thinking Demonstrate critical thinking through a self-reflective process of conceptualization and design thinking that is open to consideration of alternative perspectives by analysing, evaluating, and synthesizing ideas and information gathered through applied research grounded in information literacy. • Design and representation Implement complex two and three-dimensional graphic representation techniques using a wide variety of traditional and digital media, to reflect on and explain the architectural design process to a wide range of stakeholders. • Building Design Criteria The knowledge and ability to apply a design decision-making process through appropriate technical documentation in a manner that is client-centered, sustainable, aesthetic, cost effective, and socially responsible. • Building System Knowledge Incorporate a wide range of technical skills and professional architectural knowledge during schematic design to demonstrate a comprehensive application of life safety, accessibility, and sustainability issues in making sound design decisions across varying scales and levels of complexity.

- **Integrated Architectural Solutions**

Demonstrate the ability to synthesize a wide range of variables into an integrated design solution by employing appropriate building materials, building systems, and construction practices grounded in environmental stewardship and based on sound research and design decisions across varying scales of systems and levels of complexity.

- **Architectural Professional Practice**

Understanding how to collaboratively lead teams of stakeholders in the process of conceiving, developing and implementing solutions to problems in the built and natural environments, utilizing knowledge of the diverse forms and the dimensions of professional practice along with associated ethical, legal, financial and social responsibilities.

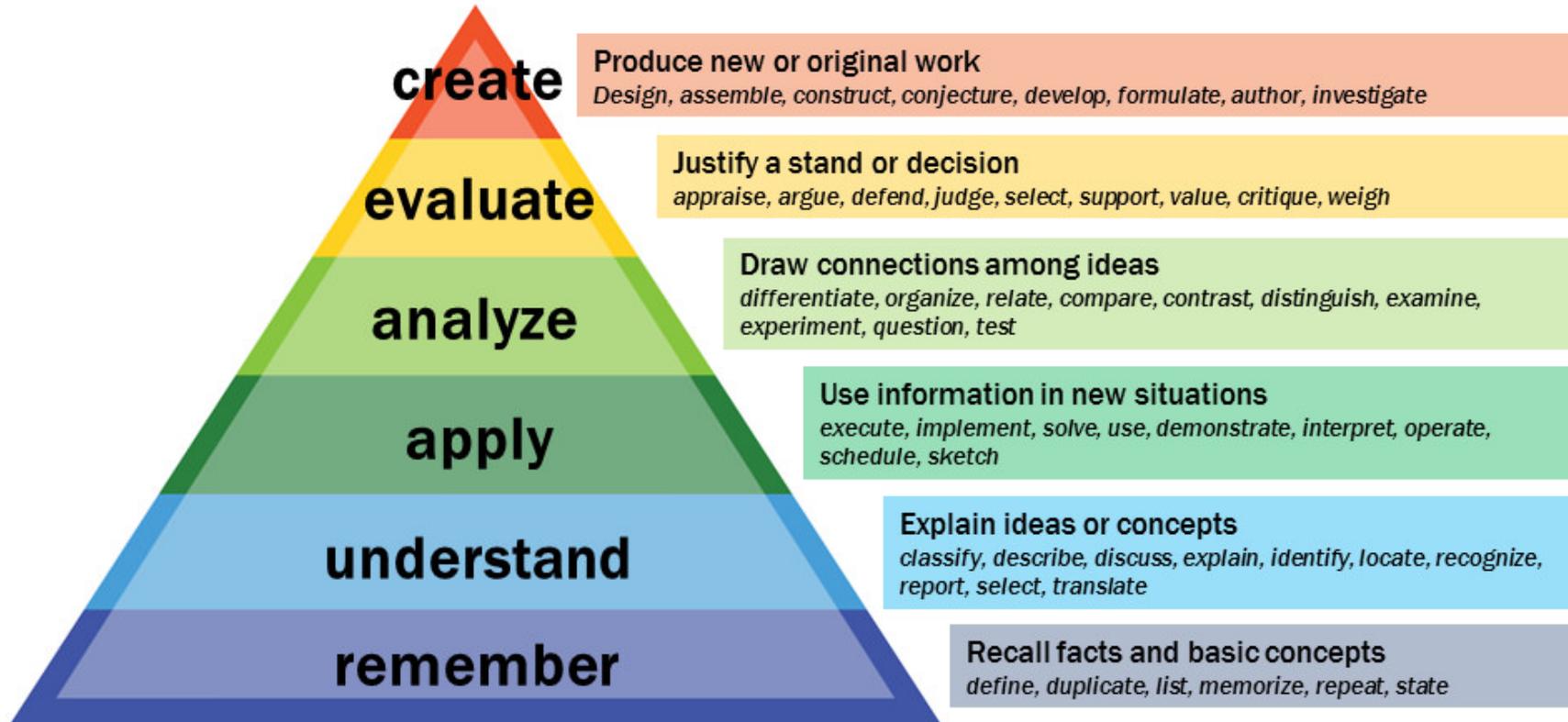
- **Quantitative Reasoning**

Apply math, physics, and logic as reasoning skills to investigate problems related to force resolution in structural systems, thermal heat gain and loss in buildings, material quantity estimates, budget management, and life-cycle cost analysis.

- **Information Literacy**

Demonstrate information literacy through applied research by raising clear and precise questions, using abstract ideas to clarify and express information, and considering diverse points of view, to reach well-reasoned conclusions and evaluate options against relevant design criteria, building standards, and program requirements.

Bloom's Taxonomy



2.6.1: Course Outcomes (B. Arch. 2015 Pattern)

Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design I	✓	✓	✓	✓	✓	✓
Building Technology & Materials I	✓	✓		✓	✓	✓
Theory of Structures I	✓	✓	✓	✓	✓	
Arch Drawing & Graphics I	✓	✓	✓	✓	✓	✓
Humanities	✓	✓	✓			
Introduction to Architecture	✓	✓			✓	
Workshop I	✓	✓	✓	✓		✓
First Year B.Arch. SEM - II						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design II		✓	✓	✓	✓	✓
Building Technology & Materials II	✓	✓		✓	✓	✓
Theory of Structures	✓	✓	✓	✓	✓	
Arch Drawing & Graphics II	✓	✓	✓	✓	✓	✓
History of Architecture I	✓	✓		✓	✓	
Climatology	✓	✓				
Workshop II	✓	✓	✓	✓		✓
Second Year B.Arch. SEM - III						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design III	✓	✓	✓	✓	✓	✓
Building Technology & Materials III	✓	✓		✓	✓	✓
Theory of Structures III	✓	✓	✓	✓	✓	
Arch Drawing & Graphics III	✓	✓	✓	✓	✓	✓
Building Services I	✓	✓	✓	✓		
History of Architecture II	✓	✓		✓	✓	
Surveying & Levelling	✓	✓	✓	✓		



Second Year B.Arch. SEM IV						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design IV	✓	✓	✓	✓	✓	✓
Building Technology & Materials IV	✓	✓		✓	✓	✓
Theory of Structures IV	✓	✓	✓	✓	✓	
Building Services II	✓	✓	✓	✓		
History of Architecture III	✓	✓		✓	✓	
Technical Communication	✓	✓	✓	✓		✓
Working Drawing I	✓	✓	✓	✓	✓	✓
Third Year B.Arch. SEM V						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design V	✓	✓	✓	✓	✓	✓
Building Technology & Materials V	✓	✓		✓	✓	
Theory of Structures V	✓	✓	✓	✓	✓	
Landscape Architecture I	✓	✓	✓	✓	✓	✓
Building Services III	✓	✓	✓	✓		
History of Architecture IV	✓	✓		✓	✓	
Working Drawing II	✓	✓	✓	✓	✓	✓
Third Year B.Arch. SEM VI						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design VI	✓	✓	✓	✓	✓	✓
Building Technology & Materials VI	✓	✓		✓	✓	
Theory of Structures VI	✓	✓	✓	✓	✓	
Landscape Architecture II	✓	✓	✓	✓	✓	✓
Building Services IV	✓	✓	✓	✓		
Contemporary Arch Seminar	✓	✓		✓	✓	
Elective I	✓	✓		✓		

Fourth Year B.Arch. SEM VII						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design VII	✓	✓	✓	✓	✓	✓
Advanced Building Technology and Services I	✓	✓		✓	✓	
Professional Practice I	✓	✓	✓	✓		
Urban Studies I	✓	✓	✓		✓	
Research in Architecture I	✓	✓	✓	✓	✓	✓
Quantity Surveying and Estimation I	✓	✓	✓	✓	✓	
Specification Writing I	✓	✓	✓	✓	✓	
Elective II	✓	✓	✓	✓		
Fourth Year B.Arch. SEM VIII						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Design VIII	✓	✓	✓	✓	✓	✓
Advanced Building Technology and Services II	✓	✓		✓	✓	
Professional Practice II	✓	✓	✓	✓		
Urban Studies II	✓	✓	✓		✓	
Research in Architecture II	✓	✓	✓	✓	✓	✓
Quantity Surveying and Estimation II	✓	✓	✓	✓	✓	
Specification Writing II	✓	✓	✓	✓	✓	
Elective III	✓	✓	✓	✓		
Fifth Year B.Arch. SEM IX						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Practical Training			✓	✓	✓	
Fifth Year B.Arch. SEM X						
Name of the Course	Remember	Understand	Apply	Analyse	Evaluate	Create
Architectural Design Project	✓	✓	✓	✓	✓	✓
Elective IV	✓	✓	✓	✓		

COURSE OUTCOME

SEMESTER – I

Course	Design I 1201501 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the fundamentals and principles of basic design • To apply, analyse and evaluate the basic design principles in architectural design. • To create Architectural design presentation drawing portfolio as a creative process of choice making and statement of intent.

Course	BUILDING TECHNOLOGY & MATERIALS - I 1201502 (SV), 1201503(PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the basic building elements, their function and behaviour under various conditions with specific reference to load bearing construction. • To analyse and evaluate principles of construction and materials suitable for load bearing construction. • To develop and analytical and logical sequence in thinking about structural aspects of architecture. • To create building construction drawings.

Course	THEORY OF STRUCTURES I 1201504 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand Applied Mechanics as an important Subject for Architecture. • To Understand, remember and apply Different Systems of Forces and their Equilibrium and that a Building is a System of Forces in Equilibrium. • To analyse and evaluate Concepts of Support, Support Reactions, Beams, Loads, Bending and Shear



Course	ARCHITECTURAL DRAWING AND GRAPHICS I 1201505 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember architectural drawing techniques and the language of graphics, its vocabulary and grammar such as scale, annotations, labelling and dimensioning. • To apply various techniques of sketching for recording, studying and communicating objects, buildings and building components. • To analyse and evaluate simple three-dimensional objects and building components. • To create Technical Drawings, using various graphic projection systems such as orthography, Isometric and Axonometric projections.

Course	HUMANITIES 1201506 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand, remember and apply important aspects of humanities in human settlements and architecture

Course	INTRODUCTION TO ARCHITECTURE 1201507(SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand the profession of architecture and its distinguishing characteristics with respect to other professions, trades and businesses. • To understand and remember scope of Architecture as a discipline and Architect as a professional. • To understand and remember fundamentals of architecture- function, form and structure, and their integration. • To evaluate generators of architectural design- site, function, circulation, context, structural system and materials, aesthetic principles, sustainability.

Course	WORKSHOP I 1201508 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none">• To understand, remember, and apply various materials and techniques for making Architecturalmodels.• To create Architectural models for study and presentation and evaluation of architectural design project.

SEMESTER – II

Course	Design II 1201509 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand, remember and apply the iterative design process and various channels of creativity. • To analyse and evaluate design of small scale built structure. • To create Architectural design presentation drawing portfolio as a creative process

Course	BUILDING TECHNOLOGY AND MATERIALS II 1201510(SV), 1201511(PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand, remember the basic building elements, their function and behaviour under various conditions with specific reference to timber construction. • To analyse and evaluate the basic principles of construction and materials suitable for load bearing construction. • To develop an analytical and logical sequence in thinking about structural aspects of architecture. • To create building construction drawings.

Course	THEORY OF STRUCTURES II 1201512 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the deflection effect of loads on Beams. • To understand and remember Combined Stresses on Eccentrically Loaded Columns and apply the same to the Design of Foundations of Load Bearing Walls. • To analyse and evaluate the forces in a Frame. • To analyse and evaluate the stresses in various Building Elements like Columns and Beams.

Course	ARCHITECTURAL DRAWING AND GRAPHICS II 1201513 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand, remember, and express Composite three-Dimensional objects and buildings formed by additive and interpenetrated solids using various graphical projection systems including sections. • To analyse and evaluate different technique of graphical documentation of a built structure/environment through measured drawing/s. And will be able to create their design through various sketching techniques.

Course	HISTORY OF ARCHITECTURE I 1201514 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand and remember the architectural development with reference to time, space and people. • To analyse and evaluate different architectural styles development with reference to time, space and people

Course	CLIMATOLOGY 1201515 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand and remember climate as a determinant of architectural design and to enable the students to evolve climate responsive design.

Course	WORKSHOP II 1201516 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand, remember, and apply various materials and techniques for making Architectural models. • To understand and remember computer aided 3D modelling for design projects. • To create Architectural models for study and presentation and evaluation of architectural design project.

SEMESTER – III

Course	DESIGN III 2201517 (SV)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none">• To understand, remember and apply the iterative design process and various channels of creativity.• To analyse and evaluate design of medium scale multicellular multi-level built structures.• To create Architectural design presentation drawing portfolio as a creative process

Course	BUILDING TECHNOLOGY AND MATERIALS III 2201518(SV), 2201519(PP)
Course Outcomes	After successful completion of course a student will be able to Understand, Remember, Analyse and evaluate: <ul style="list-style-type: none">• Various types of deep and shallow foundations used in various types of soils for framed construction• Medium span timber roofs between 6m to 12m.• Basic principles of RCC construction• Other components of a building project

Course	THEORY OF STUCTURES III 2201520 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember types of deep and shallow foundations used in various types of soils for framed construction • To understand and remember the concept of Buckling and Crushing in Columns. • To understand and remember Fixity at supports and Concept of Continuity over supports and Negative Bending Moments • To understand and remember strength of one Material - Steel and the use of these material as Beams, and Columns or as members of a Truss. • To analyse and evaluate principles of Load Bearing Construction, Use of Arches and Lintels. • To Design By Working Stress Method

Course	BUILDING SERVICES I 2201521 (SS), 2201522(PP)
Course Outcomes	<p>After successful completion of course a student will be able to understand, remember, apply and evaluate:</p> <ul style="list-style-type: none"> • Commonly used systems for Sewage, Sullage & and Garbage disposal • Systems for hot and cold water supply in a building premises.

Course	HISTORY OF ARCHITECTURE II 2201523 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the architectural development with reference to time, space and people. • To analyse and evaluate different architectural styles development with reference to time, space and people

Course	ARCHITECTURAL DRAWING AND GRAPHICS III 2201524(SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • Understand, remember, apply and analyse the perspective projections, use of shades and shadows, and various architectural presentation and rendering techniques. • To create/ communicate an architectural idea / proposal in a legible and effective manner. • To create simple architectural drawing using CAD

Course	SURVEYING AND LEVELLING 2201525 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To relate the practical, fieldwork, and make it appropriate for the profession of Architecture and execution of building projects. • To understand and remember locating the object positions in horizontal and vertical plane with desired accuracy as needed for architectural profession. • To apply and analyse modern gadgets available for precise work in the field and use of computer software in this subject. • To create and interpret survey drawings.

SEMESTER – IV

Course	DESIGN IV 2201526(SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To comprehend site specific stimuli through responses to physical, climate, visual, cultural contexts through indigenous construction, technology, building materials, structure etc. • To understand, remember and apply the iterative design process and various channels of creativity. • To analyse and evaluate design of medium scale multicellular multi-level built structures. • To create Architectural design presentation drawing portfolio as a creative process

Course	BUILDING TECHNOLOGY AND MATERIALS IV 2201527(SV), 2201528(PP)
Course Outcomes	<p>After successful completion of course a student will be able to Understand, Remember, Analyse and evaluate:</p> <ul style="list-style-type: none"> • RCC frame construction and will be able to gain basic understanding of ferrocement construction. • Different building materials related to RCC construction

Course	THEORY OF STRUCTURES IV 2201529 (PP)
Course Outcomes	<p>After successful completion of course a student will be able to understand, remember, apply, analyse evaluate:</p> <ul style="list-style-type: none"> • Wood as a Material • Limit State Method. • Reinforced Cement Concrete as a Material. • And be able to Design Simple Compressive and Flexural Members in R.C.C.

Course	BUILDING SERVICES II 2201530(SS), 2201531 (PP)
Course Outcomes	After successful completion of course a student will be able to understand, remember, apply and analyse: <ul style="list-style-type: none"> • The Building Services in low, medium and high rise buildings and inculcate in them the integration of services in architectural design. This term aims at following two services: <ul style="list-style-type: none"> ✓ Lighting and electrification. ✓ Introduction to rainwater harvesting and alternative energy sources.

Course	HISTORY OF ARCHITECTURE III 2201532 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand and remember the architectural development with reference to time, space and people. • To analyse and evaluate different architectural styles development with reference to time, space and people

Course	TECHNICAL COMMUNICATION 2201533 (SS)
Course Outcomes	After successful completion of course a student will be able to understand, remember, apply, analyse: <ul style="list-style-type: none"> • Various modes of communication such as graphical, textual, oral and help them to develop various soft skills.

Course	WORKING DRAWING I 2201534 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand and remember the significance of working drawings from the point of view of execution of the work on site • To apply, analyse and evaluate working drawing as important component of tender documents. • To create working drawings of an architectural project

SEMESTER – V

Course	DESIGN V 3201535 (SV)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none">• To comprehend site specific stimuli through responses to physical, climate, visual, cultural contexts through indigenous construction, technology, building materials, structure etc.• To understand, remember and apply the iterative design process and various channels of creativity.• To analyse and evaluate design of medium scale campus with multicellular multi-level built structures.• To design buildings with different functions, requiring spaces of different scales and employing suitable structural systems.• To design Campus comprising of more than one building and evolving design in response to the site, its characteristics and the context's

Course	BUILDING TECHNOLOGY AND MATERIALS V 3201537 (SV), 3201536 (PP)
Course Outcomes	After successful completion of course a student will be able to understand, remember, apply, analyse, evaluate: <ul style="list-style-type: none">• Variations in frame structure with options of different types of slab like flat slab, ribbed and waffle slabs etc. along with pre-stressed RCC technology.• Various structural system to be employed for long span structures.• Materials and technology of assembling interior elements like partitions, suspended ceiling, furniture units etc.

Course	THEORY OF STRUCTURES V 3201538 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand, remember, apply, analyse and evaluate: <ul style="list-style-type: none"> ✓ The complex rcc structural elements. ✓ Different types of staircases. ✓ Types of beams like doubly reinforced, 't' and 'l' ✓ Different structural elements like pre-stressed construction and flat slabs. ✓ Columns in multi-storeyed buildings. ✓ Types of foundations and design of isolated column footing. ✓ Need of retaining wall and design of gravity type retaining wall. • To design of continuous equal, span slab by i.s.456 factors.

Course	LANDSCAPE ARCHITECTURE I 3201539 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the Landscape Architecture, its scope, the elements and principles of landscape design and role of landscape elements in design of outdoor environments on the site. • To apply, analyse and evaluate the various traditions in designed and vernacular landscapes. • Analyse and Evaluate site and integrated design of open and built spaces. • To create awareness using Landscape design as a tool to address environmental concerns in Architecture. • To design a landscape design project.

Course	BUILDING SERVICES III 3201540(SS), 3201541(PP)
Course Outcomes	<p>After successful completion of course a student will be able to understand, remember, apply and analyse:</p> <ul style="list-style-type: none"> • Building services as an inclusive part of architectural design process, • Technical and design aspects of natural ventilation and HVAC • Technical and environmental aspects as principles of working, components, construction and materials of natural ventilation and HVAC system • Functional and aesthetical aspects of services layout for comprehensive architectural design

Course	HISTORY OF ARCHITECTURE IV 3201542 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the architecture and architectural discourse in the nineteenth and twentieth centuries and the various factors like industrialization, modernity, wars, global-local concerns, etc. that shaped it. • To analyse and Evaluate Architectural works and the contribution and role of individual designers that distinctively marked the course of architecture in the nineteenth and twentieth centuries.

Course	WORKING DRAWING II3201543 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember idea of Design Development and detailing and its relevance in converting 'concept design' to working drawing and hence the realization of design on site. • To apply, analyse and evaluate working drawing as important component of tender documents and execution of a building contract. • To Apply standard methods, conventions, drawing annotations including International standards, IS codes, its application in working drawing set with material and component and schedules. • To create working drawings of an architectural project.

SEMESTER – VI

Course	DESIGN VI 3201544 (SV), 3201545 (PP)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none">• To comprehend site specific stimuli through responses to physical, climate, visual, cultural contexts through indigenous construction, technology, building materials, structure etc.• To understand, remember and apply the iterative design process and various channels of creativity.• To analyse and evaluate design of medium scale campus with multicellular multi-level built structures.• To Design a building by stacking of different functions vertically and addressing various concerns such as coordinating various building services, vertical circulation, basement parking, and structural grids with introduction to disaster management design strategies/techniques and universal design.

Course	BUILDING TECHNOLOGY AND MATERIALS VI 3201546(SV), 3201547(PP)
Course Outcomes	After successful completion of course a student will be able to understand, remember, apply, analyse, evaluate: <ul style="list-style-type: none">• The construction of basement along with its waterproofing, provision for access and ventilation details and the construction of different types of retaining walls and the detailing of the same.• Construction of earthquake resistant frame structures.• Concept of modular co-ordination and industrialized building construction along with precast technology.• Steel structures and detailing of trusses and deck floors

Course	THEORY OF STRUCTURES VI 3201548 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember Different types of liquid retaining structures and their structural detailing. • To understand and remember the Feel for Structural Principles and their Relates to Building Design • To understand and remember the Concept that “Every Structure is a System that Forms the Space” and the fact that Architecture and Structure cannot be conceived independently. • To understand and remember the fact that Structural Engineering is a Specialist Discipline and that the Architect has to appreciate the consultant’s concern and make an informed choice about the most appropriate Structural System for his Building with Reasonable understanding of its Economic and Operational Implications. • Apply, Analyse and evaluate the Mathematical logic that would enable him to Design the Structural System for Ground +2l Storey R.C.C Structure and a medium span Factory Building in steel. • To analyse and evaluate the Structural System of their own design and execute the same. • To Design of Steel structure elements by L.S.M.

Course	LANDSCAPE ARCHITECTURE II 3201549 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To use Landscape design as a tool to address environmental concerns in Architecture. • To understand, remember the application of site planning principles in integrated design of open and built spaces. • Analyse and Evaluate designs by Master Landscape Architects and their contribution to built environment. • Analyse and Evaluatesite and integrated design of open and built spaces. • To create awareness using Landscape design as a tool to address environmental concerns in Architecture. • To design a landscape design project.

Course	BUILDING SERVICES IV 3201550 (SS), 3201551 (PP)
Course Outcomes	After successful completion of course a student will be able to understand, remember, apply and analyse: <ul style="list-style-type: none"> • Building services as an inclusive part of architectural design process • Fire safety measures and aspects of good acoustics and treatment in comprehensive architectural design

Course	CONTEMPORARY ARCHITECTURE SEMINAR 3201552 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand and remember contemporary trends/approaches in architectural production. • To analyse and evaluate contemporary trends in terms of design, practices, its perception, appreciation and critical discourses. • To position him/herself in today's time to be able to establish an argument and testify the same.

Course	ELECTIVE I – INTERIOR DESIGN 3201553 (SS)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none"> • To understand and remember the relationship between Architecture and Interior Design as a Space making disciplines. • To understand and remember the thoughtful design of interior spaces & how it can increase efficiency and add depth and meaning to the built environment. • To analyse the connection that the subject of Interior design has with other Design Disciplines like Conservation, Preservation, Restoration, Sustainability, Art, Product design and Graphic design • To position him/herself in today's time to be able to establish an argument and testify the same.

SEMESTER – VII

Course	DESIGN VII 4201554 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • Analyse and evaluate the challenges of physical issues • Analyse and Evaluate spatial and visual language of their project with reference to the urban context and setting of their site • To Design complex architectural issues at this stage addressing various challenges in terms of scale, complexity of functions, social economic context, traffic and vehicular movement and so on.

Course	ADVANCED BUILDING TECHNOLOGY AND SERVICES I 4201555 (SV)
Course Outcomes	<p>After successful completion of course a student will be able to understand, remember, analyse, evaluate:</p> <ul style="list-style-type: none"> • Advanced structural systems, materials and services required in buildings with complex and special requirements and to integrate the same in design.

Course	PROFESSIONAL PRACTICE I 4201556 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the Role and Stature of an Architect in Society, and understand the duties, responsibilities, liabilities and ethics as a professional. • To understand and remember the Scope and Avenues of professional Architectural services, and the demands and Mode of professional practice • To apply and analyse the knowledge of an Architect's office administration, documentation and procedures of office and site management to enhance his comprehension and utility during his professional training in the field in Semester IX

Course	URBAN STUDIES - I 4201557 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the urban context of an Architectural Project beyond the site and also the implications of various factors (such as traffic-transportation, socio economics, urban landscape, spatial and visual aspects etc.) influencing the development of an urban area. • To apply and evaluate urban planning and design theories and concepts and enable him her to undertake planning and design of large scale land development

Course	RESEARCH IN ARCHITECTURE I 4201558 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember Research in Architecture and its value in design • To apply the understanding of research process to analyse and to evaluate research proposal. • To prepare a research proposal.

Course	QUANTITY SURVEYING AND ESTIMATION - I 4201559 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember estimation as an important Subject for Architecture. • To apply and analyse Different methods of Computing Quantities for items of work in a structure. • To evaluate quantities of various items of work for simple load bearing and R.C.C. framed structure and acquaint them with various types of estimates including standard method of measurement on building works and mode of measurements as adopted by I.S 1200. • To prepare estimate of the load bearing and rcc project.

Course	SPECIFICATION WRITING I 4201560 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember methodology of writing specifications with reference to building trades, materials, workmanship & performance of different items of work. • To analyse and evaluated the importance of specifications in contract document for any construction project.

Course	ELECTIVE II - DESIGN & TECHNOLOGY ELECTIVE 4201561 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember particular subject of his/her liking in greater detail but in the larger context of overall scope of Architecture syllabus at undergraduate level. • To apply and analyse recent developments in the field of architecture from point of view of building design, services and construction. • To analyse aspects such as disaster resistance, accessibility, retrofitting, conservation, architectural design theories

SEMESTER – VIII

Course	DESIGN VII 4201562 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • Analyse and evaluate the challenges of physical issues • Analyse and Evaluate spatial and visual language of their project with reference to the urban context and setting of their site • To Design complex architectural issues at this stage addressing various challenges in terms of scale, complexity of functions, social economic context, traffic and vehicular movement and so on.

Course	ADVANCED BUILDING TECHNOLOGY AND SERVICES II 4201563 (SV)
Course Outcomes	<p>After successful completion of course a student will be able to understand, remember, analyse, evaluate:</p> <ul style="list-style-type: none"> • Advanced structural systems, materials and services required in buildings with complex and special requirements and to integrate the same in design.

Course	PROFESSIONAL PRACTICE II 4201564 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the Role and Stature of an Architect in Society, and understand the duties, responsibilities, liabilities and ethics as a professional. • To understand and remember the Scope and Avenues of professional Architectural services, and the demands and Mode of professional practice • To apply and analyse the knowledge of an Architect's office administration, documentation and procedures of office and site management to enhance his comprehension and utility during his professional training in the field in Semester IX

Course	URBAN STUDIES-II 4201565 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember the process of planning and urban development • To understand urban economics • To apply and evaluate The legislations associated to the process of planning and development.

Course	RESEARCH IN ARCHITECTURE II 4201566 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember Research in Architecture and its value in design • To apply the understanding of research process to analyse and to evaluate research proposal. • To prepare a research proposal focussed on an issue related to the built environment. • To create research report in a technical manner.

Course	QUANTITY SURVEYING AND ESTIMATION - II 4201567 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember estimation as an important Subject for Architecture. • To apply and analyse Different methods of Computing Quantities for items of work in a structure. • To evaluate for items of plumbing and sanitation work in a structure. • To evaluate quantities of various items of work for an Industrial structure and acquaint them for preparing rate analysis and indent of material. • To prepare estimate of the load bearing and rcc project.

Course	SPECIFICATION WRITING I 4201568 (PP)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember methodology of writing specifications with reference service installations of different items of work in construction. • To analyse and evaluated the importance of specifications in contract document for any construction project.

Course	ELECTIVE III – ALLIED ELECTIVE 4201569 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember particular subject of his/her liking in greater detail but in the larger context of overall scope of Architecture syllabus at undergraduate level. • To apply and analyse recent developments in the field of architecture • To analyse links of design as a faculty with allied fields such as social sciences, visual art, performing arts, psychology, etc. • To develop his/her skills in a subject they may opt, to make their career in future.

SEMESTER – IX

Course	PRACTICAL TRAINING 5201570 (SV)
Course Outcomes	After successful completion of course a student will be able: <ul style="list-style-type: none">• To apply the cumulative understanding of four years of learning to undertake practical training under the guidance of experts / professionals.• To analyse the architect's office management, process of design, execution and management of a project.• To evaluate and create variety of Architectural/ Landscape./ Interior Design Projects, etc.




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SEMESTER – X

Course	ELECTIVE IV 5201570 (SS)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To understand and remember particular subject of his/her liking in detail but in the larger context of overall scope of Architecture syllabus at undergraduate level. • To develop his/her skills in a subject they may opt, to make their career in future. • To apply and analyse "Management Concepts" Acknowledging the fact that the Architectural Practice is a team effort and understanding the necessity of management in this field

Course	ARCHITECTURAL DESIGN PROJECT 5201571 (SV)
Course Outcomes	<p>After successful completion of course a student will be able:</p> <ul style="list-style-type: none"> • To apply the knowledge gained in earlier years to full-fledged Architectural Design project of student's choice with a holistic approach including background research, programme formulation, site selection investigations and design demonstration.

Attainment of Programme outcomes, Programme specific outcomes and course outcomes

First Year B.Arch. SEM - I								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design I	✓	✓	✓	✓	✓			✓
Building Technology & Materials I		✓	✓	✓	✓		✓	✓
Theory of Structures I	✓		✓	✓	✓		✓	
Arch Drawing & Graphics I	✓	✓						✓
Humanities	✓							✓
Introduction to Architecture	✓		✓	✓				✓
Workshop I	✓	✓		✓				✓
First Year B.Arch. SEM - II								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design II	✓	✓	✓	✓	✓			✓
Building Technology & Materials II(✓	✓	✓	✓		✓	✓
Theory of Structures	✓		✓	✓	✓		✓	
Arch Drawing & Graphics II	✓	✓						✓
History of Architecture I	✓	✓	✓	✓	✓			✓
Climatology	✓	✓	✓	✓	✓		✓	✓
Workshop II	✓	✓		✓				✓

Second Year B.Arch. SEM – III								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design III	✓	✓	✓	✓	✓			✓
Building Technology & Materials III		✓	✓	✓	✓		✓	✓
Theory of Structures III	✓		✓	✓	✓		✓	
Arch Drawing & Graphics III	✓	✓						✓
Building Services I	✓	✓	✓	✓	✓		✓	✓
History of Architecture II	✓	✓	✓	✓	✓			✓
Surveying & Levelling								
Second Year B.Arch. SEM IV								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design IV	✓	✓	✓	✓	✓			✓
Building Technology & Materials IV		✓	✓	✓	✓		✓	✓
Theory of Structures IV	✓		✓	✓	✓		✓	
Building Services II	✓	✓	✓	✓	✓		✓	✓
History of Architecture III	✓	✓	✓	✓	✓			✓
Technical Communication	✓	✓	✓			✓		✓
Working Drawing I	✓	✓	✓	✓	✓	✓	✓	✓

Third Year B.Arch. SEM V								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design V	✓	✓	✓	✓	✓			✓
Building Technology & Materials V		✓	✓	✓	✓		✓	✓
Theory of Structures V	✓		✓	✓	✓		✓	
Landscape Architecture I	✓	✓	✓	✓	✓			✓
Building Services III	✓	✓	✓	✓	✓		✓	✓
History of Architecture IV	✓	✓	✓	✓	✓			✓
Working Drawing II	✓	✓	✓	✓	✓	✓	✓	✓
Third Year B.Arch. SEM VI								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design VI	✓	✓	✓	✓	✓		✓	✓
Building Technology & Materials VI		✓	✓	✓	✓		✓	✓
Theory of Structures VI	✓		✓	✓	✓		✓	
Landscape Architecture II	✓	✓	✓	✓	✓			✓
Building Services IV	✓	✓	✓	✓	✓		✓	✓
Contemporary Arch Seminar	✓	✓	✓	✓	✓			✓
Elective I	✓	✓	✓	✓	✓			✓

Fourth Year B.Arch. SEM VII								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design VII	✓	✓	✓	✓	✓		✓	✓
Advanced Building Technology and Services I	✓	✓	✓	✓	✓		✓	✓
Professional Practice I	✓			✓	✓	✓	✓	✓
Urban Studies I	✓	✓	✓	✓	✓		✓	✓
Research in Architecture I	✓	✓	✓	✓	✓		✓	✓
Quantity Surveying and Estimation I	✓			✓	✓	✓	✓	✓
Specification Writing I	✓			✓	✓	✓	✓	✓
Elective II	✓	✓	✓	✓	✓	✓	✓	✓
Fourth Year B.Arch. SEM VIII								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Design VIII	✓	✓	✓	✓	✓		✓	✓
Advanced Building Technology and Services II	✓	✓	✓	✓	✓		✓	✓
Professional Practice II	✓			✓	✓	✓	✓	✓
Urban Studies II	✓	✓	✓	✓	✓		✓	✓
Research in Architecture II	✓	✓	✓	✓	✓		✓	✓
Quantity Surveying and Estimation II	✓			✓	✓	✓	✓	✓
Specification Writing II	✓			✓	✓	✓	✓	✓
Elective III	✓	✓	✓	✓	✓	✓	✓	✓

Fifth Year B.Arch. SEM IX								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Practical Training	✓	✓	✓	✓	✓	✓	✓	✓
Fifth Year B.Arch. SEM X								
Name of the Course	PO. 1	PO. 2	PO. 3	PO. 4	PO. 5	PO. 6	PO. 7	PO. 8
	Critical Thinking	Design and representation	Building Design Criteria	Building System Knowledge	Integrated Architectural Solutions	Architectural Professional Practice	Quantitative Reasoning	Research
Architectural Design Project	✓	✓	✓	✓	✓	✓	✓	✓
Elective IV	✓	✓	✓	✓	✓	✓	✓	✓




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