1. VISIONS & MISSIONS OF THE INSTITUTE

H.O. Badambadi, Cuttack - 753012 College : Plot No.II/1/A, Sector-, C.D.A, Cuttack 753014
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VISIONS

- To emerge as a prominent centre of learning, research and innovation in the field of Architecture by providing quality education.
- To carve a niche in the field of Architecture, Design and Planning by encompassing progressive technological know-how, being rooted to the cultural ethos and value system and guided by the principles of integrity, creativity and quality.
- To contribute to the nation through excellence in technical/professional education and promote the youth as nation builders
- To inculcate critical and innovative thinking among faculty and students
- To focus on values of tolerance and compassion among students
- Respecting the dignity of labour and selfless service.

MISSIONS

- To promote new knowledge by training students to develop critical thinking besides all round development of personality in the UG and PG streams

- To provide educational programs that nurture creativity and intellectual spirit and promote student achievement and scholarly inquiry to meet the professional challenges, international educational standards and needs of our diverse community.

- To progress as a collaborative between profession and education and promote capacity building by undertaking advanced programs in emerging areas of architecture and planning.

- To undertake applied research for creating cutting edge knowledge in the areas related to the built environment and develop integrated consultancy and research cell.

- To sensitize students to environmental values throughout the education program and provide resources and knowledge for indigenous and innovative sustainable building principles and practices.

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2. CO, PO and PSO for B.Arch

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COURSE OUTCOMES FOR B.ARCH

1st SEMESTER

After completion of **Applied Mathematics** students should be able to		
AH113-Applied Mathematics	**CO1**	Understand the basic idea on geometrical shapes and to learn about to use the formula to find the perimeter, area & volume of the different geometrical shapes required.
	CO2	Find the length of curve, maxima and minima point for a curve and also helps to find the area under a curve
	CO3	Transfer the physical model into mathematical model and to solve this with the different methods to find the desired result.
	CO4	Organize, manage, presenting and analyzing the data collect from the survey or case study
After completion of **Environmental Studies** students should be able to		
AR123-Environmental Studies	**CO1**	Understand Ecology, identify different ecosystems & people in environment.
	CO2	Identify the pollutants & discuss its effects like climate change, GHG emissions etc.
	CO3	Relate the inter-relationship between development and ecosystem.
	CO4	Criticize ozone depletion and greenhouse effect.
	CO5	Design building without harming our Ecosystem.
After completion of **Introduction to Architecture** students should be able to		
AR133-Introduction to Architecture	**CO1**	Explain the overall knowledge on the definition of architecture and its different dimension.
	CO2	Interpret the knowledge of space and different spatial organization.
	CO3	Correlate the ideas of the scale with the theories on them and identify the same in the buildings.
	CO4	Appraise art and design, ability to recognize aesthetics, form and function by applying different design principles.
After completion of **Architectural Graphics**-I students should be able to		
AR144-Architectural Graphics-I	**CO1**	Explain the fundamental geometry of basic shapes used in their day-to-day life through drawing.
	CO2	Develop the skill of drafting by understanding the importance of line weight, lettering, scale etc.
	CO3	Determine the principles and techniques of drawing an object from different sides.
	CO4	Analyze and interpret a drawing
	CO5	Transform the idea in graphical / geometrical representation
	CO6	Express a concept in 2D drawing and 3D model.
After completion of **Architectural Workshop** students should be able to		
AR0153-Architectural Workshop	**CO1**	Illustrate the importance of "scale" while modelling any prototype.
	CO2	Imbibe the necessary material knowledge to enable them to understand the role of various materials in representing architectural forms.
	C03	Inculcate practice of using latest tools and techniques to develop any kind of model.

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	CO4	Develop sensitivity to Form & Space and its contextual response in architectural practice with reference to both local and global practices
	CO5	Deliver adequate and high-quality training to enable successful production of finished prototypes, using various materials.
After completion of **Basic Design-I** students should be able to		
AR164-Basic Design-I	CO1	Recognize their creativity through understanding of principles of Arts, Aesthetics & design.
	CO2	Interpret and Understand the creative imagination skills
	CO3	Articulate freehand sketches & rendering skills in different medium & using it as a tool of expressing ideas
	C04	Analyze, Connect and relate the skills in manual presentation
	C05	Reframe the space and form and Appraise the Knowledge of 2-D & 3-D compositions
	C06	Create, Visualize, Modify and design and Evaluate their own work.,
After completion of **Building Material and Construction-I** students should be able to		
AR174-Building Material and Construction-I	CO1	Identify different building materials, their uses and their applications and extraction process.
	CO2	Interpret and Understand the Basic principles/rules of masonry, bearing capacity & stability for stones, bricks, mud blocks
	CO3	Discover the concept and application of building materials and techniques of construction.
	CO4	Analyze, Basic terminology & types materials used for them, the advantages and disadvantages of the materials.
	O5	Evaluate, and Reframe the Principles and techniques learnt.
	CO6	Collaboratively design joineries
After completion of **Communicative English** students should be able to		
AH182-Communicative English	CO1	Develop the student's skills of communication in listening, speaking and writing.
	CO2	Write proper business reports, emails, formal letters etc.
	CO3	Properly write Curriculum vitae.
	CO4	Develop a proper presentation and speaking skills.
2nd SEMESTER		
After completion of **Structural Mechanics** students should be able to		
AS213-Structural Mechanics	CO1	Compare and contrast the constructional features of different structural elements of pre-historic architecture
	CO2	Outline different phenomena associated with force and force systems, composition and resolution of forces.
	CO3	Analyze the basic concepts and characteristics of different trussed structures and also mathematical application of virtual work.
	CO4	Identify the effects of C.G and M.I on Structural load calculations.
	CO5	Relate the effects of stress and strain on Structural load calculations.
After completion of **Climatology** students should be able to		
	CO1	List the effect of climate on habitat shelter and environment, Study of world climatic zones, characteristics of tropical climate along with Human

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AR223-Climatology		comfort conditions then Design the Psychometric chart.
	CO2	Illustrate and Design Solar Geometry & Design of Sun shading Devices.
	CO3	Describe the principles of thermal design & ventilation in buildings along with Wind velocity wind rose diagram and exercises on anemometer and its use.
	CO4	Design Building design & layout planning consideration for warm humid, hot dry & composite climates,
	CO5	Assess Exercises on design of small buildings for various climates.
After completion of **History of Architecture-I** students should be able to		
AR233-History of Architecture-I	**CO1**	Identify, recall and reproduce Pre-historic and Late Ancient (5000BC – 1st Century AD)
	CO2	Understand & Analyze combined influence of geographical, socio-culture, belief, political systems and climatic conditions on architecture in place specific context.
	CO3	Analyze & Demonstrate the importance of building material construction technique and evolution of technology on architectural styles and settlement pattern in prevailing architectural periods
	CO4	Do comparative evaluation and rate chronological developments along the timeline and across geographies.
	CO5	Design, propose and invent architectural elements, space and form into their own architectural, planning and interior design
After completion of **Architectural Graphics-II** students should be able to		
AR244-Architectural Graphics-II	**CO1**	Illustrate the skills in presenting the graphical language of architecture.
	CO2	Interpretation of techniques of architectural representation in 3-dimension and to equip with the basic methods of presentation techniques
	CO3	Usage/Use the use of graphics, colour and rendering for presentation of architectural drawings and visual communication.
	CO4	Distinguish, Comparison and to analyze different Visual perceptions with different graphical representation of architectural drawings.
	CO5	Develop concepts and final representations of architectural forms and spaces
After completion of **Visual Documentation and Measured Drawing** students should be able to		
AR252-Visual Documentation and Measured Drawing	**CO1**	Remember and understand the representation of human anatomy with the help of Vitruvian theory of human proportions.
	CO2	Basic understanding of different sketching techniques and expressing ideas in design.
	C03	Understand the techniques of hand rendering, application of one point and two point perspectives
	C04	Understand the indoor and outdoor spaces through measure drawing
	CO5	Understand the composition and documentation.
After completion of **Basic Design-II** students should be able to		
AR264-	**CO1**	Understand human anthropometry and behaviour as the important criteria behind any design
	CO2	Determine and justify the quantitative and qualitative values of a space

Basic Design-II	**CO3**	Evaluate and appraise a given spatial situation and derived inferences
	CO4	Graphically represent qualitative and quantitative aspects of a space
	CO5	Synthesis a design from the above understanding
After completion of **Building Materials and Construction-II** students should be able to		
AR274-Building Materials and Construction-II	**CO1**	Appraise the knowledge of building components.
	CO2	Define the building materials with their attributes.
	CO3	Focus on the development of the construction drawings with regards to the scale and proportion
	CO4	Analyze and demonstrate the building materials and few fundamental construction techniques with the help of hands-on model.
	CO5	Identify and correlate the construction technique on Site.
After completion of **Surveying Techniques** students should be able to		
AR283-Surveying techniques	**CO1**	Understand and apply the knowledge of different surveying techniques
	CO2	Summarize the principle and understand the need of basic levelling techniques.
	CO3	Illustrate and describe the various contours landforms
	CO4	Demonstrate the surveying with the use of total station unit.
3RD SEMESTER		
After completion of **Structural Analysis** students should be able to		
AR313-Structural Analysis	**CO1**	Compare different methods of analysis of determinate structures and adopt an appropriate structural analysis technique
	CO2	Illustrate the principles of structural analysis and behavior of determinate structures
	CO3	Describe about various methods involved in the analysis of determinate structures.
	CO4	Determine response of structures by different deflection calculation methods.
	CO5	Assess the effects of SFD & BMD on Structural load calculations
After completion of **Advanced Building Materials and Finishes** students should be able to		
AR324-Advanced Building Materials and Finishes	**CO1**	Identify the role of advance materials in building performance.
	CO2	Understand & Analyze the digital building facades
	CO3	Analyze and demonstrate the importance of material as an advanced building material.
	CO4	Analyze the properties of building material.
After completion of **History of Architecture-II** students should be able to		
AR333-History of Architecture-II	**CO1**	Identify, recall and reproduce church architecture, Jain, Buddhist and Early temple architecture
	CO2	Understand the establishment of different religion and its ideology in shaping architectural forms and spaces
	CO3	Analyze and demonstrate the importance of building material construction technique and evolution of technology on architectural styles and settlement pattern in prevailing architectural periods
	CO4	Comparative evaluation and rate chronological developments along the timeline and across geographies.
	CO5	Design, propose and invent architectural elements, space and form into

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		their own architectural, planning and interior design
After completion of **Water Supply and Sanitation** students should be able to		
AR343- Water Supply and Sanitation	**CO1**	Illustrate the importance of water in our daily life
	CO2	Interpretation of ideas to get clean and safe water for human consumption, and to equip with the water distribution systems and home installation techniques.
	CO3	Establishing the demand for refuse disposal and imbibe the necessary technical know-how of waste management system
	CO4	Encourage fostering of site visits which will enable to learn most of the specifics of water supply and sanitation methods on-site
After completion **of Architectural Design -I** students should be able to		
AR356- Architectural Design -I	**CO1**	Exercises on developing understanding of the use of different basic design elements in the building design
	CO2	Develop the skill of thought process by visualizing building form in plan, elevation & 3- dimensional sketching.
	CO3	Understand the relationship between the brief & challenges while proposing the spaces in the Design solution need to be worked out by study of zoning, user preferences, following planning standards of building design etc.
	CO4	Develop the functional as well as aesthetic significance of the proposed design
	CO5	What building materials to be used suitable to the design brief & how it is useful for the structure by understanding its specification
After completion of **Building Materials and Construction-III** students should be able to		
AR364- Building Materials and Construction-III	**CO1**	Memorize building materials and building construction studied earlier (in classand in real life) and get acquainted with the introductory part of the subject.
	CO2	Identify & correlate different building materials and construction practices related to load bearing as well as framed r.c.c. structures, understand applicationon different types of buildings for structural stability including service provisions.
	CO3	Illustrate, to scale, appropriate construction techniques (conventional and new)in detail drawings of different building parts like foundations, brick walls, R.C.C frames, doors & windows (timber / aluminium / steel / pvc), steel works, rainwater harvesting and storm drainage, etc.
	CO4	Choose hands-on learning, experimenting with scaled models as replica of certainareas of building construction.
After completion of Computer Applications in Architecture students should be able to		
AR372- Computer Applications in Architecture	**CO1**	Illustrate how a software can be used as a tool for drafting any two-dimensional diagram
	CO2	Use Different tools to draw 2d diagrams or building plans or elevations or sections
	CO3	Adaptation of techniques to simplify and analyze the work in better manner
4th SEMESTER		
After completion of Design of RCC Structures students should be able to		

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AR413- Design of RCC Structures	**CO1**	Name the basic elements of a R.C.C structure.
	CO2	Compare and contrast the fundamental behavior of R.C.C beams under different combination of loading.
	CO3	Describe about various code provisions given in IS 456-2000 (revised) for R.C.C structures design.
	CO4	Design structural reinforcements for different structural elements like beams, slabs and columns for a simple structure.
	CO5	Design basic elements of R.C.C structure like beams, slabs, columns and foundation bases
After completion of **Landscape Design,** students should be able to		
AR424- Landscape Design	**CO1**	Understand the principles of landscape planning in the design.
	CO2	Learn about the historical developments about the various landscape elements.
	CO3	Understand, study, and illustrate the principles of site planning in design
	CO4	Application of the principles of site planning in their design.
After completion of **History of Architecture-III,** students should be able to		
AR433- History of Architecture-III	**CO1**	Identify, recall and reproduce Gothic & Renaissance Architecture Recite the reason of emergence, development, evolution, and linkages of prevailing architectural periods
	CO2	Analytical understanding on the structural systems, social, religious and political characters followed in temple Architecture, and they can interpret creative thinking of space.
	CO3	Understand the circumstances of the emergence of Islamic architecture. The typical forms, style, influences, and decoration of certain period.
	CO4	Assess the Architectural design in terms of social, functional, aesthetical aspects in Mughal Architecture.
	CO5	Identifying the purpose, reasoning, and applicability of structures and same they can apply on their own design.
After completion of Vernacular Architecture, students should be able to		
AR443- Vernacular Architecture	**CO1**	Compare the Categories of Vernacular Architecture and Contextual Responsiveness
	CO2	Illustrate the Typical building material along with Built form and Elements.
	CO3	Determine Regional Variation in Built form: Tribal Architecture
	CO4	Determine Regional Variation in Built form: Rural Architecture.
	CO5	Assess all the Examples of Adaptation in Contemporary Architecture.
After completion of Architectural Design -II students should be able to		
AR456- Architectural Design -II	**CO1**	Examine with the fundamental knowledge of humane environment and identify habitat in the socio-cultural character of rural environment, all in a contextual background.
	CO2	Discover significant rural character in locale of traditional and vernacular architecture, functional simplicity, aesthetics of locally available building materials and the surrounding landscape
	CO3	Analyze, critically, impact of living and working environment with an eye to physical comfort, climatic conditions and cultural background and design spaces with appropriate planning methods.
	CO4	Develop original design solutions establishing interrelationships between

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		human behavior and discipline- specific spaces in rural environment with drawings & physical models.
	CO5	Assess own ability through presentations and defend position in the development of a step ahead in architectural knowledge.
After completion of Building Materials and Construction-IV students should be able to		
AR464- Building Materials and Construction-IV	CO1	Recall the hierarchy of building materials & construction techniques learnt earlier. Introducing the modern construction techniques using Steel and Iron as building material.
	CO2	Understand the applicability of glass as a structural / decorative element in building industry along with certain other details like Expansion & Contraction Joints.
	CO3	Illustrate the detail drawings of different building techniques to scale and proportion.
	CO4	Interpret the usage of the sustainable materials such as Bamboo, Ferro cement and other non - conventional techniques to be applied in their Design problem.
	CO5	Administer through Hands-on learning to Design and detail out the techniques learnt earlier in each problem.
After completion of 3D Modelling Techniques students should be able to		
AR472- 3D Modelling Techniques	CO1	Illustrate how a software can be used as tools for modelling techniques and constructing planes or drawing objects.
	CO2	Interpretation of Surface Development and uses of dynamic projections
	CO3	Usage/Use of Different Software and their tools to visualize a 3d object or buildings.
	CO4	Different software's and their tools can be Analyzed to simplify the 3d object and to simulate to any given conditions
	CO5	Adaptation of techniques and software for Simplifying and to analyze the work in better manner
5th SEMESTER		
After completion of Design of Steel Structures students should be able to		
AS513- Design of Steel Structures	CO1	List the basic elements of a steel structure
	CO2	Restate the fundamentals of structural steel fasteners
	CO3	Describe about various code provisions given in IS 800-2007 for steel structures design
	CO4	Design column splices and bases.
	CO5	Design basic elements of steel structure like tension members, compression members, beams and beam-columns.
After completion of Lighting and Electrical Services students should be able to		
AE524- Lighting and Electrical Services	CO1	Understand the fundamentals of Illuminance with regards to the study of light.
	CO2	Learn the different types of luminaires and their usage in designing space
	CO3	Study and learn the different design aspects of lighting
	CO4	Study and draw the detailed drawings required for generating electrical drawings.
	CO5	
After completion of Contemporary Architecture students should be able to		

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AR533- Contemporary Architecture	**CO1**	Identify, recall and able to reproduce architecture that evolved after the industrial revolution
	CO2	Understand the establishment of different philosophies and its ideology in shaping modern architectural forms and spaces.
	CO3	Analyze and demonstrate the importance of modern building material construction technique and evolution of technology on architectural styles
	CO4	Evaluate comparatively and rate chronological developments along the timeline of modern architecture around the world in the 19th and 20th century.
	CO5	Propose and innovate architectural elements, spaces and form and use it as solutions in their designs.
After completion of HVAC Systems students should be able to		
AR543- HVAC Systems	**CO1**	To introduce students to HVAC technology, engineering, research, system designs, energy impacts, and overall goals
	CO2	To understand how energy conscious architecture can be adopted as an alternative in contemporary practice
	CO3	To understand the principles and practice and requirements of ventilation and thermal comfort
	CO4	To enable the student to calculate and estimate heating or cooling load of a building and design the air-conditioning system in an effective manner
	CO5	To study methods to predict seasonal and annual energy consumption and overview design guidelines and standards for energy efficient buildings and building energy systems.
After completion of Architectural Design -III students should be able to		
AR556- Architectural Design -III	**CO1**	Design multifunctional design environments.
	CO2	Focus on spatial integration and zoning orientation patterns
	CO3	Understand site planning technique
	CO4	Interrelate man and environment relationship
	CO5	Expose towards various building services.
After completion of Working Drawing-I students should be able to		
AR564- Working Drawing-I	**CO1**	Understand the importance of Working drawings in building construction.
	CO2	Identify essential components of working drawings, notations, drawing standards.
	CO3	Prepare the set of working drawings for various stages of building construction.
	CO4	Expose towards the building construction and its function.
After completion of Design Communication students should be able to		
AR572- Design Communication	**CO1**	To acquaint students with techniques of visual perception, communication of the aesthetics of architecture and other associated art forms in a journalistic manner.
	CO2	To demonstrate an effective transference of ideas while recognizing and applying aesthetic principles within non-original (case studies, research) and original works (portfolio), respectively.
	CO3	To develop a design idea into a coherent proposal and to communicate ideas and concepts through graphical representation.
	CO4	To evaluate the aesthetic content of architectural design through graphic narratives.

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	CO5	To understand fundamental and innovative visual communication principles and graphic expression techniques to facilitate the design enquiry process for architects.
6th SEMESTER		
After completion of Specifications, students should be able to		
AR613- Specifications	CO1	Illustrate how Specifications can be used for forming part of Building Contract
	CO2	Interpretation of work detail specification of all the works related to all civil works
	CO3	Application and usage of Material Quality and Standards
	CO4	Analyzing thoroughly the minute detail of civil and interior work by simplifying the use of material and work technique
	CO5	Adaptation of Standard Specification for different Institutions like PWD, MES, CPWD, BIS etc.
After completion of Advanced Building Systems and Services students should be able to		
AR624- Advanced Building Systems and Services	CO1	To acquaint students with fire fighting systems and their integration in building layouts.
	CO2	To inspect and critique the spatial and functional requirements for Parking and Circulation Systems.
	CO3	To compare functioning and application of building utility and automation systems.
	CO4	To enable students to assess buildings as per o NBC (National Building Code), ECBC (Energy Conservation and Building Code) and BIS regulations (Bureau of Indian Standards)
	CO5	To analyze the various aspects of Advanced Building Systems and Services on the basis of precedents and case studies.
After completion of Theory of Design students should be able to		
AR633- Theory of Design	CO1	Define design and identify various parameters of evaluation of design.
	CO2	Articulate design process and interpret various theories related to thinking.
	CO3	Appraise the concepts and philosophies of the great masters in design.
	CO4	Distinguish the unique characteristics of different styles of post modernism.
	CO5	Summarize the impact of aesthetic movements and philosophies on architectural principles and evolution of architectural styles in the world.
	CO6	Formulate and communicate their ideas using various vocabularies of design.
After completion of Architectural Acoustics students should be able to		
AR643- Architectural Acoustics	CO1	Understand the fundamentals of building acoustics with regards to the study of sound.
	CO2	Study the acoustic properties of typically used materials for design consideration
	CO3	Define and analyze acoustical properties of the materials used in a usable space through calculations. Research on the same through market study.
	CO4	Design and interpret a room keeping in mind the parameters of room acoustics.
	CO5	Learn various ideologies and context of designs thereby developing their own theories and applying the same knowledge in their own design skills.

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After completion of Architectural Design -IV students should be able to		
AR656- Architectural Design –IV	CO1	Identify memory of previously gained design knowledge of multifunctional architectural spaces and delve into complexities of providing shelter for people from different socio-economic background in an urban setting.
	CO2	Discover climate sensitive passive design techniques from concepts (from past & future neighborhood design) and estimate capability of dealing complexities of mixing various group within living environments and regulatory requirements.
	CO3	Interpret challenges of bigger scale site planning (campuses / group of built-up spaces), functional zoning, orientation patterns, building space programming, coordinating with variables in function & services, project phasing, financing and construction
	CO4	Illustrate original design solutions using appropriate planning methods, physical infrastructure standards, space optimization through regulatory statutes and establish climate responsive passive design techniques in dealing with human behavior and discipline in neighborhoods / group housing / gated communities with texts, drawings & physical / 3D models.
	CO5	Assess own ability through presentations and defend position in the development of a further step ahead in architectural knowledge
After completion of Working Drawing-II students should be able to		
AR664- Working Drawing-II	CO1	Prepare drawings for construction of a frame structure building
	CO2	Understand the readability of the drawing.
	CO3	Understand different services drawings representation technique.
	CO4	Interact on site related to the construction.
After completion of Interior Design students should be able to		
AR673- Interior Design	CO1	Understand the need, basic principles and elements of Interior design.
	CO2	Understand the interior space planning and its historical background
	CO3	Create and develop space planning according to the use, with the basic knowledge of Ergonomics in relation to Anthropometric study.
	CO4	Understand the relation between user – activity – space for conceptual development.
	CO5	analyze the usage of modern, traditional as cost effective materials and details
	CO6	Apply the Interior space planning in details in previous design project.
	CO7	Explore creativity and innovative design options with the basic knowledge of anthropometrics, building materials and finishes and construction details.
	CO8	Understand and apply same knowledge in their ongoing design project.
7th SEMESTER		
After completion of Estimation and Valuation students should be able to		
AR713- Estimation and Valuation	CO1	illustrate how a software can be used as tools for modelling techniques and constructing planes or drawing objects
	CO2	Interpretation of Surface Development and uses of dynamic projections
	CO3	Usage/Use of Different Software and their tools to visualize a 3d object or buildings.
	CO4	Different software and their tools can be Analyzed to simplify the 3d object

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		and to simulate to any given conditions
	CO5	Adaptation of techniques and software for Simplifying and to analyze the work in better manner
After completion of Introduction to Urban Planning and Design students should be able to		
AR724- Introduction to Urban Planning and Design	CO1	Recall the different forms and types of spaces within the city from the past experiences
	CO2	Understand the basic function and activities within a city and the surrounding region from the history fruitfully utilize the legacy of past for designing future urban spaces which responds to needs of sustainability, compactness, conviviality and efficiency.
	CO3	Analyze and the macro level planning, different norms, standards and related policies.
	CO4	Understand the technique used to illustrate the relationship between built and unbuilt space in cities.
	CO5	Learning to map existing development plan of selected urban areas ,Learning Importance & methodologies of surveys in planning process,
	CO6	Apply concepts of techniques of Public space design and Urban Design components in their architectural designs projects.
After completion of Behavioural Architecture students should be able to		
AR733- Behavioural Architecture	CO1	Impart knowledge, born out of the synthesis between architecture and behavioral psychology
	CO2	Illustrate the multiplicity of living patterns, activities, geometric patterns in space in order to design spaces responsive to human behaviour
	CO3	Evaluate the importance of social structure and order of a space to apply it in design.
	CO4	Monitor the significant impact of Space Satisfaction on Coping Behavior.
	CO5	Understand the visual perception of a place or spatial built form that could be integrated with the design approach.
	CO6	Demonstrate skills in Social Survey and Social research with significant knowledge of cognitive Mapping.
After completion of **Ergonomics and Product Design** students should be able to		
EAR743- Ergonomics and Product Design	CO1	Understand the concept of Product Design in reference to anthropometry and ergonomics in Architecture.
	CO2	Define and explain the relation of the user with its space.
	CO3	Explore the various aspects of product design & its relationship with the user.
	CO4	Design & implement the study in designing furniture/ product related to architecture
	CO5	Learn and apply the elements of design for differently-abled, Old aged and Children oriented spaces.
After completion of **Set Design for Events and Performing Arts** students should be able to		
EAR743- Set Design for Events and Performing Arts	CO1	Understand the idea of temporary spatial experience
	CO2	Understand the importance of temporary spaces in performing arts and exhibitions
	CO3	Understand the design process for ephemeral spaces
	CO4	Convert texts into spatial expressions
	CO5	Understand and apply the technical aspects of Set Design

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After completion of **Space Syntax and Geometry of Forms** students should be able to		
EAR-743 Space Syntax and Geometry of Forms	**CO1**	Describe the need of evolution of forms with examples.
	CO2	Explain the properties and applications of various geometrical solids.
	CO3	Analyze and apprise the properties and construction materials of tensile resistant structures and thin shell structures as advanced concepts of roofing envelops.
	CO4	Evaluate spatial configuration and socio-cultural interaction in built environment as reciprocating factors.
	CO5	Develop structural solutions with the help of complex geometrical forms.
	CO6	Understanding concepts of form generation based on certain parameters.
After completion of Architectural Design -V, students should be able to		
AR756-Architectural Design -V	**CO1**	Recall the knowledge of form development and development of concept
	CO2	Understand and Summarize all applications of Building bye-laws, norms & regulations applicable in the study area.
	CO3	Understand the calculations involved during the process of design evolution. Address site context & integrate it with the proposed design
	CO4	Analyze the expressions- organization, flexibility & functionality of spaces, circulation, zoning, scale, proportions, massing, etc.
	C05	Use of materials & the innovative methods & for various purposes
	CO6	Application of Building services i.e staircases, lifts, fire escape staircase, ducts, shafts, toilets, HVAC, automation systems, electrical, plumbing, etc. Considerations of Site services- entrance/exits, fire escape, parking, site drainage, water storage, security, etc.
After completion of **Architectural Details, students should be able to**		
AR764-Architectural Details	**CO1**	Understand the creative architectural detailing of building components and use of different building materials.
	CO2	Understand different implementing technology and hardware.
	CO3	Understand and apply the same knowledge of exterior and interior cladding in their previous design project.
	CO4	Understand and apply the flooring and ceiling layout in their previous design project.
	CO5	Understand and apply the different types of doors windows, modular kitchen and toilet details in their previous interior project.
After completion of **Research Methods and Seminar students should be able to**		
AR772-Research Methods and Seminar	**CO1**	Describe research and its importance
	CO2	Differentiate between different research methods and methodologies.
	CO3	Apply the knowledge for analytical reading.
	CO4	Appraise and review literature related to topic of research.
	CO5	Acquire skill of data collection and analysis using various tools.
	CO6	Interpret how research projects/topics can be converted to design projects/ proposals and writing research paper.
8th SEMESTER		
After completion of **Construction Project Management students should be able to**		
AR813-Construction Project	**CO1**	Discern objectives, functions and responsibilities of various stakeholders of construction industry.
	CO2	Understand function and responsibilities of construction project team and

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Management		its organisation, various legislations related to construction.
	CO3	Plan and schedule small projects.
	CO4	Perform network analyses and optimize for project time-cost trade-off.
	CO5	Understand basics of finance management and risk management, construction equipment and construction site safety.
	CO6	Understand quality assurance and quality control in construction.
After completion of **Disaster Resilient Architecture students should be able to**		
AR824-Disaster Resilient Architecture	**CO1**	Understand the fundamentals of the Earth's Geological condition leading to the occurrence of different natural disasters.
	CO2	Aware of the knowledge related to zoning regulations & its application for designing different Resilient structures & Study of region-wise norms & standard byelaws of different Seismic Zones helping them to create Climate responsive building design.
	CO3	Study of various disaster prevention strategies taken by different Organizations at the Central & State level
	CO4	Understanding and applying the analysis of practical disaster sites,the issues and design accordingly their Resilient Building Structure using technologies practiced for construction of Resilient Architecture by using various innovative materials & use ofsoftware to generate models and design
After completion of **Energy efficient Design and Green Architecture students should be able to**		
EAR833-Energy efficient Design and Green Architecture	**CO1**	Understand the concept of green building design.
	CO2	Study the effect of orientation, topography, vegetation building materials on design in response to the climate
	CO3	Study the Approach to climate-responsive built environment and learn howto design comfortable space.
	CO4	Learn different strategy of natural cooling and heating process,
	CO5	Design energy conscious architectural design, strategies and built forms.
After completion of **Modular Coordination and Prefabrication students should be able to**		
EAR833-Modular Coordination and Prefabrication	**CO1**	Establish dimensional coordination of lay-out positioning of different building components in relation to each other and building to facilitate collaboration between planners, manufacturers and contractors.
	CO2	Apply different planning approaches according to the different contextual needs.
	CO3	Conduct a planning process for an area through different field observation techniques.
	CO4	Explore the need of people and offer them a way to get well designed habitat that fits to their needs.
	CO5	Analyse the benefits in term of flexibility, embodied energy, use of different eco-friendly materials and its impact on different aspects of built environment design.
	CO6	Carry out live case studies and draw inferences about the cause-effect of the phenomenon.
After completion of **Industrial Architecture students should be able to**		
EAR833-Industrial Architecture	**CO1**	To introduce students to HVAC technology, engineering, research, system designs, energy impacts, and overall goals
	CO2	To understand how energy conscious architecture can be adopted as an alternative in contemporary practice

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	CO3	To understand the principles and practice and requirements of ventilation and thermal comfort
	CO4	To enable the student to calculate and estimate heating or cooling load of a building and design the air-conditioning system in an effective manner
	CO5	To study methods to predict seasonal and annual energy consumption and overview design guidelines and standards for energy efficient buildings and building energy systems.
After completion of **Architectural Design -VI students should be able to**		
AR846-Architectural Design -VI	CO1	Accept previously gained design knowledge of multifunctional architectural spaces, providing shelter for people in an urban context and move into designing of public spaces also consuming large volume built-ups including urban conservation.
	CO2	Understand the context of a city with multiple and large number of unknown users behaving and gathering in large space developments (transportation nodes, waterfront development, heritage zone development, city centers, street scape & urban market, etc.)
	CO3	Explore the criticalities of density, land use, intervention decisions including vehicular and pedestrian movement and creating urban aesthetics, optimizing innovation through climate sensitive design and structural techniques dealing complexities of mixing various groups.
	CO4	Interpret challenges through bigger scale built-ups, complex site planning, functional zoning, orientation, building space programming, coordinating variables in function & services, project phasing, financing and construction.
	CO5	Illustrate original design solutions using appropriate urban planning and urban design principles, city level services, social anthropology, space optimization, regulatory statutes and have standard physical infrastructure standards complying to crowd management & human behavior in large spaces with texts, drawings & physical / 3D models.
	CO6	Assess own ability through presentations and defend position in the development of a further step ahead in architectural knowledge.
After completion of **Research and Design students should be able to**		
AR854 – Research and Design	CO1	Creating importance of architectural documentation and condition assessment of buildings/sites
	CO2	Classifying and marking structural issues and challenges at the building level and documenting the same
	CO3	Gaining hands-on experience and knowledge of how to identify, list, and document buildings/sites.
	CO4	Understanding the tools of documentation like sketches, drawings, and visual documentation
	CO5	Exploring the methods to the digitization and digital preservation of existing spaces
After completion of Pre-thesis Seminar students should be able to		
AR862-Pre-thesis Seminar	CO1	Identify a topic of interest to do research that will ultimately be converted to a design proposal for the final design thesis.
	CO2	Review literature related to the topic for finalization of the research question, aim, and objectives of the design thesis.
	CO3	Infer data from the literature for writing the synopsis of the design thesis.

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	CO4	Collect preliminary data and analysis of the same.
	CO5	Prepare a preliminary proposal for the design thesis.
	CO6	Write a research paper that will be further utilized for finalizing the design proposal.
9th SEMESTER		
After completion of Office Training students should be able to		
AR914- Office Training	CO 1	Have an exposure to the ground realities of the profession of Architecture, as well as equipping them with vision and information that can be helpful for their final thesis.
	CO 2	Conceptualise and develop the live projects in the office.
	CO 3	Create Presentation drawings/ drawings for approval for live projects.
	CO 4	Produce Working drawings/working details of the live projects.
	CO 5	Form Estimation and specification of specific live projects.
	CO 6	Interact with contractors, other technical professionals involved in the projects and clients.
After completion of Site Supervision Work students should be able to		
AR922- Site Supervision Work	CO 1	Have an exposure to different stages of construction work at site.
	CO 2	Understand the process and observe how drawings are being translated to construction.
	CO 3	To observe the execution work and its schedule of execution.
	CO 4	Interact with contractors and other technical professionals involved in the projects.
	CO 5	Observe work of the site and convert the same in a report containing relevant sketches made at site, notes and photographs. (Documentation)
After completion of Critical Appraisal of Buildings students should be able to		
AR933- Critical Appraisal of Buildings	CO 1	Study the worthiness, value and relevance of an existing project.
	CO 2	Study the effectiveness of the site layout, external circulation pattern and landscape of an existing project.
	CO 3	Study the climatological considerations included in the design process. Sustainability, energy efficiency, green considerations, solar passive or active etc.
	CO 4	To study the type of structure, the materials used and their relevance to the site conditions.
	CO 5	Critically analyse of all floor plans, internal circulation, building services, effective utilisation of space and quality of space.
	CO 6	To study the Adaptability of the building to change of use and future expansion.
After completion of Documentation of Architectural Details students should be able to		
AR943- Documentation of Architectural Details	CO 1	Understand the creative architectural detailing of the building components and use of different building material used in the live projects.
	CO 2	Understand different implementing technology, equipment and hardware.
	CO 3	Understand the historical Building's architectural detailing of the building components and use of different building material used in the live projects.
	CO 4	To make the study in the form of documentation and report of the same.
	CO 5	To make and innovate their own special elements and do the detailing of

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	CO 5	To make and innovate their own special elements and do the detailing of the same.
10th SEMESTER		
After completion of **Professional Practice ,** students should be able to		
AR 013 – Professional Practice	**CO1**	Acknowledge the role and responsibilities of an Architect in the society.
	CO2	Learn to comply with the role of COA along with its guidelines, norms and regulations.
	CO3	Evaluate the ethics in the profession, its engagement regulations, and the Architect's accountability in regards to COA.
	CO4	Understand the various types of Architectural competition projects and how to check the eligibility criteria of the same.
	CO5	Learn to comply with the role of Development authorities, Urban Art Commission, Environmental Act & Laws special rules governing hill area development & coastal area management, heritage act of India etc. along with its guidelines, norms and regulations.
	CO6	Learn to comply with the role of Principles of Indian Arbitration Act-1974, role of arbitrators, umpire etc, excepted matters, arbitral award. Municipal Acts, Fire prevention, safety and security measures in buildings along with its guidelines, norms and regulations.
After completion of **Building Repair and Restoration ,** students should be able to		
EAR 023 – Building Repair and Restoration	CO1	Understand the impact & influence of environment on the life expectancy of buildings.
	CO2	Monitor the defects & failure in the building.
	CO3	Illustrate the fundamental strengthening measures and techniques.
	CO4	Demonstrate the skills in Maintenance and Repair with significant knowledge on material.
	CO5	Understand the retrofitting strategies and techniques.
After completion of **Real Estate Management ,** students should be able to		
EAR 023 – Real Estate Management	**CO1**	Acknowledge lessons learnt working as interns, in the previous semester, at various Architectural offices dealing real estate development to provide shelters/spaces (for people in urban context with residences, commercial areas and industries) and move into understanding of Real Estate Planning & Management.
	CO2	Understand the real estate issues, policies, regulations, market functioning, economic concepts, land holding, acquisitions and legal matters concerning land & property in the Indian context.
	CO3	Explore property development with theory and planning assumptions, its key players concerned, methods & tools, feasibility studies and need assessments including the criticalities of density, land use, intervention decisions creating urban aesthetics.
	CO4	Interpret challenges through independent assessment built-ups, site planning using various information sources, process requirements for strategies, risk quantum and profitability.
	CO5	Recommend original solutions using appropriate urban planning and urban design principles, services, social anthropology, space optimization,

		complying to crowd management & human behaviour with texts, sketches & reports.
	CO6	Assess own ability through presentations and defend position in the development of a further step ahead in architectural knowledge gaining a well-developed understanding of professional and ethical integrity.
After completion of **Urban Transportation Planning,** students should be able to		
EAR 023 – Urban Transport Planning	**CO1**	Understand Transportation systems and modes, demand and supply of transportation services, physical structure of the city and transportation system.
	CO2	Understand the Inter-relationship of land use and transportation & planning process.
	CO3	Understand the traffic flow characteristics & will be able to perform a proper Traffic survey.
	CO4	Understand the environmental impact of traffic; Energy issues in transportation, Transportation policies and safety standards.
	CO5	Analyze all the issues and design and give a new proposal.
After completion of **Architectural Thesis,** students should be able to		
AR 0416 – Architectural Thesis	**CO1**	Use all the knowledge acquired in the duration of 5 years of academic course.
	CO2	Methodically self-direct effort by choosing the project of choice, builds capacity to work independently and methodically in a variety of intellectually and professionally demanding contexts.
	CO3	Learn to make an original and individual, creative contribution to the academic discipline and/or the professional field.

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PROGRAMME OUTCOMES (POs) FOR B.ARCH

PO1: Provide holistic knowledge of architecture, enabling students to have an interdisciplinary perspective attuned to contextual realities of the environment where they work

PO2: Deliver adequate and high-quality training to enable successful production of conceptual design schemes, technical drawings/documents, graphic presentations, and models, etc. with various mediums to aid in the successful application of design ideas to real-life solutions.

PO3: Develop sensitivity to the built environment/human related spaces and its contextual response in architectural practice with reference to both local and global practices.

PO4: Imbibe the necessary technical know-how to be able to deliver a functional structure/building to the client.

PO5: Produce and nurture a dynamic learning environment that promotes inquiry through design research and rigorous application of lessons learned.

PO6: Develop appropriate research methodology to conduct research related to the problems in architecture and allied fields.

PO7: Inculcate practice of using latest tools(software) and techniques for innovative solutions in building design.

PO8: Develop the skills necessary from a building professional in order to be able to communicate his /her ideas to the end user.

PO9: Teach collaboration skills to enable an individual in working as an integral member of multidisciplinary/interdisciplinary design and execution teams in the building industry.

PO10: Develop and nurture an attitude of observation, cognition and lifelong enquiry in the student of architecture.

PO11: Encourage fostering of ethics and values in students in order to develop socially conscientious individuals and good human beings.

PO12: Imbibe the awareness and respect for culture and cultural practices in students for providing sustainable solutions.

PROGRAM SPECIFIC OUTCOMES (PSOs) FOR B.ARCH

PSO1: Provide holistic knowledge of architecture, enabling students to have an interdisciplinary perspective attuned to contextual realities of the environment where they work

PSO2: Develop sensitivity to the built environment/human related spaces and its contextual response in architectural practice with reference to both local and global practices.

PSO3: Develop appropriate research methodology to conduct research related to the problems in architecture and allied fields.

PSO4: Imbibe the awareness and respect for culture and cultural practices in students for providing sustainable solutions.

3. CO, PO and PSO for M.Arch (Executive)

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COURSE OUTCOMES FOR M. ARCH (EXECUTIVE)		
1st SEMESTER		
After completion of **Planning Principles in Human Habitat** students should be able to		
PCHD4101 - PLANNING PRINCIPLES IN HUMAN HABITAT	**CO1**	Define the terminologies related to planning, illustrate concept of planning and its need.
	CO2	Analyze the factors responsible for evolution in town planning till date and what more can be.
	CO3	Establish the relationship between geography, people and land use.
	CO4	Evaluate various theories of urban growth and structure in relation to different parameters.
	CO5	Analyze the impact of Industrial revolution on human habitat & town planning and further utilizing this for getting more pertaining solutions of planning issues in present day context.
	CO6	Infer planning principles from the thoughts and philosophies of the pioneers in planning.
After completion of **Socio-Economic Considerations for Habitat Design** students should be able to		
PCHD4102 - SOCIO-ECONOMIC CONSIDERATIONS FOR HABITAT DESIGN	**CO1**	Understand various concepts of culture and environment; society; community groups
	CO2	Explore impact of social structures and institutions on human habitats
	CO3	Analyze the various economic issues related to habitat planning
	CO4	Study and document Trends and patterns of Indian urban growth; Real Estate setup, market and demand analysis.
	CO5	Deliberate on emerging social and economic challenges affecting structure of cities and suggest appropriate interventions
After completion of **Climatology and Solar Architecture** students should be able to		
PEHD5101- CLIMATOLOGY AND SOLAR ARCHITECTURE	**CO1**	Identify the role of role of climate in Climate Responsive Habitat Design.
	CO2	Study the Urban Climate Dynamics wrt Urban Heat Island and Altered Wind Effects due to City Aerodynamics.
	CO3	Apply Vernacular Model References and other climatic studies to propose solutions for urban climatic issues.
	CO4	Connect the Solar Architecture approach as a viable option for urban issues and illustrate its various methods
	CO5	Appraise the applicability of Solar Architecture in various climatic contexts
	CO6	Develop climate responsive disaster mitigation models.
	CO6	Express a concept in 2D drawing and 3D model.
	CO5	Deliver adequate and high-quality training to enable successful production of finished prototypes, using various materials.
2nd SEMESTER		
After completion of **Habitat Design Theory,** students should be able to		
PCHD4103	**CO1**	Compare and contrast the constructional features of different structural elements of pre-historic architecture

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HABITAT DESIGN THEORY	**CO2**	Outline different phenomena associated with force and force systems, composition and resolution of forces.
	CO3	Analyze the basic concepts and characteristics of different trussed structures and also the mathematical application of virtual work.
	CO4	Identify the effects of C.G and M.I on Structural load calculations.
	CO5	Relate the effects of stress and strain on Structural load calculations.
After completion of **Sustainable Architecture and Habitat Management** students should be able to		
PCHD4104 – SUSTAINABLE ARCHITECTURE AND HABITAT MANAGEMENT	**CO1**	Define Sustainable Development-various viewpoints: Environmental Sustainability, Economic Sustainability and Social Sustainability.
	CO2	Understand principles of Sustainable Design and summarize various benchmarks to attain the same
	CO3	Relate Sustainability principles to discover Cost reduction techniques in buildings.
	CO4	Analyze energy conservation through sustainable lighting design and Life cycle concept.
	CO5	Appraise water and energy conservation techniques in various climatic contexts.
	CO6	Create a sustainable energy-efficient model for local climatic parameters
After completion of **Environmental Considerations in Habitat Design** students should be able to		
PEHD5103 - ENVIRONMENTAL CONSIDERATIONS IN HABITAT DESIGN	**CO1**	Identify, recall and reproduce Pre-historic and Late Ancient (5000BC – 1st Century AD)
	CO2	Understand & Analyze the combined influence of geographical, socio-culture, belief, political systems and climatic conditions on architecture in place specific context.
	CO3	Analyze & Demonstrate the importance of building material construction technique and evolution of technology on architectural styles and settlement pattern in prevailing architectural periods
	CO4	Do comparative evaluation and rate chronological developments along the timeline and across geographies.
	CO5	Design, propose and invent architectural elements, space and form into their own architectural, planning and interior design
After completion of **Habitat Design Studio-I** students should be able to		
PCHD7101 HABITAT DESIGN STUDIO-I	**CO1**	Explain that a habitat can be very small and can extend to cover the whole world that is the habitat of the organism to the habitat of all animals and people living in this planet.
	CO2	Determine habitats of different types station with the small house, the hamlet, the village, the city and go into large area planning like the Region.
	C03	Distinguish the difference in the types of Habitats human being deal with.
	CO4	Choose these solutions for suitable habitat design.
	CO5	Configure a Design for the Habitat under consideration.
3RD SEMESTER		
After completion of **Advanced Landscape Design** students should be able to		

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PCHD4201- ADVANCED LANDSCAPE DESIGN	**CO1**	Assess impact of vegetation and hardscape through landscape design
	CO2	Evaluate energy conservation and sustainability measures through application of landscape design strategies.
	CO3	Appraise landscape design guidelines impacting microclimate and site planning.
	CO4	Study landscape design principles and considerations for circulation, linkages and accessibility.
	CO5	Review identification criteria of plants, shrubs and groundcovers suitable for tropical climates
After completion of **Land Economics and Real Estate Management** students should be able to		
PCHD4202- LAND ECONOMICS AND REAL ESTATE MANAGEMENT	**CO1**	Understand the concepts of Land-use planning and principles of urban land management.
	CO2	Assess the urban land market – characteristics, factors affecting the market, supply & demand of land, etc.
	CO3	Understand Real estate market – economic cycles, demand & supply, etc.
	CO4	Understand various legislations related to Land & Real Estate.
After completion of **Infrastructure Planning & Management** students should be able to		
PEHD5201 INFRASTRUCTURE PLANNING & MANAGEMENT	**CO1**	Understand concepts of various urban infrastructure including social and physical ones
	CO2	Implement qualitative and quantitative techniques of assessing infrastructure requirements in urban environments
	CO3	Plan amenities and infrastructure as per need assessment and manage them as per quality control demands
	CO4	Mobilize resource including finance for achieving infrastructure goals
	CO5	Apply new opportunities and initiative in infrastructure development and management for equitable economic development
After completion of **Habitat Design Studio-II** students should be able to		
PCHD7101 HABITAT DESIGN STUDIO-II	**CO1**	Explain that a habitat can be very small and can extend to cover the whole world that is the habitat of the organism to the habitat of all animals and people living in this planet.
	CO2	Determine habitats of different types station with the small house, the hamlet, the village, the city and go into large area planning like the Region.
	CO3	Distinguish the difference in the types of Habitats human being deal with.
	CO4	Choose these solutions for suitable habitat design.
	CO5	Configure a Design for the Habitat under consideration.
4th SEMESTER		
After completion of **Conservation and Renewal of Heritage Habitat** students should be able to		
PCHD4203 - CONSERVATION AND RENEWAL OF	**CO1**	Knowing heritage gives people the strength to remain united as a civilization.
	CO2	Understand that heritage is inherited from the past generations, maintained in the present and left for future generations.
	CO3	Conservation work has to be applied for the upkeep to our heritage.

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HERITAGE HABITAT	**CO4**	Evaluate different methods of conversation that can be done.
	CO5	Identify the best method to be adopted.
	CO6	Use the relevant conservation technique/methods for the conservation work in hand.
After completion of **Project Management,** students should be able to		
PEHD5203 - PROJECT MANAGEMENT	**CO1**	Comprehend systems approach to urban management.
	CO2	Evaluate, identify, and estimate impact of infrastructure projects.
	CO3	Perform cost benefit analysis of infrastructure projects.
	CO4	Perform network analyses and project monitoring under resource constraints – resource allocation & resource levelling.
	CO5	Prioritize projects using multi-criteria decision making.
After completion of **Habitat Studio-III,** students should be able to		
PCHD7202- HABITAT DESIGN STUDIO-III	**CO1**	Understand the fabric of an existing habitat
	CO2	Appreciate different forces responsible for the formation and growth of the habitat
	CO3	Learn to analyze existing area/areas with an eye on its infrastructure, ecological aspects, land and land area coverage
	CO4	Explore and draw conclusion regarding character of built form, transportation network, uses of built form, and study of fenestration and façade treatment
	CO5	Document the study undertaken in the form of a report
5th SEMESTER		
After completion of **Development Legislation** students should be able to		
PCHD4301 - DEVELOPMENT LEGISLATION	**CO1**	Understanding the significance of law and its relationship to urban planning.
	CO2	Knowledge of various regulation and development control system.
	CO3	Learn legislations related to use and control of land, land acquisition, Slums - related legislation, conservation of natural resources, heritage areas and its management.
	CO4	Knowledge eco sensitive zone areas and environmental management system.
	CO5	Develop the skills for planning & designing of architectural spaces in both micro and macro level within building regulation framework.
After completion of **Advanced Theories of Design** students should be able to		
PCHD4302- ADVANCED THEORIES OF DESIGN	**CO1**	Appraise various vocabularies of design for people keeping comfort as the focus
	CO2	Identify behavioural issues associated to public spaces and ways in which they can be addressed
	CO3	Discern between public and private spaces; flexibility of thought and speculation; memory and mental mapping
	CO4	Understand and analyse micro, meso and macro level site situations

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	CO5	Analyse various analogical examples and be able to derive inferences and make recommendations
After completion of	**Modular Coordination and Prefabrication** students should be able to	
PEHD5302 – MODULAR COORDINATION AND PREFABRICATION	CO1	Establish dimensional coordination of lay-out positioning of different building components in relation to each other and building to facilitate collaboration between planners, manufacturers and contractors.
	CO2	Apply different planning approaches according to the different contextual needs.
	CO3	Conduct a planning process for an area through different field observation techniques.
	CO4	Explore the need of people and offer them a way to get well designed habitat that fits to their needs.
	CO5	Analyse the benefits in term of flexibility, embodied energy, use of different eco-friendly materials and its impact on different aspects of built environment design.
After completion of	**Habitat Design Studio -IV students should be able to**	
PCHD7202- HABITAT DESIGN STUDIO-IV	CO1	Explain that a habitat can be very small and can extend to cover the whole world that is the habitat of the organism to the habitat of all animals and people living in this planet.
	CO2	Determine habitats of different types station with the small house, the hamlet, the village, the city and go into large area planning like the Region.
	CO3	Distinguish the difference in the types of Habitats human being deal with.
	CO4	Choose these solutions for suitable habitat design.
	CO5	Configure a Design for the Habitat under consideration.
6th SEMESTER		
After completion of Seminar Presentation, students should be able to		
PC14 SEMINAR PRESENTATION	CO1	The info gathered according to the research problem was well structured in a logical sequence.
	CO2	Develop the ability to synthesize, evaluate the information thus gathered in their reports.
After completion of Design Dissertation students should be able to		
PC15 DESIGN DISSERTATION	CO1	More in-depth knowledge of a major topic in the field of study could be gained.
	CO2	Deeper insights could be received in the current research and development work.
	CO3	Understanding capabilities and attitudes in the context of the program offered .

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PROGRAM OUTCOMES (POs) FOR M.ARCH (EXECUTIVE)

At the end of the PG Course M.Arch in HABITAT DESIGN, the students are equipped with professional knowledge and skills to become professional urban design practitioners.

PO1: Acquire a wide range of knowledge concerning different habitats e.g rural, urban, peri-urban, etc. spanning across scales and to inculcate design thinking to achieve efficiently, context responsive, and sustainable habitats.

PO2: Develop a culture of innovation, collaboration, and discovery, and analytical thinking that has a transformational impact on society through innovation in habitats and living conditions therein.

PO3: Integrate education, research, and practice with respect for cultural and social diversities to achieve academic excellence.

PO4: Deliver adequate training to students in the application of appropriate techniques, resources, and modern tools

PO5: Serve society through education and skill training required to address pressing social needs and commit to professional ethics and responsibilities and norms of the architectural and urban professional practice

PO6: Understand the impact of the professional habitat design solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development and arresting climate change.

PO7: Demonstrate knowledge and understanding of habitat design management principles and apply these in individual work, as a member and leader in a team, to manage projects and in a multidisciplinary environment.

PROGRAM SPECIFIC OUTCOMES (PSOs) FOR M. ARCH(EXECUTIVE)

PSO1: To assimilate various methodologies of teaching-learning and modes of transmitting the same to have a holistic perspective on habitat design.

PSO2: To engage in independent and lifelong learning in the broadest context of global change in terms of environment, technology, culture, politics, and commerce and apply higher-order thinking skills and emerging interdisciplinary knowledge in solving problems plaguing settlements across the world.