



### Details of Certificate Courses for Academic Year 2021-22

Course Code	BARE121 ELECTIVES SR		
Course Name	<b>Architectural Sketching &amp; Rendering</b>		
Course Instructor	Ar. Prachitee Lad, Ar. Mukund Dalvi		
Year of Studies	1st Year B. Arch	Semester	I
Max. no. of Students	90	Duration	12 Weeks
Course Content	Architectural sketching & rendering is the process of creating two-dimensional and three-dimensional images of a proposed architectural design. The aim of this course is to make students aware about the various hand rendering techniques which can be used to enhance the presentation of the architectural drawings.		
Expected Outcomes	Students are expected to render the given architectural sketch/design in various mediums of rendering taught in the studio.		
Assessment Procedure	Progressive weekly assessment for each kind of rendering technique taught		
Course Code	BARE221 ELECTIVES AB		
Course Name	<b>AutoCAD Basics</b>		
Course Instructor	Ar. Gargi Karve		
Year of Studies	1st Year B. Arch	Semester	II
Max. no. of Students	90	Duration	12 Weeks
Course Content	The Electives is intended to introduce for the first time, a software - AutoCAD which performs as a drafting aid to Architect & designers in their academic and professional life. Not only the interface and commands are part of the subject, but also methodologies of optimizing time and precision which is important to be developed from the beginning are an essential part of the syllabus.		
Expected Outcomes	The students at the end of the course are expected to be able to use the software in design and other subjects and develop their skills during the course.		
Assessment Procedure	Assessment in stages of understanding of various commands of the software		

  
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### Details of Certificate Courses for Academic Year 2021-22

Course Code	BARE321 ELECTIVES AS		
Course Name	<b>Architectural Softwares- AutoCAD and SketchUP</b>		
Course Instructor	Ar. Deepa Desai, Ar. Ninad Sansare		
Year of Studies	2nd Year B. Arch	Semester	III
Max. no. of Students	95	Duration	14 Weeks
Course Content			
Learning architectural softwares is an essential skill set for contemporary architectural practices. Learning AutoCAD for the complex architectural drafting and SketchUP for the digital 3D form modulation enhances the creative ability of architectural students to understand space. This course aims to study basic and advanced commands for AutoCAD and SketchUP.			
Expected Outcomes			
Students are expected to produce computer aided 2D and 3D drawings for a small residential house designed in their previous semester.			
Assessment Procedure			
Progressive weekly assessment for small assignments to understand various commands in AutoCAD and SetchUp. Larger stage markings dealing with drafting of previous years design on the software in 2D and 3D			
Course Code	BARE421 ELECTIVES AM		
Course Name	<b>Analytical method for architectural case studies</b>		
Course Instructor	Ar. Ninad Sansare, Ar. Deepa Desai, Ar. Niropama S Sawant		
Year of Studies	2nd Year B. Arch	Semester	IV
Max. no. of Students	95	Duration	14 Weeks
Course Content			
A case study is a process of researching into a project and documenting through writings, sketches, diagrams, and photos. To understand the various aspects of designing and constructing a building one must consider learning from other people's mistakes. This course aims to develop a critical understanding of architectural case study as a method and to apply it for the design program.			
Expected Outcomes			
Students are expected to submit methodologically approached architectural case studies to draw lessons for the design program.			
Assessment Procedure			
Stage wise assements for understanding each parameter of an architectural case study			

  
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### Details of Certificate Courses for Academic Year 2021-22

Course Code	BARE521 ELECTIVES MC		
Course Name	<b>Mini City</b>		
Course Instructor	Ar. Deepa Desai, Ar. Alisha Acharya		
Year of Studies	3rdYear B. Arch	Semester	V
Max. no. of Students	80	Duration	12 Weeks
Course Content			
"Citymaking requires drawing together the strands of physical place, society and economy. Architects and urban planners deliver us a framework for streets, spaces and buildings, but it is the content, the activity, the people and the exchange of ideas, services and goods that ultimately makes the city. In this course students will learn basics of city making.			
Expected Outcomes			
Students are expected to develop a small version of a city by using all the learning from the lectures			
Assessment Procedure			
Progressive weekly assessment for ingenuity, creativity and sensitivity to users			
Course Code	BARE621 ELECTIVES BS		
Course Name	<b>Better Streets</b>		
Course Instructor	Ar. Mugdha Bakade		
Year of Studies	3rdYear B. Arch	Semester	VI
Max. no. of Students	20	Duration	16 Weeks
Course Content			
A street is the basic unit of urban space through which people experience a city. It is often misconceived as the two-dimensional surface that vehicles drive on when moving from one place to another. Streets are, in fact, multidimensional spaces consisting of many surfaces and structures. This course aims to provide students with the comprehensive understanding about urban streets.			
Expected Outcomes			
Small assignments based on observations and analysis of students' own urban neighbourhood would be expected.			
Assessment Procedures			
Assignment based assessment on a progressive weekly basis for aspects of neighborhood analysis			

  
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### Details of Certificate Courses for Academic Year 2021-22


Course Code	BARE621 ELECTIVES HC		
Course Name	<b>Heritage Conservation</b>		
Course Instructor	Ar. Deepa Desai		
Year of Studies	3rdYear B. Arch	Semester	VI
Max. no. of Students	20	Duration	16 Weeks
Course Content			
1. Introduction to the Heritage 2. Regional Expressions 3. Guest lecture 4. Pressures 5. Studio Interactions and Discussions			
Expected Outcomes			
Students are expected to Identify and Map the existing heritage in the neighbourhoods of Mumbai . Based on that they are expected to generate representation drawing for the same.			
Assessment Procedure			
Assessment in stages for identification of heritage, value assessment document and representation drawing			
Course Code	BARE621 ELECTIVES AF		
Course Name	<b>Architectural Fiction</b>		
Course Instructor	Ar. Mildred Jose		
Year of Studies	3rdYear B. Arch	Semester	VI
Max. no. of Students	20	Duration	16 Weeks
Course Content			
Cities are impregnated with memory, association, recall and resonance. They express multiple stories, meanings with evolving spatial forms and urban compositions. As 'Story telling' is about the construction of stories by setting up a time-line of events, design is based on the 'physical narration' by organizing spatial relationships. The elective focuses on building up an analogy of city building between these two processes of 'story telling' and 'spatial design'.			
Objectives and Expected Outcomes			
1) To enable one to be familiar with representing literary texts and vice versa 2) To be able to apply critical and theoretical approaches to analysis of literary texts 3) To identify, interpret ideas/themes that impact the future 4) To improve on communication skills 5) To adapt to new mediums to create multi-layered interactive stories/ experiences by a multitude of inputs			

  
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### Details of Certificate Courses for Academic Year 2021-22

Course Code	BARE621 ELECTIVES DL		
Course Name	<b>Daylighting</b>		
Course Instructor	Ar. Swanand Mahashabde		
Year of Studies	3rdYear B. Arch	Semester	VI
Max. no. of Students	20	Duration	16 Weeks
Course Content			
The elective course introduces students to the use of daylighting in architecture space with help of basic simulation techniques			
Expected Outcomes			
Understand importance of daylighting in building design. Understanding use of natural light through works of master architects. understand design solutions through analysis with basic software			
Assessment Procedure			
Assessment of critical analysis of case studies of master-architect buildings, assessment of use and inference of assignment done using software in a stagewise manner			

Course Code	BARE721 ELECTIVES GL		
Course Name	<b>Effective use of Glass in the Built Environment</b>		
Course Instructor	Ar. Mridula Pillai, Ar. Anuj Gudekar		
Year of Studies	4th Year B. Arch	Semester	VII
Max. no. of Students	50	Duration	12 Weeks
Course Content			
Understanding the manufacturing process of glass , so as to understand the embodied energy in its manufacture. Factors affecting the choice of Glass in the built environment through point of view of various stakeholders. Understand the Mechanical, Thermal & optical properties of glass. Understanding the Value Addition to the Glass- Tints, Coatings, fretting, toughening and lamination. Understanding the Glazing types. Energy Performance of Coated Glass for various Glazing type and comparison with the ECBC standards. understanding the choice and assembly of glazing type through LBNL's Window software.			
Expected Outcomes			
Students are taught to choose the glazing type for various climatic conditions, based on the data available through the LBNL's Window software. Using the data set from the above mentioned exercise is further used to analyse the performance in a conventional building using the spreadsheet calculations. These calculations takes into an Window to Wall Ratio (WWR) for all the cardinal directions. In addition these parameters are isolated to check the change in the building performance for the cooling loads.			
Assessment Procedure			
Assessment of 3 set assignments -			
<ol style="list-style-type: none"> <li>1. Effect of change in gap in the U-value and optical properties of a glazing system</li> <li>2. Creation of Glazing Systems and Window systems for 2 diverse climatic conditions</li> <li>3. Calculation of change in Annual Space-conditioning load using spreadsheet for change in Glazing System and change in WWR</li> </ol>			

  
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### Details of Certificate Courses for Academic Year 2021-22

Details of Certificate Courses for Academic Year 2021-22			
Course Code	BARE921 ELECTIVES CM		
Course Name	<b>Introduction to Construction Management</b>		
Course Instructor	Ar. Meghana Patil		
Year of Studies	5th Year B. Arch	Semester	IX
Max. no. of Students	20	Duration	16 Weeks
Course Content			
1. Roles and responsibilities of a construction manager 2. Project delivery methods, types of projects and scales of projects. 3. Management of money, time, men, material and machinery. 4. Learning about various planning techniques, PERT & Critical Path Method (CPM) 5. Risk evaluation, mitigation and management 6. Learning about bids, negotiations and tendering methods 7. The importance of avoiding and learning from mistakes. Impact of global and national policies on project planning and business			
Expected Outcomes			
Students form groups of 4-6 students each. Each group selects a small/medium-scale live architectural/ interior execution project for study. They are to identify all the discussed factors that a Construction manager deals with; within their projects and represent the information graphically. They shall analyze and present aspects of time, money, man management, material and machinery assessment.			
Assessment Procedure			
Assessment in stages -			
1. Identification of factors dealt with by a Construction Manager on site, and representation of information 2. Analysis and presentation of time as an aspect 2. Analysis and presentation of money as an aspect 2. Analysis and presentation of man-management as an aspect 2. Analysis and presentation of material and machinery as an aspect			
Course Code	BARE921 ELECTIVES ER		
Course Name	<b>Earthquake Resistant Architecture and Passive design</b>		
Course Instructor	Ar. Sachin Prabhu		
Year of Studies	5th Year B. Arch	Semester	IX
Max. no. of Students	20	Duration	12 Weeks
Course Content:			
Understanding of Earthquake, Why Earthquakes on planet Earth? Measurements of Earthquake shakings, Analysis of Last Century Earthquakes in India, Understanding aeffect of Earthquakes on buildings with respect to their strength. Designn strategies to make Earthquake Resistant buildings. Load bearing stuctures in Bricks and Stones. Frame structures and different trategies to make them Earthquake Resistant Buildings. Passive Design: Understanding of making buildings less energy consuming at schematic and planning level. Understanding Sun-path and possible wind flows to gain more natural sunlight and winds (Air-circulation) inside the building. Zonig of the building and fragmentation (Scooping) of the building is done too achieve maximum day-light and cross ventilation.			
Expected Outcomes:			
Students are designing G+1 Bungalow in Load-bearing (Submission 1) and RCC (Submission 2) frame structures as Earthquake resistant structure. The are showing different Earthquake resistant remedies in plan, section, elevations and working details. By understanding sun-path and possible wind directions, same bungalow plan is zoned and scooped out (fragmented) to get more Day-light and cross ventilation. (Sumission 3)			
Assessment Procedure			
3 assessments for the 3 mentioned submissions as given above			


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Course Code	BARE921 ELECTIVES HC		
Course Name	<b>Heritage Conservation</b>		
Course Instructor	Ar. Deepa Desai		
Year of Studies	5th Year B. Arch	Semester	IX
Max. no. of Students	20	Duration	12 Weeks
Course Content			
1. Know your heritage 2. Introduction to Conservation 3. Vocabulary of Conservation Process 4. Role of a conservation architect 5. Heritage walk in or near the city of Mumbai 6. Framework of conservation 7. Guest Lecture on conservation practice 8. Decay and Material 9. Scale of conservation 10. Studio Interactions and Discussions			
Expected Outcomes			
Students are expected to identify and document the existing heritage in Indian cities. Based on that they are expected to generate value assesment document and to generate representation drawing for the same.			
Assessment Procedure			
Assessment in stages for identification of heritage, value assessment document and representation drawing			
Course Code	BARE921 ELECTIVES RF		
Course Name	<b>Redevelopment &amp; Feasibility</b>		
Course Instructor	Ar. Anmol Warang		
Year of Studies	5th Year B. Arch	Semester	IX
Max. no. of Students	20	Duration	12 Weeks
Course Content			
Redevelopment' implies demolition of existing structure and building completely new structure. It is the most widely used tool for the upgradation of infrastructure and urban regeneration in Mumbai. The elective on Redevelopment discusses the importance of thoughtful redevelopment through an understanding of processes, rules and regulations, current trends and practices, etc. The student participants gain knowledge of various aspects that impact and issues that plague the redevelopment system.			
Expected Outcomes			
1. Understand the processes, rules and regulations governing the redevelopment of buildings in Mumbai. 2. Understand various clauses and sections of the MCGM DCPR 2034. 3. Gain knowledge about the historic development of Mumbai and the impact of past development strategies on the current status of Redevelopment., 4. Understand financial feasibility calculations to infer the possibility of success for redevelopment projects.			
Assessment Procedure			
Assignment based assessment for small exercises done for each aspect of understanding through the course.			

  
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Course Code	BARE1021 ELECTIVES PA		
Course Name	<b>Comprehensive Project Assessment</b>		
Course Instructor	Ar. Swanand Mahashabde		
Year of Studies	5th Year B. Arch	Semester	X
Max. no. of Students	60	Duration	12 Weeks
Course Content			
This elective course encourages students to assess their own design dissertation / thesis projects under set criteria encompassing topics of site analysis, sustainable strategies, water usage, LCA/LCC etc.			
Expected Outcomes			
Student produce a report with explanation of their thesis project with analysis and evidence against each criteria to be assessed.			
Assessment Procedure			
Assessment in for each parameter in stages: 1. site analysis 2. sustainable strategies used in design 3. LCA			

  
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