

**DR.BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
AURANGABAD**

SYLLABUS

FIFTH YR. B. ARCH

(SEMESTER – IX)

ACADEMIC YEAR -2021-22

P-17 BATCH (CBCS Scheme)

Subject Code No. ARC 511**PRACTICAL TRAINING –II**

SEM- IX		Contact Hr Per Week		Examination Scheme						Duration Of Theory Exam Hrs.
Sub Code	Subject	L	S	Home Assign	Theory	T.W	Viva	Total	Credits	
Studio										
ARC 511	PRACTICAL TRAINING - II	--	--	--	--	--	250	250	26	--

The duration of Practical Training: 16 Weeks:

The Practical Training shall be done /completed in the office / firm approved by the institute/college and shall be registered with Council of Architecture, New Delhi for at least 08 years.

Aim:

To enable the students to gain the kind and range of practical experience, this will prepare them for their likely professional responsibilities immediately after qualifying B. Arch degree.

Unit:

- To facilitate an understanding of the evolution of an architectural and allied project/s from the initial/sketch design to execution.
- To enable an orientation that would include the process of development of conceptual ideas, design and presentation skills, preparation of submission drawings, working drawings & detailing. Involvement in office discussions, clients' meetings, meetings with the contractor/s. Working on specification writing and tendering procedure.
- Site Visits- Site supervision during the execution of the project, co-ordination with the various consultants / agencies involved in the constructions process (like MEP, Structural Consultants & other).

At the end of the practical training, the student has to prepare and submit a Portfolio of work done during the training period containing – Certificate of the Architect (Training Completion Certificate), work done in the office as above along with the Log Book.

At the end of the semester, there will be an examination in the form of Viva-Voce; the student will be assessed jointly by Panel of Examiners (Internal and External Examiners) appointed by the university.

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AURANGABAD**

SYLLABUS

FIFTH YR. B. ARCH

(SEMESTER – X)

ACADEMIC YEAR -2021-22

P-17 BATCH (CBCS Scheme)

Subject Code No. ARC 521**PROFESSIONAL PRACTICE –II**

SEM- X		Contact Hr Per Week		Examination Scheme						Duration Of Theory Exam Hrs.
Sub Code	Subject	L	S	Home Assign	Theory	T.W	Viva	Total	Credits	
Theory										
ARC 521	PROFESSIONAL PRACTICE- II	3	--	20	80	--	--	100	3	3

Aim: To expose the students to issues concerning architectural practice.

Objectives: i) To enable the students to understand the issues of professional practice.
 ii) To expose and understand the students about the practice of Valuation, Arbitration, Easement, process of Land – Acquisition, etc.

Syllabus:**Unit-I: Valuation:**

Definition of Valuation, value, price & cost. Essential characteristic of value, classification of value- such as Assessed value, Book value, Salvage value, Scrap value, Monopoly value, Sentimental value, etc.

Purpose of Valuation- Income Tax, Wealth Tax, Mortgage of Property, Loan purpose from Bank or Financing Authorities, etc.

Methods of Valuation: 1. Land and Building Method or Physical Method -Situation, locality, area, shape, Ratio of frontage to depth of the property, Return frontage Encumbrances. Deprecations, Methods of calculating depreciation -straight line method, sinking fund method. Belting method of Valuation of land. Classification of Ownership - Freehold and Leasehold Tenures, Types of Leases. 2. Rental Method – Types of Rent- gross rent, standard rent, market rent, monopoly rent, etc. Capitalised value- Years of purchase, Outgoings, Repairs, Annuity, Period for Deferment, Revisionary Value of Land, etc.

Unit-II: Arbitration:

Introduction- Mediation and Conciliation- Main advantages of Settling the disputes and differences by Arbitration, disadvantages, Arbitration clause in the Contract, Arbitrator-Appointment, Qualification, Powers and Duties, Arbitration Agreement, Arbitral Award, Reasoned and Unreasoned Award- Scott's Schedule. Conduct of Arbitration Proceedings. Legal position of Excepted Matters.

Unit-III: Land Acquisition:

Introduction, basic principles of Land Acquisition Act, procedure of land acquisition – Investigation, Objections and Conformation, Claim and Award.

Unit-IV: Easement:

Meaning, Dominant heritage and Servient heritage. Characteristics of easement. Natural rights – Customary rights. Continuous and discontinuous easements. Methods of acquiring Easement. Essential conditions of enjoyment of easements. Easement of supports and drainage.

Unit-V: Standard Rent:

Introduction, Rent Control Act, Standard Rent, Methods of Ascertaining the Standard Rent- Theory of Comparables, Standard Rent by Investment Theory. Rent Agreement.

Home Assignment: Assignments on above topics (minimum Three): – includes – written manuals, PPT- presentations, etc.

Books / References:

1. Architects Act 1972 - CoA
2. Professional Practice – by Dr. Roshan Namavati
3. Publications / Hand-Book –by IIA
4. Ar. V.S. Apte, Architectural Practice and Procedure
5. Professional Practice In India by- Madhav Deobhakta & Meera Deobhakta
6. Articles form Journals & Magazines , prevailing Acts of Central & State Govt. of India

Subject Code No. ARC 522**DISSERTATION**

SEM- X		Contact Hr Per Week		Examination Scheme						Duration Of Theory Exam Hrs.
Sub Code	Subject	L	S	Home Assign	Theory	T.W	Viva	Total	Credits	
Studio										
ARC 522	DISSERTATION	--	24	--	--	125	200	325	20	--

Objectives:

The Dissertation (Architectural Design Thesis) is the culmination of the development of the student's knowledge, attitudes and skills over the course of studies in architecture.

It is an occasion for exercising conscious choices in the field, based on the student's personal abilities and inclinations, and for testing out his/her commitment. The student, in consultation with the faculty/guide, is expected to demonstrate through an inventive approach, his expertise in effecting positive changes in our built environment. The scope and extent of the dissertation work shall be substantial and realizable in application or concept as appropriate to the selected area of work.

Syllabus:**Unit-I:**

- The Dissertation project/topic to be selected in relation to the field of Architecture and Allied- Areas having suitable potential. It shall be most likely, in conformation with the context, the language, the culture, the tradition, the people, the region, the environment, the technology, etc.
- The project shall have the built-up area 3000 to 5000 sqm.(approx.)- (not too large in scale, because the project must be developed to design details and not too small to lack the positional of the requisite design complexities.)

Within the preview, students shall be encouraged to take up live proposal/s of appropriate potential; this will help the student to get into the practice directly.

At the end of the semester the student shall submit the entire portfolio containing – Synopsis, Case - Studies and Design proposal along with Dissertation Report – 2 copies (minimum).

The **Viva-voce** to be conducted as per university programme, the student will be assessed /examined jointly by the Panel of Examiners- containing Internal Examiner & the External Examiner.

SEM- X		Contact Hr Per Week		Examination Scheme						Duration Of Theory Exam Hrs.
Sub Code	Subject	L	S	Home Assign	Theory	T.W	Viva	Total	Credits	
Studio										
ARC 523	ELECTIVE-IV	--	3	--	--	--	75	75	3	--

Elective-IV: Disaster Mitigation and Management**Aim:**

To make the students understand Disasters, its impact, relationships with the developments, mitigation and management.

Objectives:

The course is intended to provide a general understanding about disasters caused by nature beyond the human control as well as the disasters and environmental hazards induced by human activities with emphasis on disaster preparedness, response and recovery.

Syllabus:**Unit-I:**

Hazards and Disasters, Types, Risk and Vulnerability in Disasters, Natural and Man-made disasters, Natural Disasters: earthquakes, floods, cyclone, landside, drought, etc. Man-made disasters: Terrorism, Fires, Gas and Radiations Leaks, Toxic waste disposal, etc. Damages caused, pre-disaster and post disaster preparedness, early warning strategies, National Disaster Management Guidelines.

Unit-II:

Monsoon, Cyclones and Earthquakes in India, prone regions in our country, do and don'ts related to disasters. Principle of emergency / crises management. The role of NGO's in disaster management. Role of various National and International Authorities related to disasters- like: National Disaster Management Authority (NDMA), Red Cross Society - International Committee of the Red Cross (ICRC), United Nations (UN), World Health Organization (WHO), etc,

Unit-III:

Inter- relationship between disasters and development. Disaster Risk Management in India - Disaster Risk Reduction (DRR) programme, various Disaster Management & Capacity Building programmes by Central and State Governments in India. Training of Human Resource in disaster risk reduction planning, awareness amongst common people, key responsibility of Architects, Engineers, Environmentalist, etc, in disaster reduction techniques. Disaster Management Act and Policy- The Disaster Management Act, 2005.

Unit-IV:

Application of remote sensing in disaster management- Role of GIS and Information Technology in Preparedness, Risk Assessment, Response and Recovery phases of disaster- Disaster Damage Assessment, Applications and Case Studies.

Term Work for Viva-Voce: Assignments, Presentations, Case studies, Proposals on the topic.

Viva Voce: on above topic.

Reference Books:

1. Introduction to Natural & Man –Made Disasters and their Effects on Building by- Roxanna McDonald
2. Seismic Design for Architects by – Andrew Charleson
3. Earthquake Resistant Building Design & Construction by- Norman B. Green
4. Disaster Management in India –Challenges & Strategies by- R. K. Dave
5. Disaster Management - by O.S. Dagur
6. Disaster Management E-Book -by Harsh K. Gupta
7. National Building Code (NBC)
8. The Disaster Management Act, 2005
9. Research Paper Presentations & Publication on the topic.
10. Geographic Information Systems and Environmental Modeling by- Keith C. Clarke, Bradley O. Parks, Michael P. Crane

Subject Code No. ARC 523

ELECTICVE – IV

SEM- X		Contact Hr Per Week		Examination Scheme						Duration Of Theory Exam Hrs.
Sub Code	Subject	L	S	Home Assign	Theory	T.W	Viva	Total	Credits	
Studio										
ARC 523	ELECTIVE-IV	--	3	--	--	--	75	75	3	--

Elective-IV: Sustainable Cities and Communities

Aim:

To provide an overview of the concepts of sustainable practices in urban and rural development.

Objectives:

The course is intended to provide a general understanding with the various issues like climate change, resource depletion etc. concept of sustainability and sustainable development. Understand low impact construction practices, life cycle costs and alternative energy resources. Familiarize the students with concepts of sustainable cities and communities and apply the knowledge into a development project.

Syllabus:

Unit-I:

Current scenario of development and its impacts, concepts- such as ecology, climate change, resource depletion. Introduction to term sustainable development, history of sustainable development, sustainable development goals, etc.

Unit-II:

Various aspects of sustainability- Social, Environmental and Economical. Sustainable site planning, low impact design, climate responsive architecture, bio mimicry, water and energy efficiency, social and economical equity

Unit –III:

Sustainable communities and cities- Sustainable urban planning and design, well being of people-physical, ecological, economic, social, health and equity factors. Introduction to Terminology- Sustainable urbanism and its history. Elements of sustainable urbanism- Compactness, sustainable corridors, pollution prevention, high performance buildings and infrastructure, clean energy mechanism

Unit-IV:

Introduction to various rating systems available for sustainable cities and communities- LEED ND, IGBC green townships, villages and cities.

Term work for Viva Voce: Assignments, Presentations, Case studies, Proposals on the topic – such as - case studies of sustainable cities/ urban areas, application of theory into a development project – townships/ neighbourhood/ villages, etc.

Viva Voce: on above topic.

Reference books

1. Our common future: Report of the World Commission on Environment and Development, 1987 oxford university press.
2. LEED ND- LEED for neighbourhood development published by USGBC.
3. IGBC green townships manual.
4. IGBC green cities manual
5. IGBC green villages manual
6. Research Paper Presentations & Publication on the topic.
7. Related Acts, of Centre or State Govt. of India.