**B.Arch.** — **Year 2018-23 (Scheme of Studies)** — **SOAP**

| Year | Sno | Course Code | Course Title | L | T | S | P | C |
|---|---|---|---|---|---|---|---|---|
| | | | **ODD SEMESTER** | | | | | |
| First | 1 | APAR117 | BASIC DESIGN & CREATIVE WORKSHOP | - | - | 12 | - | 12 |
| | 2 | APAR119 | INTRODUCTION TO BUILDING MATERIALS | 2 | - | - | - | 2 |
| | 3 | APAR129 | HISTORY OF CULTURE & CIVILISATION | 2 | | - | - | 2 |
| | 4 | APAR123 | ARCHITECTURAL DRAWING-I | - | - | 6 | - | 6 |
| | 5 | APAR125 | ARTS AND GRAPHICS-I | - | - | 4 | - | 4 |
| | 6 | APCE113 | STRUCTURAL DESIGN-I | 2 | 1 | - | - | 3 |
| | 7 | APCH125 | ENVIRONMENTAL STUDIES | 3 | - | - | - | 3 |
| | | | | | | | | |
| | 32 | | TOTAL | 9 | 1 | 22 | 0 | 32 |
| | | | **EVEN SEMESTER** | | | | | |
| | 1 | APAR118 | ARCHITECTURAL DESIGN-I | - | - | 6 | - | 6 |
| | 2 | APAR120 | BUILDING CONSTRUCTION & MATERIALS-I | - | - | 6 | - | 6 |
| | 3 | APAR128 | THEORY OF DESIGN | 2 | | - | - | 2 |
| | 4 | APAR124 | ARCHITECTURAL DRAWING-II | - | - | 4 | - | 4 |
| | 5 | APAR126 | WORKSHOP | - | - | - | 4 | 2 |
| | 6 | APCE114 | STRUCTURAL DESIGN-II | 2 | 1 | - | - | 3 |
| | 7 | APEL101 | COMMUNICATION SKILLS | 4 | - | - | - | 4 |
| | 8 | APEL171 | COMMUNICATION SKILLS LAB | - | - | - | 2 | 1 |
| | 31 | | TOTAL | 8 | 1 | 16 | 6 | 28 |
| Second | 1 | APAR229 | ARCHITECTURAL DESIGN-II | - | - | 10 | - | 10 |
| | 2 | APAR241 | BUILDING CONSTRUCTION AND MATERIALS-II | - | - | 5 | - | 5 |
| | 3 | APAR231 | HISTORY OF ARCHITECTURE-I | 2 | | - | - | 2 |
| | 4 | APAR239 | ENVIRONMENT & CLIMATE | 2 | | - | - | 2 |
| | 5 | APAR225 | ARTS & GRAPHICS-II | - | - | 3 | - | 3 |
| | 6 | APAR227 | COMPUTER APPLICATION IN ARCHITECTURE-I | - | - | - | 4 | 2 |
| | 7 | APCE229 | STRUCTURAL DESIGN-III | 2 | - | - | - | 2 |
| | 8 | APCE233 | SURVEYING & LEVELLING | 1 | - | - | - | 1 |
| | 9 | APCE235 | SURVEYING & LEVELLING LAB | - | - | - | 2 | 1 |
| | 31 | | TOTAL | 7 | 0 | 18 | 6 | 28 |
| | 1 | APAR218 | ARCHITECTURAL DESIGN-III | - | - | 10 | - | 10 |
| | 2 | APAR232 | BUILDING CONSTRUCTION & MATERIALS-III | - | - | 5 | - | 5 |
| | 3 | APAR226 | HISTORY OF ARCHITECTURE-II | 2 | | - | - | 2 |
| | 4 | APAR222 | ARCHITECTURAL GRAPHICS | - | - | 4 | - | 4 |
| | 5 | APAR224 | COMPUTER APPLICATION IN ARCHITECTURE-II | - | - | - | 4 | 2 |
| | 6 | APCE232 | STRUCTURAL DESIGN-IV | 2 | 0 | - | - | 2 |
| | 7 | APCE230 | BUILDING SERVICES-I (WATER SUPPLY & SANITATION) | 2 | - | - | - | 2 |
| | | | | | | | | |
| | | | | | | | | |
| | 29 | | TOTAL | 6 | 0 | 19 | 4 | 27 |
| Third | 1 | APAR325 | ARCHITECTURAL DESIGN -IV | - | - | 10 | - | 10 |
| | 2 | APAR333 | BUILDING CONSTRUCTION AND MATERIALS-IV | - | - | 5 | - | 5 |
| | 3 | APAR327 | MODERN WORLD ARCHITECTURE | 2 | - | - | - | 2 |
| | 4 | APAR329 | HOUSING | 2 | - | - | - | 2 |
| | 5 | APAR323 | COMPUTER APPLICATION IN ARCHITECTURE-III | - | - | - | 4 | 2 |
| | 6 | APCE323 | STRUCTURAL DESIGN-V | 2 | | - | - | 2 |
| | 7 | APCE317 | ESTIMATING, COSTING & SPECIFICATIONS | 2 | - | - | - | 2 |
| | 8 | APEE321 | BUILDING SERVICES-II (ELECTRICAL & LIGHTING) | 2 | - | - | - | 2 |
| | | | TOTAL | 10 | 0 | 15 | 4 | 27 |
| | 1 | APAR318 | ARCHITECTURAL DESIGN-V | - | - | 10 | - | 10 |
| | 2 | APAR322 | BUILDING CONSTRUCTION AND MATERIALS-V | - | - | 5 | - | 5 |
| | 3 | APAR312 | TOWN PLANNING | 2 | | - | - | 2 |
| | 4 | APAR310 | WORKING DRAWING & BUILDING BYELAWS | - | - | 6 | - | 6 |
| | 5 | APCE334 | STRUCTURAL DESIGN-VI | 2 | | - | - | 2 |
| | 6 | APAR328 | BUILDING SERVICES-III (ACOUSTICS ) | 1 | 1 | - | - | 2 |
| | 7 | APAR330 | AIR CONDITIONING & MECHANICAL SERVICES | 1 | 1 | - | - | 2 |
| | | | | | | | | |
| | | | TOTAL | 6 | 2 | 21 | 0 | 29 |
| Fourth | 1 | APAR419A | ARCHITECTURAL DESIGN -VI | - | - | 10 | - | 10 |
| | 2 | APAR421A | BUILDING CONSTRUCTION AND MATERIALS-VII | - | - | 5 | - | 5 |
| | 3 | APAR431A | PROFESSIONAL PRACTICE AND OFFICE MANAGEMENT | 2 | - | - | - | 2 |
| | 4 | APAR425A | PROJECT CONSTRUCTION MANAGEMENT | 2 | - | - | - | 2 |
| | 5 | APAR427A | ELECTIVE-I (SITE PLANNING & LANDSCAPE DESIGN) | 2 | 1 | - | - | 3 |
| | 6 | APAR513A | ELECTIVE-II (INTERIOR DESIGN) | 2 | 1 | - | - | 3 |
| | 25 | | TOTAL | 8 | 2 | 15 | 0 | 25 |
| | 1 | APAR402A | PROFESSIONAL TRAINING | - | - | - | - | 18 |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | 0 | | TOTAL | 0 | 0 | 0 | 0 | 18 |
| Fifth | 1 | APAR519A | DISSERTATION | - | - | 6 | - | 6 |
| | 2 | APAR521A | URBAN DESIGN | - | - | 10 | - | 10 |
| | 3 | APAR407A | ELECTIVE-III (ARCHITECTURAL CONSERVATION) | 2 | 1 | - | - | 3 |
| | 4 | APAR413A | ELECTIVE-IV (SUSTAINABLE ARCHITECTURE) | 2 | 1 | - | - | 3 |
| | 22 | | TOTAL | 4 | 2 | 16 | 0 | 22 |
| | 1 | APAR520A | ARCHITECTURAL THESIS | - | - | 18 | - | 18 |
| | 2 | APAR522B | SEMINAR | - | - | 4 | - | 4 |
| | | | | | | | | |
| | | | | | | | | |
| | 22 | | TOTAL | 0 | 0 | 22 | 0 | 22 |

**Elective Subjects**

| | | List of Electives | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | APAR407 | ARCHITECTURAL CONSERVATION | 2 | 1 | - | - | 3 |
| 2 | APAR427 | SITE PLANNING & LANDSCAPE DESIGN | 2 | 1 | - | - | 3 |
| 3 | APAR411 | ART MOVEMENTS & ARCHITECTURE | 2 | 1 | - | - | 3 |
| 4 | APAR413 | SUSTAINABLE ARCHITECTURE | 2 | 1 | - | - | 3 |
| 5 | APAR415 | INTELLIGENT BUILDINGS | 2 | 1 | - | - | 3 |
| 6 | APAR433 | VISUAL ARTS | 2 | 1 | - | - | 3 |
| 7 | APAR507 | LOW COST CONSTRUCTION TECHNOLOGY | 2 | 1 | - | - | 3 |
| 8 | APAR509 | WATER RESOURCE MANAGEMENT | 2 | 1 | - | - | 3 |
| 9 | APAR511 | INTEGRATED WASTE MANAGEMENT & TECHNOLOGY | 2 | 1 | - | - | 3 |
| 10 | APAR513 | INTERIOR DESIGN | 2 | 1 | - | - | 3 |
| 11 | APAR515 | VERNACULAR ARCHITECTURE | 2 | 1 | - | - | 3 |
| 12 | APAR523A | PARAMETRIC DESIGN | 1 | 2 | - | - | 3 |

**Note: Educational Tour shall be conducted once a year in the I,II & assessed in relevance as part of various appropriate theory and studio courses**

| | |
|---|---|
| **Total Hours: Lect[L]+Prac[P]+Stud[S]+Tut[T]** | **250** |
| **Total Credits** | **258** |

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B. Arch

| APAR520A | ARCHITECTURAL THESIS | L | T | S | C |
|---|---|---|---|---|---|
| Version 1.0 | | 0 | 0 | 10 | 18 |
| Pre-requisites/Exposure | Completion of All Design Studios till Semester VIII, Urban Design, Professional Practice | | | | |
| Co-requisites | Integration of Services, Structural and Construction systems with Design | | | | |

**Course Objectives**

1. To understand the context and validate the need for a particular topic/ on-going project as Thesis topic.
2. To independently understand and analyse the design brief, site conditions, bye laws, context and limitations of the design project and propose a concept design
3. To enable the students to apply the knowledge learnt in the previous semesters in architectural design, construction and building services.
4. To sensitize the students to space-specific contextual factors in designing.
5. To sensitize the students to the special needs of the differently abled people, suffering from various types of physical limitations, as they negotiate the built environment.

**Course Outcomes**

On successful completion of this course, the students have capability to:

CO1. To independently understand and analyse the design brief, site conditions, bye laws, context and limitations of the design project and propose a concept design.

CO2. Understand the process of presenting an architectural project in totality with full set of drawings, model, research work and details explaining the background study, design brief, context and culmination of the entire research and design process.

CO3. Create Architectural models of structural forms and important aspects of functionality.

CO4. Apply all bye laws including fire safety norms for the building.

CO5. To independently complete the graduation project and transition into professional practice smoothly.

**Catalog Description**

The multiple challenges of 'built environment' offer unlimited scope for the choice of an architectural design thesis. The selection of the thesis subject may result either from issue/s involved, or from the challenges of design, or the inherent and acquired aptitude of a student, which he/she wishes to perfect and present. The variety of intentions give students the choice to select the topic of the thesis from a purely hypothetical to a 'live' programme, as long as the topic can result in tangible 'built environment' solution.

**Course Content**

For reasons of maintenance of uniformity in results and standards, the thesis presentation shall be in two distinct compartments: a report comprising of all the preliminary studies required for the thesis topic, and the final design solution.

The Thesis report shall consist of all relevant contextual studies: of user, place and time to enable the formulation of design criteria.

The design solution shall be in the form of sheets and models of the concept and design and l shalfurther include the presentation of at least one specific aspect relevant to the selected topic in complete detail.

The report, in triplicate, shall be submitted in bound form together with prints/photographs of

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all the drawings and models.

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination/Jury**

Examination Scheme:

| Components | Internal Jury | External Jury |
|---|---|---|
| Weightage (%) | 50 | 50 |

**Relationship between the Course Outcomes (COs) and Program Outcomes (POs)**

| Mapping between COs and POs | | |
|---|---|---|
| | Course Outcomes (COs) | Mapped Program Outcomes |
| CO1 | To independently understand and analyse the design brief, site conditions, bye laws, context and limitations of the design project and propose a concept design. | PO1, PO2, PO3, PO4 |
| CO2 | Understand the process of presenting an architectural project in totality with full set of drawings, model, research work and details explaining the background study, design brief, context and culmination of the entire research and design process. | PO1, PO2 |
| CO3 | Create Architectural models of structural forms and important aspects of functionality. | PSO1, PSO2 PO1 |
| CO4 | Apply all bye laws including fire safety norms for the building. | PO1 |
| CO5 | To independently complete the graduation project and transition into professional practice smoothly. | PO4, PSO4, PSO5 |

| Programme and Course Mapping | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PSO1** | **PSO2** | **PSO3** | **PSO4** | **PSO5** |
| **CO1** | 3 | | | 3 | | | | 3 | | | | |
| **CO2** | 3 | | | 3 | | | | | 2 | 3 | | 3 |
| **CO3** | | 3 | 3 | 3 | | | | | | 3 | 2 | 3 |
| **CO4** | | | | 3 | 2 | | | | | 3 | | 3 |
| **CO5** | | | | | | 3 | 3 | | | | 2 | 3 |
| **CO6** | | | | | | | | | | | | |
| **CO7** | | | | | | | | | | | | |
| 1=lightly mapped | | | | 2= moderately mapped | | | | | 3=strongly mapped | | | |

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B.Arch

**Course Objectives**

1. The subject Dissertation focuses on, research, in the area of Architecture and Allied subjects in order to make students understand about social and technological needs of the era.
2. They start understanding the subject by investigating relevant case studies, data collection and the existing literature which can be from book or web.
3. Then they are expected to present their research/ data orally and graphically.
4. This will help them to improve their analytical and presentation skills.

**Course Outcomes**

On completion of this course, the students will be able to

CO1. Present data (conceptual, historical, analytical, and comparative or in any other area related to Architecture & habitat) at all stages during the entire semester.

CO2. Identification of an appropriate and focused research topic reflecting social and technological needs of the day.

CO3. Formulate synopsis including objectives, scope of work, methodology of work, case studies to be undertaken, site selection culminating in broad functional requirements.

CO4. An investigation of the topic using an analysis of existing literature, case studies and other data sources.

CO5. Develop understanding of the research topic

CO6. Able to do find out conclusions from the research

CO7. Ability to carry out independent viewpoint in interpretation and analysis.

CO8. Present the submission for all stages in print and digital mode.

**Catalog Description**

This course helps the students to develop their critical thinking in order to make them prepared for final thesis project which they will attend in final year of their degree. The main objectives of the course are to formulate the synopsis. This includes deciding the objectives of the research, its scope, methodology, relevant case studies to be undertaken and finally culminating in, broad requirements of the research. At the end, the students are expected to draw the conclusion which can be same as they thought when started their research work or it can be different.

The submission format for all stages shall be print and digital. The data (conceptual, historical, analytical, and comparative or in any other area related to Architecture & habitat) are required to be presented at all stages during the entire semester.

| **APAR519A** | **DISSERTATION** | **L** | **T** | **S** | **C** |
|---|---|---|---|---|---|
| **Version 1.0** | | **0** | **0** | **6** | **6** |
| **Pre-requisites/Exposure** | Basic knowledge of research | | | | |
| **Co-requisites** | Communication skills | | | | |

**Course Content**

The dissertation shall entail the following:

• Identification of an appropriate and focused research topic reflecting social and technological needs of the day.

• Formulate synopsis including objectives, scope of work, methodology of work, case studies to be undertaken, site selection culminating in broad functional requirements.

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• An investigation of the topic using an analysis of existing literature, case studies and other data sources.
• To develop understanding of the research topic.
• Conclusions from the research

The dissertation shall be based on empirical study, field work, and textual analysis in the field of urban and rural planning. It should demonstrate candidate's capacity for analysis and judgment as also her/his ability to carry out independent viewpoint in interpretation.

The dissertation shall present an orderly & critical exposition of existing knowledge of the subject or shall embody results of original interpretation and analysis & demonstrate the capacity of the candidate to do independent research work. While writing the dissertation, the candidate shall lay out clearly the work done by her/him independently and the sources from which she/he has obtained other information.

The dissertation shall be well structured document with clear objectives, well-argued and appropriate conclusions indicating an appropriate level of expertise. The submission format for all stages shall be print and digital. Seminars in related areas to the dissertation topic (conceptual, historical, analytical, and comparative or in any other area related to Architecture & habitat) are required to be presented at all stages during the entire semester.

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination**

Examination Scheme:

| Components | Mid term Jury | End term Internal Jury | End term External Jury |
|---|---|---|---|
| Weightage (%) | 20 | 30 | 50 |

**Relationship between the Course Outcomes (COs) and Program Outcomes (POs)**

| Mapping between COs and POs | | |
|---|---|---|
| | Course Outcomes (COs) | Mapped Program Outcomes |
| CO1 | Present data (conceptual, historical, analytical, and comparative or in any other area related to Architecture & habitat) at all stages during the entire semester. | PO1 |
| CO2 | Identification of an appropriate and focused research topic reflecting social and technological needs of the day. | PO2 |
| CO3 | Formulate synopsis including objectives, scope of work, methodology of work, case studies to be undertaken, site selection culminating in broad functional requirements. | PO4 |
| CO4 | An investigation of the topic using an analysis of existing literature, case studies and other data sources. | PO5, PO6 |
| CO5 | Develop understanding of the research topic | PO1 |
| CO6 | Able to do find out conclusions from the research | PO2 |
| CO7 | Ability to carry out independent viewpoint in interpretation and analysis. | PO4 |
| CO8 | Present the submission for all stages in print and digital mode. | PO5, PO6 |

| Programme and Course Mapping | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PSO1** | **PSO2** | **PSO3** | **PSO4** | **PSO5** |

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| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | | | **3** | | | | | | | | | **1** |
| **CO2** | | | | **3** | | | | | | | | **1** |
| **CO3** | | | | | **3** | **3** | **3** | | | | | **2** |
| **CO4** | | | | **3** | | **3** | | | | | | **3** |
| **CO5** | | | | | | | **3** | | | | | **3** |
| **CO6** | | | | | | | | | | | | |
| **CO7** | | | | | | | | | | | | |
| 1=lightly mapped | | | | | 2= moderately mapped | | | | 3=strongly mapped | | | |

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B.ARCH

**SEMESTER VIII**

APAR402A PROFESSIONAL TRAINING

**Course Objectives**

1. To offer students an opportunity to work in an architect's office and get acquainted with the demands of the profession.
2. Improve communication and analytical skills for handling the assigned task.
3. Able to create portfolio which include two sets of drawings showing construction system and materials, services and architectural presentation drawings.

**Course Outcomes**

On successful completion of this course, the students have capability to

CO1. Practical Training which is to be undertaken with an architect registered with the Council of Architecture.

CO2. The student will perform duties under an architect with minimum professional experience of ten years le to gauge the role of density, mixed land use, ground coverage and developmental control needs for the design of housing.

CO3. The student trainees should take prior approval of the Architect's office they intend to join, from the concerned authority in the Department of Architecture.

CO4. The duration will be of 22 weeks of inducting and discharging of duties by the student

CO5. An exposure to the processes and challenges of designing within constraints of time is learnt.

**Catalog Description**

To offer students an opportunity to work in an architect's office and get acquainted with the demands of the profession

**Course Content**

The 22 week office training exposes students to the processes and challenges of designing in the real world. Students are expected to learn various aspects of the design process including design development, working drawings, presentation drawings, site visits, client and consultant meetings, and Project Management.

The Training Report shall consist of the various drawings, observations, technical graphic data, design, structure, construction methods, services, use of material etc. obtained during the process of training. The building study shall be a critical appraisal of one of the noted buildings designed and supervised by the firm in which the candidate has taken the training. The Building Material Study shall include pertinent data, characteristics and applications of a contemporary building material. The detailing study shall deal with the various aspects of an interesting detail done by the firm, where the candidate has done the training or any other project of interest

**Modes of Evaluation: Quiz/Assignment/ presentation/ extempore/ Written Examination**

Examination Scheme:

| Components | End Term Internal Jury | End Term External Jury |
|---|---|---|

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| | | |
|---|---|---|
| Weightage (%) | 50 | 50 |

**Relationship between the Course Outcomes (COs) and Program Outcomes (POs)**

| Mapping between COs and POs | | |
|---|---|---|
| | Course Outcomes (COs) | Mapped Program Outcomes |
| CO1 | Practical Training which is to be undertaken with an architect registered with the Council of Architecture. | PO1 |
| CO2 | The student will perform duties under an architect with minimum professional experience of ten years le to gauge the role of density, mixed land use, ground coverage and developmental control needs for the design of housing. | PO2, PO3 |
| CO3 | The student trainees should take prior approval of the Architect's office they intend to join, from the concerned authority in the Department of Architecture. | PO4 |
| CO4 | The duration will be of 22 weeks of inducting and discharging of duties by the student | PO5, PO6 |
| CO5 | An exposure to the processes and challenges of designing within constraints of time is learnt. | PO5, P07 |

| **Programme and Course Mapping** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PSO1** | **PSO2** | **PSO3** | **PSO4** | **PSO5** |
| **CO1** | | 2 | 3 | 3 | 2 | 3 | 3 | 2 | | | | 2 |
| **CO2** | | 2 | | 3 | 3 | 3 | 2 | | | 2 | 2 | 2 |
| **CO3** | | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | | 2 |
| **CO4** | | | | | 3 | | 3 | | | | | 3 |
| **CO5** | | | | | | | | | | | | |
| **CO6** | | | | | | | | | | | | |
| **CO7** | | | | | | | | | | | | |
| 1=lightly mapped | | | | | 2= moderately mapped | | | | | 3=strongly mapped | | |

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