



| COURSE PLAN - PART I                     |   |                |              |
|--|---|----------------|--------------|
| Name of the programme and specialization | B.Arch., Architecture                   |                |              |
| Course Title                             | Building Construction and Materials -IV |                |              |
| Course Code                              | AR307                                   | No. of Credits | 3            |
| Course Code of Pre-requisite subject(s)  | N.A.                                    |                |              |
| Session                                  | July 2019                               | Section        | -            |
| Name of Faculty                          | AMALAN SIGMUND KAUSHIK S                | Department     | Architecture |
| Official Email                           | kaushik@nitt.edu                        | Telephone No.  | 9843294937   |
| Name of Course Coordinator               | N.A.                                    |                |              |
| Course Type -                            | <input checked="" type="checkbox"/>     | Core course    |              |

**Syllabus (approved in BoS)**  
Flexible curriculum of B.arch as approved by BoS

**COURSE OBJECTIVES**  
To provide knowledge and skills to understand the different types of foundations, footings, expansion joints.  
To understand the principles of temporary works such as shuttering, centering and scaffolding.  
To understand the different components and types of casement windows.

**MAPPING OF COs with POs**

| Course Outcomes   | Programme Outcomes (PO) |
|---|-------------------------|
| 1. Understanding the concepts of foundations, its principles & construction of different types of foundations- shallow and deep foundations.  |                         |
| 2. Understanding the different materials of construction & details of R.C.C. footings, Raft foundations, Pile foundations.  |                         |
| 3. Understanding the purpose and functions of joints in Building construction, types of joints that occur in Buildings.   |                         |
| 4. Understanding the principles of temporary works such as shuttering, centering and scaffolding, Form work, Centering and scaffolding materials used for these temporary structures. |                         |
| 5. To familiarize about the different components and types of casement windows  |                         |

| COURSE PLAN – PART II   |  |   |                                    |
|---|--|---|------------------------------------|
| COURSE OVERVIEW   |  |   |                                    |
| Basics of foundation, footing, expansion joints, temporary structures and casement windows. |  |   |                                    |
| COURSE TEACHING AND LEARNING ACTIVITIES   |  |   |                                    |
| S.No.   | Week/Contact Hours                       | Topic   | Mode of Delivery                   |
| 1   | 1 <sup>st</sup> to 5 <sup>th</sup> week  | Understanding the concepts of foundations, its principles & construction of different types of foundations, Raft foundations, Pile foundations.   | Lecture/<br>Discussions/<br>Studio |
| 2   | 6 <sup>th</sup> to 8 <sup>th</sup> week  | Purpose and functions of joints in Building construction, types of joints that occur in Buildings Expansion joints in Brick walls and R.C.C. framed structures and its construction details | Lecture/<br>Discussions/<br>Studio |
| 3   | 9 <sup>th</sup> to 11 <sup>th</sup> week | Shuttering, centering and scaffolding, Form work, Centering and scaffolding materials   | Lecture/<br>Discussions/<br>Studio |



# NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

## DEPARTMENT OF ARCHITECTURE

|   |   |  |                                 |
|---|---|--|---------------------------------|
| 4 | 12 <sup>th</sup> to 14 <sup>th</sup> week | Study of casement windows, steel casement windows, its components                | Lecture/<br>Discussions/ Studio |
| 5 | 15 <sup>th</sup> to 16 <sup>th</sup> week | Methods of fixing the steel window, Ventilator frames to walls, fixing of glass. | Lecture/<br>Discussions/ Studio |

### COURSE ASSESSMENT METHODS

| S.No. | Mode of Assessment       | Week                                     | Duration | % Weightage |
|-------|--------------------------|--|----------|-------------|
| 1     | Continuous assessments   | 1 <sup>st</sup> to 8 <sup>th</sup> week  | -        | 20          |
| 2     | Cycle Test -1            | 12 <sup>th</sup> week                    | 1 hr     | 20          |
| 3     | Continuous assessments   | 9 <sup>th</sup> to 16 <sup>th</sup> week | -        | 20          |
| CPA   | Compensation Assessment* | 13 <sup>th</sup> week                    | 1 hr     | 20          |
| 4     | Final Assessment *       | End Semester                             | 3 hr     | 40          |

### COURSE EXIT SURVEY

Feedback will be obtained from MIS by the institute before the end of the semester

### COURSE POLICY

- For a student to secure a minimum of E grade, he/ she has to secure a minimum of 40% in the cumulative assessment in theory courses and in theory cum studio/ laboratory courses.
- Any late submissions of assignments will be penalized

### ATTENDANCE POLICY (A uniform attendance policy as specified below shall be followed)

- At least 75% attendance in each course is mandatory.
- A maximum of 10% shall be allowed under On Duty (OD) category.
- Students with less than 65% of attendance shall be prevented from writing the final assessment and shall be awarded 'V' grade.

### ACADEMIC DISHONESTY & PLAGIARISM

- Possessing a mobile phone, carrying bits of paper, talking to other students, copying from others during an assessment will be treated as punishable dishonesty.
- Zero mark to be awarded for the offenders. For copying from another student, both students get the same penalty of zero mark.
- The departmental disciplinary committee including the course faculty member, PAC chairperson and the HoD, as members shall verify the facts of the malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.
- The above policy against academic dishonesty shall be applicable for all the programmes.

### ADDITIONAL INFORMATION, IF ANY

### FOR APPROVAL

S.A.S.

Course Faculty \_\_\_\_\_

CC- Chairperson

HOD