



DEPARTMENT OF ARCHITECTURE

COURSE PLAN – PART I			
Name of the programme and specialization	B.Arch. (Bachelor of Architecture)		
Course Title	Construction Technology		
Course Code	AR 559	No. of Credits	3
Course Code of Pre-requisite subject(s)			
Session	July 2023	Section (if, applicable)	NA
Name of Faculty	Prof. Lakshya Satija	Department	Architecture
Official Email	<a href="mailto:lakshyasatija@nitt.edu">lakshyasatija@nitt.edu</a>	Telephone No.	+91 95606 67663
Name of Course Coordinator(s) (if, applicable)	NA		
Official E-mail	NA	Telephone No.	NA
Course Type (please tick appropriately)	Elective course		
Syllabus (approved in BoS)			
<p>Planning - pre-stressed, concrete constructions pre-cast concrete and prefabrication system - Modular coordination.</p> <p>Modern Construction Materials - Manufacture, storage, transportation and erection of pre-cast component forms, moulds and scaffoldings in construction - safety in erection and dismantling of constructions.</p> <p>Construction equipment: Tractors, bulldozers, shovels, draglines, cableways and belt conveyors, batching plants - Transit mixers and agitator trucks used for ready mix concrete pumps, Guniting equipment - Air compressors - welding equipment - cranes and other lifting devices. Choice of construction equipment for different types of works.</p> <p>Planning and scheduling for high rise building: Scheduling- Simulation – Typical Floor Construction Cycle – Appropriate working schedule. Overview of construction management topics including estimating, cost control, quality control, safety, productivity, value engineering, claims, and legal issues.</p>			
COURSE OBJECTIVES			
<p>To familiarise the students with the following:</p> <ol style="list-style-type: none"> <li>Pre-stressing and Post-tensioning of concrete structural members.</li> <li>Pre-cast, pre-fabricated and modular construction techniques.</li> <li>Modern construction systems, techniques and material.</li> <li>Construction equipment for various types of construction activities.</li> </ol>			



v) Design mix of concrete, types of cement, and admixtures.	
vi) Site soil investigation and soil stabilisation.	
vii) Overview of planning and scheduling of construction projects.	
<b>MAPPING OF COs with POs</b>	
<b>Course Outcomes</b>	<b>Programme Outcomes (PO) (Enter Numbers only)</b>
On the completion of the course, the students will know about:	
1. Pre-cast, pre-fabricated and modular construction techniques.	
2. Modern construction systems and various construction equipment.	
3. Design mix of concrete, types of cement, and admixtures.	
4. Site soil investigation and soil stabilisation.	
5. Planning and scheduling of construction projects.	

<b>COURSE PLAN – PART II</b>			
<b>COURSE OVERVIEW</b>			
During the course, the students will be learning through lectures, presentations and exercises. The topics include – Pre-fabricated and modular construction, Modern construction systems and techniques, Construction equipment, Design mix of concrete, Site soil investigation, and planning and scheduling of construction projects.			
<b>COURSE TEACHING AND LEARNING ACTIVITIES</b>			
<b>S.No.</b>	<b>Week/Contact Hours</b>	<b>Topic</b>	<b>Mode of Delivery</b>
1	Weeks 1, 2, 3	<ul style="list-style-type: none"> <li>Pre-stressing and Post-tensioning of concrete structural members</li> <li>Pre-cast, pre-fabricated and modular construction techniques</li> </ul>	Chalk and talk, Presentations, Flip classes, Exercises
2	Weeks 4, 5	<ul style="list-style-type: none"> <li>Modern construction systems, techniques and material</li> </ul>	
3	Weeks 6, 7, 8	<ul style="list-style-type: none"> <li>Construction equipment for various types of construction activities</li> <li>Site soil investigation and soil stabilisation</li> </ul>	
4	Weeks 9, 10	<ul style="list-style-type: none"> <li>Design mix of concrete, types of cement, and admixtures</li> </ul>	



5	Weeks 11, 12	<ul style="list-style-type: none"> <li>Overview of planning and scheduling of construction projects</li> </ul>	
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**COURSE ASSESSMENT METHODS** (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Exercise/ Assignment 1	4 <sup>th</sup> week		20
2	Class test 1	6 <sup>th</sup> week		10
3	Exercise/ Assignment 2	10 <sup>th</sup> week		20
4	Class test 2	12 <sup>th</sup> week		15
CPA	Compensation Assessment*	14 <sup>th</sup> week		
5	Class participation			5
6	Final Assessment *	18 <sup>th</sup> week	3 hours	30

\*mandatory; refer to guidelines on page 4

**COURSE EXIT SURVEY** (mention the ways in which the feedback about the course shall be assessed)

The students will be given a feedback form that will be filled and collected.

**COURSE POLICY** (including compensation assessment to be specified)

**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



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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

Course Faculty

*labshya*

CC- Chairperson

*L. Saikala*  
(DY. L. SAIKALA)

HOD

*K. Th*