NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

OK

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

COURSE PLAN – PART I			
Name of the programme and specialization	B.Tech, Mechanical Engineering		
Course Title	Basics of Civil Engineering		
Course Code	CEIR11	No. of Credits	2
Course Code of Pre-requisite subject(s)			
Session	January 2023	Section (if, applicable)	A & B
Name of Faculty	Dr. Greegar George	Department	Civil Engineering
Official Email	greegar@nitt.edu	Telephone No.	9483742674
Name of Course Coordinator(s) (if, applicable)			
Official E-mail		Telephone No.	0431 2503172
Course Type (please tick appropriately)	[T] Core course	[ ] Elective course	

Syllabus (approved in BoS)

Properties and uses of construction materials - stones, bricks, cement, concrete and steel.

Site selection for buildings - Component of building - Foundation- Shallow and deep foundations - Brick and stone masonry - Plastering - Lintels, beams and columns - Roofs.

Roads-Classification of Rural and urban Roads- Pavement Materials-Traffic signs and road Marking-Traffic Signals.

Surveying - Classification-Chain Survey-Ranging-Compass Survey-exhibition of different survey equipment.

Sources of Water - Dams- Water Supply-Quality of Water-Wastewater Treatment – Sea Water Intrusion – Recharge of Ground Water.

COURSE OBJECTIVES

1. To give an overview of the fundamentals of the Civil Engineering fields to the students of all branches of Engineering,
2. To realize the importance of the Civil Engineering profession in fulfilling societal needs.

MAPPING OF COs with POs

Course Outcomes

1. The students will gain knowledge on site selection.
2. The students will gain knowledge on construction materials.
3. The students will gain knowledge on components of buildings.
4. The students will gain knowledge on roads and water resources.
5. A basic appreciation of multidisciplinary approach when involved in Civil Related Projects.

Aligned Programme Outcomes (PO)

Programme Outcomes (POs)	Course Outcomes (COs)				
	CO1	CO2	CO3	CO4	CO5
PO1	2	2	2	2	2
PO2	-	-	-	3	-
PO3	-	-	-	-	-
PO4-	-	-	-	-	-
PO5	-	-	-	1	-
PO6	-	2	-	-	2
PO7	1	-	2	-	2
PO8	1	2	2	-	1
PO9	2	2	-	1	-
PO10	-	1	-	-	-
PO11	-	-	-	-	-
PO12	-	-	1	-	1
PSO1	-	1	-	-	-
PSO2	1	-	1	-	1

COURSE PLAN – PART II

COURSE OVERVIEW

This course gives students the knowledge about the fundamentals of Civil Engineering such as properties and uses of construction materials, building construction, construction of roads, surveying methods and equipment, water resources and waste water related concepts

This is a 2 Credit course offered to all branches of engineering except Civil Engineering.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week/Contact Hours	Topic	Mode of Delivery
1	Week 1	Properties and uses of construction materials – Stones- (Quality, Quarrying, Dressing, Uses)	PPT
2	Week 2	Properties and uses of construction materials – Bricks (Manufacture, Quality, Classification, Uses)	PPT
3	Week 3	Properties and uses of construction materials – Cement – (Constituents, Manufacture, Properties, Uses, Types)	PPT
4	Week 4	Properties and uses of construction materials – Concrete – (Advantages, Constituents, Properties, Proportioning, Manufacture and Types, Uses)	PPT

5	Week 5	Properties and uses of construction materials – Steel – (Varieties, Properties and Uses, Commercial forms)	PPT
6	Week 6	Site selection for buildings - Component of building - Foundation- Shallow and deep foundations	PPT
7	Week 7	Brick and stone masonry - Plastering - Lintels, beams and columns - Roofs	PPT
8	Week 8	Roads-Classification of Rural and urban Roads- Pavement Materials	PPT
9	Week 9	Traffic signs and road Marking-Traffic Signals	PPT
10	Week 10	Surveying - Classification-Chain Survey-Ranging-Compass Survey	PPT
11	Week 11	Exhibition of different survey equipment	PPT
12	Week 12	Sources of Water - Dams- Water Supply-Quality of Water-Wastewater Treatment	PPT
13	Week 12	Sea Water Intrusion – Recharge of Ground Water	PPT

COURSE ASSESSMENT METHODS (shall range from 4 to 6)

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Assessment 1	Last week of April 2023	1 hour	20
2	Assessment 2	Last week of May 2023	1 hour	20
3	Assignments/Quizzes	As per deadlines announced in class	Assignments are to be submitted with in 1 week duration	10
CPA	Compensation Assessment*	13th week	1 hour	20
4	Final Assessment *	1st week of July 2023	3 hours	50

***mandatory; refer to guidelines on page 4**

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

1. Feedback from students during Class committee meetings
2. Anonymous feedback through questionnaire at the end of the semester (through the feedback section portal in "MIS")

COURSE POLICY (including compensation assessment to be specified)

1. The closing date of attendance for the subject is Week 12.
2. 100 % attendance is desirable for every student, minimum being 75%.
3. Attendance during each assessment is mandatory.
4. Submission of assignments as per schedule is compulsory.
5. Compensation assessment will be given to only those students who have missed the cycle tests on genuine records and upon prior intimation to the respective faculty. The portion of compensation assessment will include all topics covered till that date.

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

1. The faculty is available for consultation during office hours at room number C204 of Department of Civil Engineering.
2. Queries if any can also be emailed to the faculty or through MS Teams.

FOR APPROVAL

Course Faculty	CC- Chairperson	HOD
Dr Greegar George		