NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI
DEPARTMENT OF CIVIL ENGINEERING

COURSE PLAN – CEIR15 Introduction to Civil Engineering

COURSE OUTLINE TEMPLATE			
Course Title	Branch Specific Course – Introduction to Civil Engineering		
Course Code	CEIR15	**No. of Credits**	2
Department	Civil	**Faculty**	All Faculty members of Civil Engineering Department
Pre-requisites Course Code	NIL		
Course Coordinator	Dr. S. Moses Santhakumar		
Other Course Teacher(s)/Tutor(s) E-mail	moses@nitt.edu	**Telephone No.**	9842450011 (M) 3155 (O)
Course Type	☑ **Core course**	☐ **Elective course**	

COURSE OVERVIEW

The course will be handled by all the faculty members of the Civil Engineering Department who will share their knowledge in their specialised fields to the students.

COURSE OBJECTIVES

To give an overall exposure of the field of Civil Engineering and the role of Civil Engineers to the Civil Engineering students.

COURSE OUTCOMES (CO)

Course Outcomes At the end of the course, the students will have a broad understanding of the State of the Art in various disciplines of Civil Engineering. The student would achieve an understanding of the following	**Aligned Programme Outcomes (PO)**
1. Knowledge of various disciplines in Civil Engineering	**i, k, l**
2. Conventional and advanced forms of Engineering	**e, l**
3. Theoretical and Practical aspects of Civil Engineering	**f, g**
4. Emerging trends / integration of the various fields of Civil Engineering	**i, k, l**
5. Importance of impact and ethics of Civil Engineering in societal and economic development	**j, h**

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	**Topic**	**Faculty Member to handle**	**Week / Hour**	**Mode of Delivery**
1.	Introduction to Civil Engineering, Outstanding achievements, Emerging Trends in Civil Engineering, Ethics in Civil Engg. Practices	Dr. S. Moses Santhakumar	Week 1 (1 Hour)	PPT
2.	Construction Materials – Stone	Dr. Jayachandran K.	Week 1 (1 Hour)	PPT

3.	Construction Materials – Brick	Mrs. Arachelvi	Week 2 (1 Hour)	PPT
4.	Construction Materials – Cement	Dr. J. Karthikeyan	Week 2 (1 Hour)	PPT
5.	Concrete Technology – Introduction, Properties	Dr. J. Karthikeyan	Week 3 (1 Hour)	Black Board
6.	Emerging trends in Geotechnical Engineering	Dr. Deendayal	Week 3 (1 Hour)	PPT
7.	Steel – Introduction, Properties	Dr. P. Jayabalan	Week 4 (1 Hour)	PPT
8.	Emerging Trends - Steel Structures	Dr. K. Baskar	Week 4,5 (2 Hours)	PPT
9.	Building Construction/Planning – Site Selection, Components of Building	Dr. S. Jayalekshmi	Week 5 (1 Hour)	PPT
10.	Foundation Engineering – Introduction, concepts, Emerging trends	Dr. K. Muthukkumaran	Week 6 (2 Hours)	PPT
11.	Emerging trends in Concrete Technology	Dr. C. Natarajan	Week 9 (1 Hour)	PPT
12.	Surveying/Advanced Surveying	Dr. Nisha Radhakrishnan	Week 10 (2 Hours)	PPT
13.	Transportation Engineering – Road system, Emerging Trends	Dr. Samson Mathew	Week 12 (2 Hours)	PPT
14.	Environmental Engineering – Introduction, Emerging Trends	Dr. R. Gandhimathi	Week 14 (2 Hours)	PPT
15.	Water Resources Engineering - Introduction, Emerging Trends	Dr. R. Manjula	Week 15 (2 Hours)	PPT
16.	Construction Management	Mr. Prasanna Venkatesan	Week 16 (2 Hours)	PPT

COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1.	Quiz 1- Objective type	Week 7	1 hour	25%
2.	Quiz 2- Objective type	Week 13	1 hour	25%
3.	Quiz 3 - Objective type	Week 17	30 mins	10%
4.	Final Exam - Descriptive	Week 19	2 hours	40%
			Total	100 %

ESSENTIAL READINGS : Textbooks, reference books Website addresses, journals, etc

1. Building Construction by Sushil Kumar
2. Building Materials by S.C. Rangwala
3. Surveying by Punmia, B.C.
4. Soil Mechanics and Foundation Engineering by Punmia, B.C.
5. Elements of Environmental Engineering by Duggal, K.N.
6. Highway Engineering by Khanna, S.K and Justo, C.E.G
7. Railway Engineering by M.M. Agarwal
8. Principles of Fluid Mechanics by Natarajan, M.K.

COURSE EXIT SURVEY (mention the ways in which the feedback about the course is assessed and indicate the attainment also)

It is proposed to take feedback from the students, at the end of the semester to evaluate the execution of the course. It is also proposed to evaluate their interest in the subject through a questionnaire regarding the knowledge they have attained in different specializations of civil Engineering.

COURSE POLICY (including plagiarism, academic honesty, attendance, etc.)

Attendance

- The Closing date of attendance for the subject is Week 17.
- 100% attendance is desirable for every student, with minimum attendance being 75%.
- Attendance during each assessment is mandatory.

Marks

- Eligibility criteria for passing:
  - Minimum of 10 marks to be scored of Quiz 1+ Quiz 2+ Quiz 3
  - Passing minimum of Quiz 1+ Quiz 2+ Quiz 3+ Final Exam is 40%.

ADDITIONAL COURSE INFORMATION

- The Course Coordinator is available for consultation during office hours.
- Queries, if any, can also be emailed to the Course Coordinator directly at moses@nitt.edu

FOR SENATE'S CONSIDERATION

Course Faculty _____ **CC-Chairperson** _____ **HOD** _____