



DEPARTMENT OF CIVIL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY
 TIRUCHIRAPPALLI - 620 015, TAMIL NADU, INDIA

COURSE OUTLINE			
Name of the Programme and Specialization	First Year B.Tech / Computer Science Engineering		
Course Title	Basics of Civil Engineering		
Course Code	CEIR 11	No. of Credits	2
Department	All Branches except Civil Engineering	Faculty	S.Krishna Prashanth
Session	July 2018	Section	A
Course Coordinator(s) (if, applicable)	---		
E-mail	[prashanth@nitt.edu / skpcivilnitt@gmail.com]	Telephone No.	9994439270
Course Type	<input checked="" type="checkbox"/> GIR course <input type="checkbox"/> Core course <input type="checkbox"/> Elective course		

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

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**
- To give an overview of the fundamentals of the Civil Engineering fields to the students of all branches of Engineering.
 - To realize the importance of the Civil Engineering Profession in fulfilling societal needs

COURSE OUTCOMES (CO)

	Aligned Programme Outcomes (PO)										
	1	2	3	4	5	6	7	8	9	10	11
1. The students will gain knowledge on site selection.	CO1	H	M	L	L	L	L	M	L	L	M
2. The students will gain knowledge on construction materials.	CO2	H	L	L	L	L	L	M	M	M	L
3. The students will gain knowledge on	CO3	H	M	L	L	M	L	M	L	L	L
	CO4	M	L	L	L	L	L	M	L	L	L
	CO5	M	M	L	L	L	L	M	H	M	H

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.	1. Scholarship of Knowledge	2. Critical Thinking
	3. Problem Solving	4. Research Skill
	5. Usage of modern tools	6. Collaborative and Multidisciplinary work
	7. Project Management and Finance	8. Communication
	9. Life-long Learning	10. Ethical Practices and Social Responsibility
	11. Independent and Reflective Learning	

COURSE TEACHING AND LEARNING ACTIVITIES

S. No.	Week	Topic	Mode of Delivery
1.	2 nd week of Aug 18 (6 to 10) (2 Contact Hours)	Properties and uses of construction materials – stones- (Quality, Quarrying, Dressing, Uses),	PPT & BB
2.	3 rd week of Aug 18 (13 to 17) (2 Contact Hours)	Properties and uses of construction materials – bricks (Manufacture, Quality, Classification, Uses),	PPT & BB
3.	4 th week of Aug 18 (20 to 24) (2 Contact Hours)	Properties and uses of construction materials – cement – (Constituents, Manufacture, Properties, Uses, Types), and	PPT & BB
4.	5 th week of Aug 18 (27 to 31) (2 Contact Hours)	Properties and uses of construction materials – concrete – (Advantages, Constituents, Properties, Proportioning, Manufacture and Types, Uses)	PPT & BB
5.	1 st week of Sep 18 (3 to 7) (2 Contact Hours)	Properties and uses of construction materials – cement – steel – (Varieties, Properties and Uses, Commercial forms)	PPT & BB
6.	2 nd week of Sep 18 (10 to 14) (2 Contact Hours)	Site selection for buildings – (Classification and Planning of buildings), Components of building	PPT & BB
7.	3 rd week of Sep 18 (17 to 21) (2 Contact Hours)	Foundation- Shallow and deep foundations – (Function, Loads, Bearing Capacity of Soil, Types, Causes of failure of foundation)	PPT & BB
8.	4 th week of Sep 18 (24 to 28) (2 Contact Hours)	Brick and stone masonry – (Definitions, Bonds, Comparison, Points to be observed in construction, Plastering Lintels, beams and columns – Roofs – (Requirement, Classification, Types, roof coverings)	PPT & BB
9.	1 st week of Oct 18 (1 to 5) (2 Contact Hours)	Roads-Classification of Rural and urban Roads, Pavement Materials	PPT & BB
10.	2 nd week of Oct 18 (8 to 12) (2 Contact Hours)	Traffic signs and road marking-Traffic Signals.	PPT & BB

11.	3 rd week of Oct 18 (15 to 19) (2 Contact Hours)	Surveying - Classification- Chain Survey - (Instruments used, Principle, Terms used), Operations(Ranging)	PPT & BB
12.	4 rd week of Oct 18 (22 to 26) (2 Contact Hours)	- Compass Survey (Methods of using, Bearing, Local attraction)	PPT & BB
13.	5 rd week of Oct 18 and 1 st week of Nov 18 (29 - 31 and 1, 2) (2 Contact Hours)	exhibition of different survey equipment	Field observation
14.	2 nd week of Nov 18 (5 to 9) (2 Contact Hours)	Sources of Water - Dams (Purpose of dam, factors governing selection of dam site, Cross section details of gravity dam)	PPT & BB
15.	3 rd week of Nov 18 (12 to 16) (2 Contact Hours)	Water Supply- Quality of Water, Wastewater Treatment	PPT & BB
16.	4 rd week of Nov 18 (19 to 23) (2 Contact Hours)	Sea Water Intrusion Recharge of Ground Water	PPT & BB
17.	5 rd week of Nov 18 and (26 - 30) (2 Contact Hours)	Review of concepts related to Civil Engineering	PPT & BB
18.	1 st week of Dec 18	Final Assessment	
19.	1 st week of Dec 18 (1 st) closure	Teaching, learning and assessment as per respective course plan ends closure of all class work and the session assessments	

COURSE ASSESSMENT METHODS

S. No.	Mode of Assessment	Week/Date	Duration	% Weightage
1.	Assessment - I	7 th Week	60 minutes	20%
2.	Assessment - II	15 th Week	60 minutes	20%
3.	Compensation Assessment*	17 th Week	60 minutes	20%
4.	Assessment - III	---	Before the Assessments I & II	15%
5.	Final Assessment	19 th week	120 minutes	40%
6.	Attendance		Till the end of semester	5%

- Attending all the assessments is mandatory for every student.
- Marks will be awarded for attendance based on the following scheme:
5 Marks for (95-100%) attendance, 4 Marks for (85-94%), 3 Mark for (75-84%), 0 for (<75%)

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

1. Punmia, B.C, Ashok Kumar Jain, Arun Kumar Jain, 'Basic Civil Engineering', Lakshmi Publishers, 2012.
2. Satheesh Gopi, 'Basic Civil Engineering', Pearson Publishers, 2009.
3. Rangwala, S.C, 'Building materials', Charotar Publishing House, Pvt. Limited, Edition 27, 2009.
4. Palanichamy, M.S, 'Basic Civil Engineering', Tata Mc Graw Hill, 2000.
5. Lecture notes prepared by Department of Civil Engineering, NITT.

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

- Direct feedback from the students by face-to-face meeting individually and the class as a whole.
- Feedback from the students during class committee meetings.
- Exit survey from the students at the end of the session through questionnaire.

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

The student will not be allowed further to write the exam if he is found to commit any malpractice and proper disciplinary action will be taken.

MODE OF CORRESPONDENCE (email/ phone etc)

All the students are advised to check their NIT-T webmail regularly to know the updates. All the correspondence (schedule of classes / schedule of assessment / course material / any other information regarding this course) will be communicated through webmail prashanth@nitt.edu / 9994439270

ATTENDANCE POLICY

1. Every student is expected to have a minimum of 75 % attendance to pass this course.
2. A maximum of 10 % shall be allowed under on duty (OD) category.
3. Students with less than 65% attendance shall be prevented from appearing the final assessment and shall be awarded 'V' Grade.

***COMPENSATION ASSESSMENT**

If any student is not able to attend Assessment-1 / Assessment-2 due to genuine reason, student is permitted to attend the compensation assessment (CPA) with 20% weightage.

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 a punishable dishonesty.

No mark will be awarded for the offenders. For copying from other student, both students get the same penalty.

The departmental disciplinary committee including the course faculty member, PAC Chairperson and the HoD, as members shall verify the facts of malpractice and award the punishment if the student is found guilty. The report shall be submitted to the Academic office.

ADDITIONAL COURSE INFORMATION

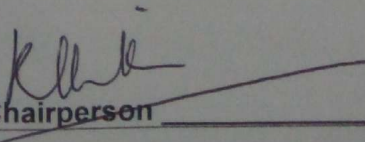
Students are instructed to go through B.Tech regulations in the institute website for passing minimum, redo, formative assessment, grades, credits etc.,

FOR APPROVAL

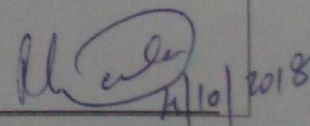
Course Faculty



CC-Chairperson



HOD



11/10/2018