# **UNIVERSITY OF MUMBAI**



Revised syllabus (Rev- 2016) from Academic Year 2016 -17
Under

# **FACULTY OF TECHNOLOGY**

## **Civil Engineering**

Second Year with Effect from A.Y. 2017-18

Third Year with Effect from A.Y. 2018-19

Final Year with Effect from A.Y. 2019-20

As per Choice Based Credit and Grading System

with effect from the A.Y. 2016-17

### **University of Mumbai**

#### **Scheme of Instructions and Examination**

### Fourth Year Engineering (Civil Engineering)

(With effect from 2019-2020)

(Semester -VII)

Subject	Subject Name		ing Sche tact Hou	Credits Assigned				
Code		Theory	Practs.	Tut.	Theory	Pract.	Tut.	Total
CE-C701	Quantity Survey Estimation and Valuation	4	2	1	4	1	-	5
CE-C702	Theory of Reinforced Concrete Structures	4	2	1	4	1		5
CE-C703	Water Resource Engineering -II	3	2		3	1	-	4
CE- DLO704X	Department Level Optional Course-III	3	2		3	1		4
ILO701X	Institute Level Optional Course-I	3			3			3
CE-C705	Project – Part I		6			3		3
	Total			-	17	7		24

		<b>Examination Scheme</b>									
			ory								
Subject	Subject Name				End	Exam. Duration		_	Oral	Total	
Code					ł						
		Test1	Test 2	Avg	Exam.	(InHrs.)	Work				
	<b>Quantity Survey Estimation</b>										
CE-C701	and Valuation	20	20	20	80	4	25		25	150	
CE-C702	Theory of Reinforced										
	Concrete Structures	20	20	20	80	3	25		25	150	
CE-C703	Water Resource										
CE-C/03	Engineering-II	20	20	20	80	3	25		25	150	
CE-	Department Level Optional										
DLO704X	Course-III	20	20	20	80	3	25		25	150	
ILO701X	Institute Level Optional										
	Course I	20	20	20	80	3			-	100	
CE-P705	Project – Part I						50		25 <sup>@</sup>	75	
Total		100	100	100	400		150		125	775	

<sup>@</sup> For Project Part-I (CE-P 706), the oral examination shall be based on the presentation/ seminar before the board of internal examiners to be appointed by the Head of the concerned Department.

#### **University of Mumbai**

#### **Scheme of Instructions and Examination**

#### Fourth Year Engineering (Civil Engineering)

(With effect from 2019-2020)

(Semester-VIII)

Subject	Subject Name	Teaching Scheme (Contact Hours)			Credits Assigned					
Code		Theory	Practs	Tut.	Theory	Practs	Tut	Total		
CE-C801	Design and Drawing of Reinforced Concrete Structures	4	-	2	4		1	5		
CE-C802	Construction Management	4		2	4		1	5		
CE- DLO803X	Department Level Optional Course- IV	4	2		4	1		5		
ILO802X	Institute Level Optional Course- II	3		1	3		1	4		
CE-C804	Project – Part II		12			6		6		
Total		15	14	5	15	7	3	25		

		Examination Scheme								
		Theory								
Subject Code	Subject Name	Internal Assessment			End Exam. Duration		Term Work	Pract	Oral	Total
Code		Test1	Test 2	Avg	Exam	(In Hrs.)	VVOIR	Truct	Oran	Total
CE-C801	Design and Drawing of Reinforced Concrete Structures	20	20	20	80	4	25		25	150
CE-C802	Construction Management	20	20	20	80	3	25		25	150
CE- DLO803X	Department Level Optional Course-IV	20	20	20	80	3	25		25	150
ILO802X	Institute Level Optional Course II	20	20	20	80	3	25			100
CE-P 804	Project – Part II						50		50#	100
	Total	80	80	80	320		150		125	650

<sup>#</sup> The oral examination for the Project- Part II (CE-P 806) shall be based on the presentation/ seminar to be delivered by the projectee/s before the board of examiners. The board of internal examiners will comprise of the internal examiners and the external examiners to be approved by the University from the pool of eligible examiners.

Guidelines for Project, i.e., Dissertation (Part-I and II)

- (i) Students can form groups with minimum of 2 (Two) students and not more than 4 (Four) students.
- (ii) Faculty load: In Semester VII: 01 (One) clock hour per week per project group and in Semester VIII: 02 (Two) clock hours per week per project group.
- (iii) Each faculty member shall be permitted to guide maximum 04 (Four) project groups.

Department Level Optional Course – III	Department Level Optional Course – IV
(Semester – VII)	(Semester – VIII)
CE-DLO7041: Pre-stressed Concrete	CE-DLO8031: Advanced Design of Steel Structures
CE-DLO7042: Solid Waste management	CE-DLO8032: Industrial Waste Treatment
CE-DLO7043: Pavement Sub-grade and	CE-DLO8033: Pavement Design and Construction
Materials	CE-DLO8034: Bridge Engineering and Design
CE-DLO7044: Structural Dynamics	CE-DLO8035: Appraisal and Implementation of
CE-DLO7045: Application of GIS and Remote	Infrastructure Projects
Sensing	CE-DLO8036: Soil Dynamics
CE-DLO7046: Foundation Analysis and Design	CE-DLO8037: Design of Hydraulic Structures
CE-DLO7047: Applied Hydrology and Flood	
Control	

Institute Level Optional Course – I	Institute Level Optional Course – II
(Semester –VII)	(Semester – VIII)
ILO7011: Product Lifecycle Management	ILO8021: Project Management
ILO7012: Reliability Engineering	ILO8022: Finance Management
ILO7013: Management Information Systems	ILO8023: Entrepreneurship Development and
ILO7014: Design of Experiments	Management
ILO7015: Operations Research	ILO8024: Human Resources Management
ILO7016: Cyber Security and Laws	ILO8025: Professional Ethics and Corporate Social
W 05017 D: W 1100	Responsibility (CSR)
ILO7017: Disaster Management and Mitigation Measures	ILO8026: Research Methodology
ILO7018: Energy Audit and Management	ILO8027: Intellectual Property Rights and Patenting
ILO7019: Development Engineering	ILO8028: Digital Business Management
	ILO8029: Environment Management