

**SEMESTER VII/VIII\***

S. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>THEORY</b>								
1.	CE3701	Estimation, Costing and Valuation Engineering	PCC	3	0	0	3	3
2.	AI3404	Hydrology and Water Resources Engineering	PCC	3	0	0	3	3
3.	GE3791	Human Values and Ethics	HSMC	2	0	0	2	2
4.	GE3752	Total Quality Management	HSMC	3	0	0	3	3
5.		Open Elective – II**	OEC	3	0	0	3	3
6.		Open Elective – III***	OEC	3	0	0	3	3
7.		Open Elective – IV***	OEC	3	0	0	3	3
<b>TOTAL</b>				<b>19</b>	<b>0</b>	<b>2</b>	<b>21</b>	<b>20</b>

\*If students undergo internship in Semester VII, then the courses offered during semester VII will be offered during semester VIII

\*\*Open Elective – II shall be chosen from the emerging technologies

\*\*\*Open Elective III and IV (Shall be chosen from the list of open electives offered by other Programmes)

**SEMESTER VIII/VII\***

S. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
<b>PRACTICALS</b>								
1.	CE3811	Project Work/Internship	EEC	0	0	20	20	10
<b>TOTAL</b>				<b>0</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>10</b>

\*If students undergo internship in Semester VII, then the courses offered during semester VII will be offered during semester VIII

**TOTAL CREDITS: 166**

PROGRESS THROUGH KNOWLEDGE

**MANDATORY COURSES I**

S. NO.	COURSE CODE	COURSE TITLE	CATE GORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1.	MX3081	Introduction to Women and Gender Studies	MC	3	0	0	3	0
2.	MX3082	Elements of Literature	MC	3	0	0	3	0
3.	MX3083	Film Appreciation	MC	3	0	0	3	0
4.	MX3084	Disaster Risk Reduction and Management	MC	3	0	0	3	0

**UNIT V QUALITY MANAGEMENT SYSTEM****9**

Introduction-Benefits of ISO Registration-ISO 9000 Series of Standards-Sector-Specific Standards - AS 9100, TS16949 and TL 9000-- ISO 9001 Requirements-Implementation-Documentation-Internal Audits-Registration-ENVIRONMENTAL MANAGEMENT SYSTEM: Introduction—ISO 14000 Series Standards—Concepts of ISO 14001—Requirements of ISO 14001-Benefits of EMS.

**TOTAL: 45 PERIODS****COURSE OUTCOMES:****CO1:** Ability to apply TQM concepts in a selected enterprise.**CO2:** Ability to apply TQM principles in a selected enterprise.**CO3:** Ability to understand Six Sigma and apply Traditional tools, New tools, Benchmarking and FMEA.**CO4:** Ability to understand Taguchi's Quality Loss Function, Performance Measures and apply QFD, TPM, COQ and BPR.**CO5:** Ability to apply QMS and EMS in any organization.**TEXT BOOK:**

1. Dale H.Besterfield, Carol B.Michna,Glen H. Besterfield,Mary B.Sacre,Hemant Urdhwareshe and RashmiUrdhwareshe, "Total Quality Management", Pearson Education Asia, Revised Third Edition, Indian Reprint, Sixth Impression,2013.

**REFERENCES:**

1. Joel.E. Ross, "Total Quality Management – Text and Cases", Routledge., 2017.
2. Kiran.D.R, "Total Quality Management: Key concepts and case studies, Butterworth – Heinemann Ltd, 2016.
3. Oakland, J.S. "TQM – Text with Cases", Butterworth – Heinemann Ltd., Oxford, Third Edition,2003.
4. Suganthi,L and Anand Samuel, "Total Quality Management", Prentice Hall (India) Pvt. Ltd.,2006 .

**CO's- PO's & PSO's MAPPING**

CO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1		3										3	2		3
2						3						3		2	
3					3				3					2	3
4		2			3	2	3	2				3	3	2	
5			3			3	3	2							
<b>AVg.</b>		2.5	3		3	2.6	3	2	3			3	2.5	2	3

**CE3811****PROJECT WORK/INTERNSHIP****L T P C  
0 0 20 10****COURSE OBJECTIVE:**

- To develop the ability to solve a specific problem right from its identification and literature review till the successful solution of the same. To train the students in preparing project reports and to face reviews and viva voce examination.

**STRATEGY:**

The student works on a topic approved by the head of the department under the guidance of a faculty member and prepares a comprehensive project report after completing the work to the satisfaction. The student will be evaluated based on the report and the viva voce examination by a team of examiners including one external examiner.

**TOTAL: 300 PERIODS**

### COURSE OUTCOMES:

- On Completion of the project works students will be in a position to take up any challenging practical problems and find solution by formulating proper methodology.

**CO1** Identify civil engineering problems reviewing available literature.

**CO2** Identify appropriate techniques to analyze complex civil engineering problems.

**CO3** Apply engineering and management principles through efficient handling of Project have a clear idea of his/her area of work and they are in a position to carry out the work in a systematic way.

### COs- PO's & PSO's MAPPING

PO/PSO		Course Outcome			Overall Correlation of Cos to POs
		CO1	CO2	CO3	
PO1	Knowledge of Engineering Sciences	3	3	2	3
PO2	Problem analysis	1	3	2	2
PO3	Design/development of solutions	1	1	2	1
PO4	Investigation	3	3		3
PO5	Modern Tool Usage				
PO6	Individual and Teamwork	3	3	2	3
PO7	Communication	2		2	2
PO8	Engineer and Society	2		2	2
PO9	Ethics	2		2	2
PO10	Environment and Sustainability	1	1	1	1
PO11	Project Management and Finance	1	1	1	1
PO12	Life Long Learning	3	3	3	3
PSO1	Knowledge of Civil Engineering discipline	3	3	1	3
PSO2	Critical analysis of Civil Engineering problems and innovation	3	3	1	3
PSO3	Conceptualization and evaluation of engineering solutions to Civil Engineering Issues	3	3	1	3

### PROFESSIONAL ELECTIVE COURSES: VERTICALS

#### VERTICAL I: STRUCTURES

**CE3001**

**CONCRETE STRUCTURES**

**L T P C**

**3 0 0 3**

#### **COURSE OBJECTIVE:**

- To acquire hands on experience in design and preparation of structural drawings for concrete / steel structures normally encountered in Civil Engineering practice using Computer Software Staad Pro, E-Tabs and any Structural design and analysis Software.

#### **UNIT I INTRODUCTION AND CODES**

**9**

Geometric Parameters, Grade of concrete and steel for different elements, Exposure and cover requirements, Fire rating, Load Combinations, Serviceability Requirements, Analysis tools. Indian & International Codes for Reinforced concrete Design, Design loads, National Building Code 2016, Practical building example, drawing sizes and scale.