

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
CHOICE BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION 2016-2017

M.Tech. COMPUTER AIDED DESIGN OF STRUCTURES

I SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/Field Work/ Assignment	Duration	I.A. Marks	Theory/ Practical Marks	Total Marks	
1	16CCS11	STRUCTURAL OPTIMIZATION - Concepts & Applications	4	-	3	20	80	100	4
2	16CCS12	COMPUTATIONAL STRUCTURAL MECHANICS - Classical and FE Approach	4	-	3	20	80	100	4
3	16CCS13	STRUCTURAL DYNAMICS - Theory & Computations	4	-	3	20	80	100	4
4	16CCS14	CONTINUUM MECHANICS - Classical and FE Approach	4	-	3	20	80	100	4
5	16CCS15X	ELECTIVE-1	3	-	3	20	80	100	3
6	16CCSL16	CAD LAB - Structural Analysis		3	3	20	80	100	2
7	16CCS17	SEMINAR	-	3	-	100	-	100	1
TOTAL			19	6	18	220	480	700	22

ELECTIVE	
16CCS151	DESIGN OF STACK , TOWER AND WATER STORAGE STRUCTURAL SYSTEMS
16 CCS 152	COMPOSITE AND SMART MATERIALS
16 CCS 153	ACTION AND RESPONSE OF STRUCTURAL SYSTEMS
16 CCS 154	GEOTECHNICAL ASPECTS OF FOUNDATIONS AND EARTH RETAINING STRUCTURES

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Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/Field Work/Assignment	Duration	I.A. Marks	Theory/Practical Marks	Total Marks	
1	16CCS21	ANALYSIS OF PLATES - Classical and FE Approach	4	-	3	20	80	100	4
2	16CCS22	SEISMIC RESISTANT DESIGN OF STRUCTURAL SYSTEMS	4	-	3	20	80	100	4
3	16 CCS 23	STRUCTURAL STABILITY ANALYSIS - Classical and FE approach	4	-	3	20	80	100	4
4	16 CCS 24	ADVANCED DESIGN OF REINFORCED CONCRETE STRUCTURAL ELEMENTS	4	-	3	20	80	100	4
5	16 CCS 25X	ELECTIVE-2	3	-	3	20	80	100	3
6	16 CCS L26	CAD LAB - FE ANALYSIS		3	3	20	80	100	2
7	16XX27	SEMINAR	-	3	-	100	-	100	1
TOTAL			19	6	18	220	480	700	22

ELECTIVE -2	
16CCS 251	RELIABILITY ANALYSIS AND DESIGN OF STRUCTURAL ELEMENTS
16 CCS 252	AI AND EXPERT SYSTEMS IN STRUCTURAL ENGINEERING
16 CCS 253	ADVANCED DESIGN OF STEEL STRUCTURES
16 CCS 254	DESIGN OF STRUCTURAL SYSTEMS IN BRIDGES

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III SEMESTER: INTERNSHIP

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/Field Work/Assignment	Duration	I.A. Marks	Theory/Practical Marks	Total Marks	
1	16CCS31	Seminar / Presentation on Internship (After 8 weeks from the date of commencement)	-	-	-	25	-	25	20
2	16CCS32	Report on Internship	-	-	-	25	-	25	
3	16CCS33	Evaluation and Viva-Voce of Internship	-	-	-	-	50	50	
4	16CCS34	Evaluation of Project phase -1	-	-	-	50	-	50	1
TOTAL			-	-	-	100	50	150	21

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IV SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week		Examination				Credit
			Theory	Practical/Field Work/Assignment	Duration	I.A. Marks	Theory/Practical Marks	Total Marks	
1	16CCS41	ANALYSIS AND DESIGN OF SHELL ROOF STRUCTURES – Classical And FE Approach	4	-	3	20	80	100	4
2	16CCS42	ELECTIVE-3	3	-	3	20	80	100	3
3	16CCS43	Evaluation of Project phase -2	-	-	-	50	-	50	3
4	16CCS44	Evaluation of Project and Viva-Voce	-	-	-	-	100+100	200	10
TOTAL			-	-	6	90	360	450	20

ELECTIVE 3	
16CCS421	DESIGN OF PRECAST & COMPOSITE STRUCTURES
16CCS422	ADVANCED MECHANICS OF MATERIALS
16CCS423	ADVANCED DESIGN OF PRE-STRESSED CONCRETE STRUCTURES
16CCS424	DYNAMICS OF SOIL-STRUCTURE INTERACTION

Note:

1. **Project Phase-1:** 6-week duration shall be carried out between 2nd and 3rd Semester vacation. Candidates in consultation with the guide shall carry out literature survey/ visit industries to finalize the topic of Project.
2. **Project Phase-2:** 16-week duration during 4th semester. Evaluation shall be done by the committee constituted comprising of HoD as Chairman, Guide and Senior faculty of the department.
3. **Project Evaluation:** Evaluation shall be taken up at the end of 4th semester. Project work evaluation and Viva-Voce examination shall conducted
4. **Project evaluation:**
 - a. Internal Examiner shall carry out the evaluation for 100 marks.
 - b. External Examiner shall carry out the evaluation for 100 marks.