



Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bhilai (C.G.)

SCHEME OF TEACHING AND EXAMINATION

B.Tech (Third Semester – Civil Engineering)

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Basic Science	Mathematics - III	B000311(014)	3	1	-	100	20	30	150	4
2.	Civil Engg.	Introduction to Fluid Mechanics	B020312(020)	3	1	-	100	20	30	150	4
3.	Civil Engg.	Introduction to Solid Mechanics	B020313(020)	3	1	-	100	20	30	150	4
4.	Civil Engg.	Plane Surveying	B020314(020)	3		-	100	20	30	150	3
5.	Civil Engg.	Building Materials	B020315(020)	2	-	-	100	20	30	150	2
6.	Civil Engg.	Fluid Mechanics Lab	B020321(020)	-	-	2	40	-	20	60	1
7.	Civil Engg.	Surveying Lab	B020322(020)	-	-	2	40	-	20	60	1
8.	Civil Engg.	Building Material Lab	B020323(020)	-	-	2	40	-	20	60	1
9.	Civil Engg.	Software Lab	B020324(020)	-	-	2	40	-	20	60	1
10.	Humanities	Personality Development	B000306(046)	-	-	2	-	-	10	10	-
Total Marks				14	3	10	660	100	240	1000	21

L-Lecture, T-Tutorial, P-Practical, ESE-End Semester Exam, CT- Class Test, TA-Teacher's Assessment



Chhattisgarh Swami Vivekanand Technical University (CSVTU), Bhilai (CG)

SCHEME OF TEACHING AND EXAMINATION

Courses of Study and Scheme of Examination B. Tech. (4th Semester) –Civil Engineering

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Civil Engg.	Structural Analysis-I	B020411(020)	3	1	-	100	20	30	150	4
2.	Civil Engg	Hydraulic Engineering	B020412(020)	3	1	-	100	20	30	150	4
3.	Civil Engg	Surveying and geomatics	B020413(020)	3	1	-	100	20	30	150	4
4.	Civil Engg	Building Construction	B020414(020)	3		-	100	20	30	150	3
5.	Civil Engg	Engineering Geology	B020415(020)	2		-	100	20	30	150	2
6.	Civil Engg	Hydraulics Lab	B020421(020)	-	-	2	40	-	20	60	1
7.	Civil Engg	Surveying and Geomatics Lab	B020422(020)	-	-	2	40	-	20	60	1
8.	Civil Engg	Geology Lab	B020423(020)	-	-	2	40	-	20	60	1
9.	Civil Engg	Virtual Lab	B020424(020)	-	-	2	40	-	20	60	1
10.	Non- credit course	Indian Culture and Constitution of India	B000406(046)	-	-	2	-	-	10	10	-
Total Marks				14	3	10	660	100	240	1000	21
Internship-I to be completed after fourth semester exam and its evaluation to be done in fifth semester											

L-Lecture, T-Tutorial, P-Practical, ESE-End Semester Exam, CT- Class Test, TA-Teacher's Assessment



Chhattisgarh Swami Vivekanand Technical University (CSVTU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Fifth Semester - CIVIL ENGINEERING)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Civil Engg.	Structural Engineering Design-I	C020511(020)	3	1	-	100	20	30	150	4
2.	Civil Engg.	Hydrology & Water Resources Engineering	C020512(020)	3	1	-	100	20	30	150	4
3.	Civil Engg.	Geotechnical Engineering	C020513(020)	3	1	-	100	20	30	150	4
4.	Civil Engg.	Transportation Engineering	C020514(020)	2	1	-	100	20	30	150	3
5.	Professional Elective –I(Refer Table I)			2	0	-	100	20	30	150	2
6.	Civil Engg.	Structural Analysis lab	C020521(020)	-	-	2	40	-	20	60	1
7.	Civil Engg.	Transportation Engineering Lab	C020522(020)	-	-	2	40	-	20	60	1
8.	Civil Engg.	Geotechnical Engineering Lab	C020523(020)	-	-	2	40	-	20	60	1
9.	Civil Engg.	Project-I based on Summer Internship/ Industrial Training	C020524(020)	-	-	2	40	-	20	60	1
10.	Civil Engg.	Environmental Studies	C000506(020)	-	-	2	-	-	10	10	-
Total				13	4	10	660	100	240	1000	21

L – Lecturer

T – Tutorial,

P – Practical,

ESE – End Semester Exam,

CT –ClassTest

TA – Teacher's Assessment

Professional Elective I

S.N.	Board of Studies	Course Code	Subject
1	Civil Engg	C020531(020)	Structural Analysis-II
2	Civil Engg	C020532(020)	Repairs and rehabilitation of structures
3	Civil Engg	C020533(020)	Groundwater Engineering

Note: (1) 1/4th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

(2) Choice of elective course once made for an examination cannot be changed in future examinations.



SCHEME OF TEACHING AND EXAMINATION

B Tech (Sixth Semester – Civil Engineering)

Sl. No.	Board of Studies	Courses (Subject)	Course Code	Period per Week			Theory/Lab			Total Marks	Credits
				L	T	P	ESE	CT	TA		
1.	Civil Engg	Structural Engineering Design-II	C020611(020)	3	1	-	100	20	30	150	4
2.	Civil Engg	Environmental Engineering	C020612(020)	3	1	-	100	20	30	150	4
3.	Civil Engg	Engineering economics, estimating and costing	C020613(020)	3	1	-	100	20	30	150	4
4.	Professional Elective-II (Refer Table I)			2	1	-	100	20	30	150	3
5.	Open Elective – I (Refer Table II)			2	0	-	100	20	30	150	2
6.	Civil Engg	Structural Engineering Lab	C020621(020)	-	-	2	40	-	20	60	1
7.	Civil Engg	Environmental Engineering Lab	C020622(020)	-	-	2	40	-	20	60	1
8.	Civil Engg	Computer Aided Civil Engineering Drawing lab	C020623(020)	-	-	2	40	-	20	60	1
9.	Civil Engg	Concrete Technology Lab	C020624(020)	-	-	2	40	-	20	60	1
10.	Humanities	Technical Communication and Soft Skill	C000601(046)	-	-	2	-	-	10	10	-
Total				13	4	10	660	100	240	1000	21

L – Lecturer
P – Practical,

T – Tutorial, TA – Teacher’s Assessment
ESE – End Semester Exam, CT –ClassTest

Table I (Professional Elective II)

S.N.	Board of Studies	Subject	Course Code
1.	Civil Engg	Structural Analysis by matrix method	C020631(020)
2.	Civil Engg	Concrete technology	C020632(020)
3.	Civil Engg	Traffic engineering and management	C020633(020)

Note: (1) 1/4th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

(2) Choice of elective course once made for an examination cannot be changed in future examinations.



Chhattisgarh Swami Vivekanand Technical University (CSVTVU, NEWAI (C.G.))

B Tech (Sixth Semester)

List of Open Elective – I (Table III) (For 6th Semester)

S.N.	Board of Studies	Subject	Course Code
1	Agriculture Engg.	Food Packaging Technology	C000601(094)
2	Agriculture Engg	Energy Management & Audit	C000602(094)
3	Agriculture Engg	Energy Conservation & Management	C000603(094)
4	Agriculture Engg	Disaster Management	C000604(094)
5	Agriculture Engg	Ecology and Sustainable Development	C000605(094)
6	Agriculture Engg	Non Conventional Energy Sources	C000606(094)
7	Mechanical Engineering	Safety Engineering	C000607(037)
8	Mechanical Engineering	Value Engineering	C000608(037)
9	Mechanical Engineering	Managing Innovation & Entrepreneurship	C000609(037)
10	Mechanical Engineering	Environment Pollution & Control	C000610(037)
11	Management	Enterprise Resource Planning ((Except CSE & IT Branch)	C000611(076)
12	Computer Science Engg.	Artificial Intelligence	C000612(022)
13	Computer Science Engg	Quantum Computing	C000613(022)
14	Computer Science Engg	Cyber Security	C000614(022)
15	Civil Engg	Construction engineering and management	C000615(020)
16	Civil Engg	Metro system and engineering	C000616(020)
17	Civil Engg	Infrastructure Planning and Management	C000617(020)
18	Computer Science Engg	Parallel Processing & Computing	C000618(022)
19	Computer Science Engg	Cryptography & Network Security	C000619(022)
20	Computer Science Engg	Cloud Computing	C000620(022)
21	Computer Science Engg	Computer Networks	C000621(022)
22	Computer Science Engg	Internet of Things	C000622(022)
23	Computer Science Engg	Data Structures and Algorithms	C000623(022)
24	Computer Science Engg	Big Data Analytics	C000624(022)
25	Electrical and Electronics Engg	Electrical Estimation and Costing	C000625(025)
26	Electrical and Electronics Engg	Energy Auditing and Management	C000626(025)
27	Management	Finance Management	C000627(076)
28	Mechanical Engineering	Safety Engineering	C000628(037)
29	Electronics & Telecom.	AI and Machine learning	C000629(028)
30	Electronics & Telecom.	Operating Systems	C000630(028)
31	Electronics & Telecom.	Internet & Web Technology	C000631(028)
32	Electronics & Telecom.	Database Management Systems (DBMS)	C000632(028)
33	Electronics & Telecom.	Device Modelling	C000633(028)
34	Electronics & Telecom.	Introduction to MEMS	C000634(028)
35	Mechanical Engineering	Principles of Management	C000635(037)
36	Mechanical Engineering	Advanced I.C. Engines	C000636(037)

37	Mechanical Engineering	Mechanical Vibrations & Condition Monitoring	C000637(037)
38	Mechatronics	Entrepreneurship Developments	C000638(067)
39	Plastic Engineering	Heat Transfer Operation	C000639(095)
40	Plastic Engineering	Process Economics and Management	C000640(095)
41	Plastic Engineering	Adhesive and Surface Coating	C000641(095)
42	Information Technology	E-Commerce	C000642(033)
43	Information Technology	Industrial Economics and Management	C000643(033)
44	Information Technology	Project Planning & Management	C000644(033)
45	Information Technology	Bio-Informatics	C000645(033)
46	Information Technology	Management Information System	C000646(033)
47	Chemical Engineering	Plant Utility & Safety Engineering	C000647(019)
48	Chemical Engineering	Environment Pollution & Control	C000648(019)

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Chhattisgarh Swami Vivekanand Technical University (CSV TU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Seventh Semester - Civil Engineering)

Sl. No.	(BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credit
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Civil Engg	Structural design-III	D020711(020)	3	1	-	100	20	30	150	4
2.	Civil Engg	Design of hydraulic structures	D020712(020)	2	1	-	100	20	30	150	3
3.	Civil Engg	Foundation Engineering	D020713(020)	2	1	-	100	20	30	150	3
4.	<i>Professional Elective –III (Refer to Table I)</i>			1	1	-	100	20	30	150	2
5.	<i>Open Elective- II (Refer to Table II)</i>			2	0	-	100	20	30	150	2
6.	Civil Engg	Advanced Geotechnical Engineering lab.	D020721(020)	-	-	2	40	-	20	60	1
7.	Civil Engg	Advanced Environmental engineering lab	D020722(020)	-	-	2	40	-	20	60	1
8.	Civil Engg	Project (Phase I)	D020723(020)	-	-	6	60	-	40	100	3
9.	Civil Engg	Industrial Training	D020724(020)			2			20	20	1
10.	Humanities	Universal Human Values 2	D000701(046)	-	-	2	-	-	10	10	-
Total Marks				10	4	14	640	100	260	1000	20

L – Lecturer ,T – Tutorial, P – Practical , CT –Class Test ESE – End Semester Exam TA – Teacher’s Assessment

➤ Note: - The students have to attend the four weeks industrial training / summer internship in B. Tech program after sixth semester, which will be evaluated in seventh semester.

Table I (Professional Elective III)

S.N.	Board of Studies	Course Code	Subject
1.	Civil Engineering	D020731(020)	Seismic design of structures
2.	Civil Engineering	D020732(020)	Pre stressed Concrete
3.	Civil Engineering	D020733(020)	Construction equipment and techniques

Note: (1) 1/4th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

(2) Choice of elective course once made for an examination cannot be changed in future examinations.



Chhattisgarh Swami Vivekanand Technical University (CSV TU, NEWAI (C.G.))

B Tech (Seventh Semester)

List of Open Elective – II (Table III) (For 7th Semester)

S.N.	Board of Studies	Course Code	Subject
1	Agriculture Engg	D000701(094)	Biomass Management For Fodder And Energy.
2	Agriculture Engg	D000702(094)	Gully And Ravine Control Structures
3	Civil Engg	D000703(020)	Design Of Structures.
4	Agriculture Engg	D000704(094)	Reservoir And Farm Pond Design.
5	Mechanical	D000705(037)	3 D Printing & design
6	Management	D000706(076)	Technology Management
7	Information Technology	D000707(033)	Decision Support & Executive Information system
8	CSE	D000708(022)	Software Technology
9	Management	D000709(076)	Knowledge Entrepreneurship
10	Management	D000710(076)	Intellectual Property Rights
11	Biotechnology	D000711(018)	Phytochemistry
12	Biotechnology	D000712(018)	Clinical Research and Trial Management
13	Biotechnology	D000713(018)	Cellular and Molecular Diagnostics
14	Chemical Engineering	D000714(019)	Environmental Legislation & Impact Assessment
15	Civil Engineering	D000715(020)	Environmental management and Legislations
16	Civil Engineering	D000716(020)	Hydraulics of water and waste water
17	Civil Engineering	D000717(020)	Disaster Management
18	CSE	D000718(022)	Neural Network and Deep Learning
19	CSE	D000719(022)	Big data and Hadoop
20	CSE	D000720(022)	BioInformatics
21	CSE	D000721(022)	Software Testing
22	EEE	D000722(025)	Switched Mode Power Converter
23	EEE	D000723(025)	Internet of Things
24	EEE	D000724(025)	Non Conventional Energy Sources
25	EEE	D000725(025)	Sensors and Transducers
26	Information Technology	D000726(033)	E-Commerce & strategic IT
27	Computer Science & Engg.	D000727(022)	Software Technology
28	Electrical Engineering	D000728(024)	Solar PV Energy System
29	Mechanical Engineering	D000729(037)	Energy Conservation & Management
30	Information Technology	D000730(033)	Information Theory & Coding
31	Management	D000731(076)	Project Planning, Management & Evaluation
32	Electronics & Telecom	D000732(028)	Java Programming
33	Electronics & Telecom	D000733(028)	Cloud computing

34	Electronics & Telecom	D000734(028)	Big data Mining
35	Electronics & Telecom	D000735(028)	Cryptography & Network security
36	Electronics & Telecom	D000736(028)	Neural Network & Fuzzy Logic
37	Electronics & Telecom	D000737(028)	RF IC Design
38	Information Technology	D000738(033)	Graph Theory And Applications
39	Information Technology	D000739(033)	Biometrics
40	Information Technology	D000740(033)	Quantum Computing
41	Information Technology	D000741(033)	Entrepreneurship essentials
42	Information Technology	D000742(033)	Managerial Skills
43	Mechanical Engineering	D000743(037)	Mechatronics
44	Mechanical Engineering	D000744(037)	Engineering Economics
45	Mechanical Engineering	D000745(037)	Computer Graphics
46	Mechanical Engineering	D000746(037)	Control Engineering
47	Management	D000747(076)	Finance Management
48	Mechanical Engg.	D000748(037)	Energy Conservation & Management
49	Plastics Engineering	D000749(095)	Renewable Energy
50	Plastics Engineering	D000750(095)	Plastics Waste Management and Recycling



Chhattisgarh Swami Vivekanand Technical University (CSV TU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Eight Semesters - Civil Engineering)

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Mark	Credit
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Civil Engineering	Structural Engineering Design-IV	D020811(020)	3	1	-	100	20	30	150	4
2.	Professional Elective – IV (Refer to Table I)			2	1	-	100	20	30	150	3
3.	Open Elective – III (Refer to Table I)			2	0	-	100	20	30	150	2
6.	Civil Engineering	Structural Engineering Drawing (Lab)	D020821(020)	-	-	2	40	-	20	60	1
7.	Civil Engineering	Computer Application in Civil Engineering (Lab)	D020822(020)	-	-	2	40	-	20	60	1
8.	Civil Engineering	Project (Phase-II)	D020823(020)	-	-	14	350	-	80	430	7
Total Marks				7	2	18	730	60	210	1000	18

L – Lecturer, T – Tutorial, P – Practical, CT – Class Test, ESE – End Semester Exam, TA – Teacher’s Assessment

Table I (Professional Elective – IV)

S.N.	Board of Studies	Course Code	Courses (Subject)
1.	Civil Engineering	D020831(020)	Airport Planning and Design
2.	Civil Engineering	D020832(020)	Open Channel Flow
3.	Civil Engineering	D020833(020)	Construction Management

Note: (1) 1/4 th of total strength of students subject to minimum of 20 students is required to offer and elective in the college in a particular academic session.

(2) Choice of elective course once made for an examination cannot be changed in future Examinations.