



CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY

Courses of Study and Scheme of Examination of B.E. First Year (2012-13)
Common to all branches of Engineering except Bio-Tech. & Bio-Medical Engg.

FIRST SEMESTER

S. No	Board of Study	Subject Code	Subject	Periods Per Week			Scheme of Examination			Total Marks	Credit [L+[T+P]] 2
							Theory				
				L	T	P	ESE	CT	TA		
1	Basic Sciences	300114(14)	Applied Mathematics-I	4	1	-	80	20	20	120	5
2	Humanities	300111(46)	Professional Communication in English	4	-	-	80	20	20	120	4
3	Basic Sciences	300112(11)	Applied Chemistry	4	1	-	80	20	20	120	5
4	Mechanical Engineering	300211(37)	Engineering Graphics	2	1	4	80	20	20	120	5
5	Elect. Engg.	300118(24)	Elements of Electrical Engineering (New)	4	1	-	80	20	20	120	5
6	Basic Sciences	300121(11)	Applied Chemistry (Lab)	-	-	2	40	-	20	60	1
7	Elect. Engg.	300126(24)	Elements of Electrical Engineering (Lab)	-	-	2	40	-	20	60	1
8	Mechanical Engineering	300124(37)	Workshop Practice	-	-	3	40	-	20	60	2
9	Humanities	300127(46)	Library & Seminar	-	-	1	-	-	20	20	1
TOTAL				18	4	12	520	100	180	800	29

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

Note: (i) The teaching in the 1st and 2nd semester will be divided in two groups consisting of various branches as shown below: P1-GROUP: Electronics & Communication, Information Technology, Electronics & Instrumentation, Electrical, Chemical, Electrical & Electronics; Q1-GROUP: Computer Science, Mechanical, Civil, Mining and Applied Electronics & Instrumentation, Metallurgy Mechatronics.

(ii) Applied Mathematics-I will be taught to both the groups in the first semester.

(iii) Library & seminar will be conducted by the relevant discipline/humanities as decided by the Principal.



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SECOND SEMESTER

S. No	Board of Study	Subject Code	Subject	Periods Per Week			Scheme of Examination			Total Marks	Credit [L+[T+P]] 2
							Theory				
				L	T	P	ESE	CT	TA		
1	Basic Sciences	300214(14)	Applied Mathematics-II	4	1	-	80	20	20	120	5
2	Civil Engg.	300212(20)	Environment & Ecology	4	-	-	80	20	20	120	4
3	Basic Sciences	300218(15)	Applied Physics (New)	4	1	-	80	20	20	120	5
4	Civil Engg.	300216(20)	Basic Civil Engineering	4	1	-	80	20	20	120	5
5	Mechanical Engg.	300219(37)	Fundamental of Mechanical Engineering (New)	4	1	-	80	20	20	120	5
6	Basic Sciences	300228(15)	Applied Physics (Lab)	-	-	2	40	-	20	60	1
7	Mechanical Engg.	300229(37)	Mechanical Engineering (Lab)	-	-	2	40	-	20	60	1
8	Humanities	300221(46)	Communication Skills (Lab)	-	-	3	40	-	20	60	2
9	Humanities	300220(46)	Library & Seminar	-	-	1	-	-	20	20	1
TOTAL				20	4	8	520	100	180	800	29

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

Note:

- The teaching in the 1st and 2nd semester will be divided in two groups consisting of various branches as shown below:
 P1-GROUP: Electronics & Communication, Information Technology, Electronics & Instrumentation, Electrical, Chemical, Electrical & Electronics; Q1-GROUP: Computer Science, Mechanical, Civil, Mining and Applied Electronics & Instrumentation, Metallurgy, Mechatronics.
- Applied Mathematics-II will be taught to both the groups in the second semester.
- Library & seminar will be conducted by the relevant discipline/humanities as decided by the Principal.

Chhattisgarh Swami Vivekanand Technical University, Bhilai
SCHEME OF TEACHING & EXAMINATION
BE (Civil Engineering) III Semester

Sl. No.	Board of Study	Subject Code	Subject	Period per week			Scheme of Exam			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1	Appl. Mathematics	320351(14)	Mathematics III	4	1	-	80	20	20	120	5
2	Civil Engg	320352(20)	Fluid Mechanics – I	4	1	-	80	20	20	120	5
3	Civil Engg	320353(20)	Surveying – I	3	1	-	80	20	20	120	4
4	Civil Engg	320354(20)	Mechanics of Solids	3	1	-	80	20	20	120	4
5	Civil Engg	320355(20)	Building Materials	3	1	-	80	20	20	120	4
6	Civil Engg	320356(20)	Engineering Geology	3	1	-	80	20	20	120	4
7	Civil Engg	320361(20)	Fluid Mechanics – I Lab	-	-	3	40		20	60	2
8	Civil Engg	320362(20)	Surveying Field Work- I	-	-	3	40		20	60	2
9	Civil Engg	320363(20)	Materials Testing Lab	-	-	3	40		20	60	2
10	Civil Engg	320364(20)	Engineering Geology Lab	-	-	3	40		20	60	2
11	Humanities	320365(46)	Value Education	-	-	1			40	40	1
12			Library	-	-	1					
			Total	20	6	14	640	120	240	1000	35

L: Lecture, T: Tutorial, P: Practical, ESE: End Semester Exam, CT: Class Test, TA: Teachers Assessment

Note: Duration of all theory papers will be of Three Hours.

Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING & EXAMINATION

BE (Civil Engineering) IV Semester

Sl.No.	Board of Study	Subject Code	Subject	Periods per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+(T+P)/ 2
				L	T	P	ESE	CT	TA		
1	Civil Engg.	320451 (20)	Structural Analysis I	4	1		80	20	20	120	5
2	Civil Engg.	320452 (20)	Fluid Mechanics II	4	1		80	20	20	120	5
3	Civil Engg.	320453 (20)	Surveying II	3	1		80	20	20	120	4
4	Civil Engg.	320454 (20)	Civil Engineering Drawing	1	3		80	20	20	120	4
5	Civil Engg.	320455 (20)	Building Construction	3	1		80	20	20	120	4
6	Civil Engg.	320456 (20)	Transportation Engineering-1	2	1		80	20	20	120	3
7	Civil Engg.	320461 (20)	Fluid Mechanics II Lab			3	40		20	60	2
8	Civil Engg.	320462 (20)	Surveying Field Work II			3	40		20	60	2
9	Civil Engg.	320463 (20)	Civil Engineering Drawing			3	40		20	60	2
10	Civil Engg.	320464 (20)	Transportation Engineering-1-lab			3	40		20	60	2
11	Humanities	320465 (46)	Health, Hygiene & Yoga			2			40	40	1
12			Library			1					
			Total	17	8	15	640	120	240	1000	34

L: Lecture, T: Tutorial, P: Practical, ESE: End Semester Exam, CT: Class Test, TA: Teachers Assessment

Note (1): Duration of all theory papers will be of Three Hours except 'Civil Engineering Drawing' at Sl. No. 4 which will be of Four Hours' duration.

Note (2): Industrial Training of six weeks is mandatory for B.E. student. It is to be completed in two parts. The first part will be in summer after IV Semester after which students have to submit a training report which will be evaluated by the college teachers during B.E. V Semester.

CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY

BHILAI (C.G.)

Scheme of Teaching & Examination

B.E. (V Semester) Civil Engineering

S. No.	Board of Study	Subject Code	Subject	Periods per Week			Scheme of Examination			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1.	Civil Engineering	320551 (20)	Structural Analysis – II	4	1	-	80	20	20	120	5
2.	Civil Engineering	320552 (20)	Structural Engineering Design – I	4	1	-	80	20	20	120	5
3.	Civil Engineering	320553 (20)	Geotech Engineering - I	3	1	-	80	20	20	120	4
4.	Civil Engineering	320554 (20)	Transportation Engineering – II	3	1	-	80	20	20	120	4
5.	Civil Engineering	320555 (20)	Numerical Methods and Computer Programming	3	1	-	80	20	20	120	4
6.	Civil Engineering	320556 (20)	Engineering Hydrology	2	1	-	80	20	20	120	3
7.	Civil Engineering	320561 (20)	Structural Analysis Lab	-	-	3	40	-	20	60	2
8.	Civil Engineering	320562 (20)	Geotech Engineering – I Lab	-	-	3	40	-	20	60	2
9.	Civil Engineering	320563 (20)	Transportation Engineering – II Lab	-	-	3	40	-	20	60	2
10.	Civil Engineering	320564 (20)	Numerical Methods and Computer Programming Lab	-	-	3	40	-	20	60	2
11.	Humanities	300565 (46)	Personality Development	-	-	2	-	-	20	20	1
12.	Civil Engineering	320566 (20)	*Practical Training Evaluation and Library	-	-	1	-	-	20	20	1
Total				19	6	15	640	120	240	1000	35

L: Lecture

T: Tutorial

P: Practical

ESE: End Semester Examination

CT: Class Test

TA: Teacher's Assessment

** Industrial Training of eight weeks is mandatory for B.E. student. It is to be completed in two parts. The first part will be in summer after IV sem. after which students have to submit a training report which will be evaluated by the college teachers during B.E. V sem.*

CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY

BHILAI (C.G.)

Scheme of Teaching & Examination

B.E. (VI Semester) Civil Engineering

S. No.	Board of Study	Subject Code	Subject	Periods per Week			Scheme of Examination			Total Marks	Credit L+(T+P)/2
				L	T	P	ESE	CT	TA		
1.	Civil Engineering	320651 (20)	Structural Engineering Design-II	4	1	-	80	20	20	120	5
2.	Civil Engineering	320652 (20)	Geotech Engineering-II	4	1	-	80	20	20	120	5
3.	Civil Engineering	320653 (20)	Environmental Engineering-I	3	1	-	80	20	20	120	4
4.	Civil Engineering	320654 (20)	Concrete Technology	3	1	-	80	20	20	120	4
5.	Civil Engineering	320655 (20)	Construction Planning	2	1	-	80	20	20	120	3
6.	<i>Refer Table-1</i>	<i>Professional Elective-I</i>		3	1	-	80	20	20	120	4
7.	Civil Engineering	320661 (20)	Structural Engineering Lab	-	-	3	40	-	20	60	2
8.	Civil Engineering	320662 (20)	Geotech Engineering-II Lab	-	-	3	40	-	20	60	2
9.	Civil Engineering	320663 (20)	Environmental Engineering-I Lab	-	-	3	40	-	20	60	2
10.	Civil Engineering	320664 (20)	Concrete Technology Lab	-	-	3	40	-	20	60	2
11.	Management	300665 (76)	Managerial Skills	-	-	2	-	-	40	40	1
12.			Library	-	-	1	-	-	-	-	-
Total				19	6	15	640	120	240	1000	34

Table – 1: Professional Elective - I

S. No.	Board of Study	Subject Code	Subject
1.	Civil Engineering	320671 (20)	Modern Construction Materials
2.	Civil Engineering	320672 (20)	Composite Materials
3.	Civil Engineering	320673 (20)	Advanced Strength of Materials
4.	Civil Engineering	320674 (20)	Modern Surveying Techniques
5.	Civil Engineering	320675 (20)	Remote Sensing and its Applications
6.	Civil Engineering	320676 (20)	GIS and its Applications
7.	Civil Engineering	320677 (20)	Computational Hydraulics
8.	Civil Engineering	320678 (20)	Instrumentation in Fluid Mechanics
9.	Civil Engineering	320679 (20)	Water Power Engineering
10.	Civil Engineering	320680 (20)	Earthquake Engineering

L: Lecture

T: Tutorial

P: Practical

ESE: End Semester Examination

CT: Class Test

TA: Teachers' Assessment

Note: Industrial Training of twelve weeks is mandatory for B.E. students. It is to be completed in two equal parts. The first part must have been completed in summer after IV sem. The second part to be completed during summer after VI sem. after which students have to submit a training report which will be evaluated by college teachers during B.E. VII sem.



Chhattisgarh Swami Vivekanand Technical University, Bhilai

SCHEME OF TEACHING & EXAMINATION

B.E. (Civil) – 7th SEMESTER

S. No .	Board of Study	Subject Code	Subject	Periods per Week			Scheme of Examination			Total Marks	Credit
				L	T	P	Theory/ Pract.				L+(T+P)/ 2
							ESE	CT	TA		
1	Civil Engg.	320731(20)	Structural Engineering Design - III	4	1	-	80	20	20	120	5
2	Civil Engg.	320732(20)	Water Resources Engineering - I	4	1	-	80	20	20	120	5
3	Civil Engg.	320733(20)	Environmental Engineering - II	4	1	-	80	20	20	120	5
4	Civil Engg.	320734(20)	Quantity Surveying and Cost Evaluation	3	1	-	80	20	20	120	4
5	Refer	Table-2	Professional Elective- II	3	1	-	80	20	20	120	4
6	Civil Engg.	320761(20)	Structural Engineering Drawing - I Lab	-	-	3	40	-	20	60	2
7	Civil Engg.	320762(20)	Environmental Engineering - II Lab	-	-	3	40	-	20	60	2
8	Civil Engg.	320763(20)	Quantity Surveying and Cost Evaluation Lab	-	-	3	40	-	20	60	2
9	Civil Engg.	320764(20)	Minor Project	-	-	5	100	-	40	140	3
10	Management	320765(76)	Innovative and Entrepreneurial Skills	-	-	2	-	-	40	40	1
11	Civil Engg.	320766(20)	**Practical Training Evaluation and Library	-	-	1	-	-	40	40	1
			Total	18	5	17	620	100	280	1000	34

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

**** To be completed after VI Sem. and before the commencement of VII Sem.**

Table-2: Professional Elective-II

S. No.	Board of Study	Subject Code	Subject
1	Civil Engg.	320741(20)	Quality Control and Assurance in Construction
2	Civil Engg.	320742(20)	Safety in Construction
3	Civil Engg.	320743(20)	Fabrication and Erection of Structures
4	Civil Engg.	320744(20)	Construction Equipments and Techniques
5	Civil Engg.	320745(20)	Expansive Soils
6	Civil Engg.	320746(20)	Geotechnical Processes
7	Civil Engg.	320747(20)	Foundation Engineering
8	Civil Engg.	320748(20)	Transportation Planning and Management
9	Civil Engg.	320749(20)	Advanced Transportation Engineering
10	Civil Engg.	320750(20)	Traffic Engineering

Note:

- (1) 1/4th of total strength of students subject to minimum of twenty students is required to offer an 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, Bhilai

SCHEME OF TEACHING & EXAMINATION

B.E. (Civil) – 8th SEMESTER

S. No.	Board of Study	Subject Code	Subject	Periods per Week			Scheme of Examination Theory/Pract.			Total Marks	Credit
				L	T	P	ESE	CT	TA		
1	Civil Engg.	320831(20)	Structural Engineering Design - IV	4	1	-	80	20	20	120	5
2	Civil Engg.	320832(20)	Water Resources Engineering - II	4	1	-	80	20	20	120	5
3	Civil Engg.	320833(20)	Structural Analysis-III	4	1	-	80	20	20	120	5
4	Refer Table -3		Professional Elective - III	3	1	-	80	20	20	120	4
5	Refer Table -4		Open Elective - IV	3	1	-	80	20	20	120	4
6	Civil Engg.	320861(20)	Structural Engineering Drawing – II Lab	-	-	3	40	-	20	60	2
7	Civil Engg.	320862(20)	Water Resources Engineering Drawing Lab	-	-	3	40	-	20	60	2
8	Civil Engg.	320863(20)	Computer Applications in Civil Engineering Lab	-	-	3	40	-	20	60	2
9	Civil Engg.	320864(20)	Major Project	-	-	5	100	-	80	180	3
10	Civil Engg.	320865(20)	Report Writing and Seminar	-	-	2	-	-	40	40	1
11			Library	-	-	1	-	-	-	-	-
Total				18	5	17	620	100	280	1000	33

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

Table-3: Professional Elective III

S. No.	Board of Study	Subject Code	Subject
1	Civil Engg.	320841(20)	Industrial Waste Treatment
2	Civil Engg.	320842(20)	Advanced Environmental Engineering
3	Civil Engg.	320843(20)	Environmental Pollution and Management
4	Civil Engg.	320844(20)	Air Pollution and Control Measures
5	Civil Engg.	320845(20)	Prestressed Concrete Structures
6	Civil Engg.	320846(20)	Computer Applications in Civil Engineering
7	Civil Engg.	320847(20)	Seismic Design of Structures
8	Civil Engg.	320848(20)	Open Channel Flow
9	Civil Engg.	320849(20)	Water Resources Planning and Management
10	Civil Engg.	320850(20)	Water Shed Management

Table-4: Open Elective -IV

Open Elective –IV			
S.No.	Board of Studies	Code	Name of Subject
1	Management	300851(76)	Enterprise Resource Planning (Except CSE & IT Branch)
2	Information Technology	300852(33)	E-Commerce & strategic IT (Except CSE & IT Branch)
3	Management	300853(76)	Technology Management
4	Information Technology	300854(33)	Decision Support & Executive Information system
5	Computer Science & Engg.	300855(22)	Software Technology
6	Management	300856(76)	Knowledge Entrepreneurship
7	Management	300857(76)	Finance Management
8	Management	300858(76)	Project Planning, Management & Evaluation
9	Mechanical Engg.	300859(37)	Safety Engineering
10	Computer Science & Engg.	300801(22)	Bio Informatics
11	Mechanical Engg.	300802(37)	Energy Conservation & Management
12	Nanotechnology	300803(47)	Nanotechnology
13	Management	300804(76)	Intellectual Property Rights
14	Mechanical Engg.	300805(37)	Value Engineering
15	Civil Engg.	300806(20)	Disaster Management
16	Civil Engg.	300807(20)	Construction Management
17	Civil Engg.	300808(20)	Ecology and Sustainable Development
18	Chem. Engg.	300809(19)	Non Conventional Energy Sources
19	Electrical Engg.	300810(24)	Energy Auditing & Management (Except Electrical Engg. Branch)
20	Mechanical Engg.	300811(37)	Managing Innovation & Entrepreneurship
21	Information Technology	300812(33)	Biometrics
22	Information Technology	300813(33)	Information Theory & Coding
23	Computer Science & Engg.	300814(22)	Supply Chain Management
24	Computer Science & Engg.	300815(22)	Internet & Web Technology
25	Electrical Engg.	300816(24)	Electrical Estimation and Costing
26	Electrical& Electronics Engg.	300817(25)	Non Conventional Energy Sources
27	Computer Science & Engg.	300818(22)	Big Data and Hadoop

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

(2) -Choice of elective course once made for an examination cannot be changed

Table - IV

Open Elective –IV			
S.No.	Board of Studies	Code	Name of Subject
1	Management	300851(76)	Enterprise Resource Planning (Except CSE & IT Branch)
2	Information Technology	300852(33)	E-Commerce & strategic IT (Except CSE & IT Branch)
3	Management	300853(76)	Technology Management
4	Information Technology	300854(33)	Decision Support & Executive Information system
5	Computer Science & Engg.	300855(22)	Software Technology
6	Management	300856(76)	Knowledge Entrepreneurship
7	Management	300857(76)	Finance Management
8	Management	300858(76)	Project Planning, Management & Evaluation
9	Mechanical Engg.	300859(37)	Safety Engineering
10	Computer Science & Engg.	300801(22)	Bio Informatics
11	Mechanical Engg.	300802(37)	Energy Conservation & Management
12	Nanotechnology	300803(47)	Nanotechnology
13	Management	300804(76)	Intellectual Property Rights
14	Mechanical Engg.	300805(37)	Value Engineering
15	Civil Engg.	300806(20)	Disaster Management
16	Civil Engg.	300807(20)	Construction Management
17	Civil Engg.	300808(20)	Ecology and Sustainable Development
18	Chem. Engg.	300809(19)	Non Conventional Energy Sources
19	Electrical Engg.	300810(24)	Energy Auditing & Management (Except Electrical Engg. Branch)
20	Mechanical Engg.	300811(37)	Managing Innovation & Entrepreneurship
21	Information Technology	300812(33)	Biometrics
22	Information Technology	300813(33)	Information Theory & Coding
23	Computer Science & Engg.	300814(22)	Supply Chain Management
24	Computer Science & Engg.	300815(22)	Internet & Web Technology
25	Electrical Engg.	300816(24)	Electrical Estimation and Costing
26	Electrical & Electronics Engg.	300817(25)	Non Conventional Energy Sources
27	Computer Science & Engg.	300818(22)	Big Data and Hadoop

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

(2) - Choice of elective course once made for an examination cannot be changed