



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

SCHEME OF TEACHING AND EXAMINATION

B Tech (Third Semester - Chemical 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.	Chemical Engineering	Material and Energy Balance Computations	B019312(019)	3	1	-	100	20	30	150	4
3.	Chemical Engineering	Fuel Technology	B019313(019)	3	1	-	100	20	30	150	4
4.	Chemical Engineering	Inorganic Process Technology	B019314(019)	2	1	-	100	20	30	150	3
5.	Chemical Engineering	Instrumentation and Measurement	B019315(019)	2	-	-	100	20	30	150	2
6.	Chemical Engineering	Fuel Technology Lab	B019321(019)	-	-	2	40	-	20	60	1
7.	Chemical Engineering	Inorganic Process Technology Lab	B019322(019)	-	-	2	40	-	20	60	1
8.	Chemical Engineering	Instrumentation and Measurement Lab	B019323(019)	-	-	2	40	-	20	60	1
9.	Chemical Engineering	Software Lab	B019324(019)	-	-	2	40	-	20	60	1
10.	Humanities	Personality Development	B000306(046)	-	-	2	-	-	10	10	-
Total Marks				13	4	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 (CSVТУ), Bhilai (CG)



SCHEME OF TEACHING AND EXAMINATION

B Tech (Fourth Semester - Chemical Engineering)

Sl. No.	Board of Studies (BOS)	Courses (Subject)	Course Code	Period per Week			Scheme of Examination			Total Marks	Credits
				L	T	P	Theory/Lab				
							ESE	CT	TA		
1.	Chemical Engineering	Fluid Mechanics	B019411(019)	3	1	-	100	20	30	150	4
2.	Chemical Engineering	Heat Transfer Operation	B019412(019)	3	1	-	100	20	30	150	4
3.	Chemical Engineering	Organic Process Technology	B019413(019)	3	1	-	100	20	30	150	4
4.	Chemical Engineering	Numerical Method in Chemical Engineering	B019414(019)	2	1	-	100	20	30	150	3
5.	Chemical Engineering	Material Science	B019415(019)	2	0	-	100	20	30	150	2
6.	Chemical Engineering	Fluid Mechanics Lab	B019421(019)	-	-	2	40	-	20	60	1
7.	Chemical Engineering	Heat Transfer Operation Lab	B019422(019)	-	-	2	40	-	20	60	1
8.	Chemical Engineering	Organic Process Technology Lab	B019423(019)	-	-	2	40	-	20	60	1
9.		Virtual Lab	B019424(019)	-	-	2	40	-	20	60	1
10.	Non-Credit	Indian Culture and Constitution of India	B000406(046)	-	-	2	-	-	10	10	-
Total				13	4	10	660	100	240	1000	21

L-Lecture, T-Tutorial, P-Practical, ESE-End Semester Exam, CT- Class Test,

TA-Teacher's Assessment

Note:

- Duration of End Semester Exam of all theory papers will be of Three Hours.
- Industrial Training of eight weeks is mandatory for B.Tech.. 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 (CSV TU, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Fifth Semester - Chemical 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.	Chemical Engineering	Chemical Engineering Thermodynamics	C019511(019)	3	1	-	100	20	30	150	4
2.	Chemical Engineering	Chemical Engineering Reaction	C019512(019)	3	1	-	100	20	30	150	4
3.	Chemical Engineering	Process Equipment Design – I	C019513(019)	3	1	-	100	20	30	150	4
4.	Chemical Engineering	Mechanical Operation	C019514(019)	2	1	-	100	20	30	150	3
5.	Professional Elective-I(Refer Table I)			2	0	-	100	20	30	150	2
6.	Chemical Engineering	Chemical Engineering Lab	C019521(019)	-	-	2	40	-	20	60	1
7.	Chemical Engineering	Process Equipment Design – I Viva	C019522(019)	-	-	2	40	-	20	60	1
8.	Chemical Engineering	Mechanical Operation Lab	C019523(019)	-	-	2	40	-	20	60	1
9.	Chemical Engineering	Project – I (Based on Summer Internship/ Industrial Training)	C019524(019)	-	-	2	40	-	20	60	1
10.	Non-Credit	Environmental Studies	C000506(020)	-	-	2	-	-	10	10	-
Total				13	4	10	660	100	240	1000	21

L – Lecturer
P – Practical,
TA – Teacher's Assessment

T – Tutorial,
ESE – End Semester Exam,

CT – Class Test

Table I (Professional Elective I)

S.N.	Board of Studies	Course Code	Subject
1.	Chemical Engineering	C019531(019)	Nanotechnology
2.	Chemical Engineering	C019532(019)	Optimization 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 (CSVTV, NEWAI (C.G.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Sixth Semester – Chemical 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.	Chemical Engineering	Mass Transfer –I	C019611(019)	3	1	-	100	20	30	150	4
2.	Chemical Engineering	Transport Phenomena	C019612(019)	3	1	-	100	20	30	150	4
3.	Chemical Engineering	Process Equipment Design –II	C019613(019)	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 III)			2	0	-	100	20	30	150	2
6.	Chemical Engineering	Mass Transfer –I Lab	C019621(019)	-	-	2	40	-	20	60	1
7.	Chemical Engineering	Transport Phenomena - Lab	C019622(019)	-	-	2	40	-	20	60	1
8.	Chemical Engineering	Process Equipment Design –II - Viva	C019623(019)	-	-	2	40	-	20	60	1
9.	Professional Elective – II Lab (Refer Table II)			-	-	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.	Chemical Engineering	Petroleum Refinery Engineering	C019631(019)
2.	Chemical Engineering	Polymer Science & Engineering	C019632(019)

Table I (Professional Elective II Lab)

S.N.	Board of Studies	Subject	Course Code
1.	Chemical Engineering	Petroleum Refinery Engineering	C019624(019)
2.	Chemical Engineering	Polymer Science & Engineering	C019625(019)

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.))

SCHEME OF TEACHING AND EXAMINATION

B Tech (Seventh Semester - Chemical 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.	Chemical Engg	Mass Transfer–II	D019711(019)	3	1	-	100	20	30	150	4
2.	Chemical Engg	Process Dynamics & Control	D019712(019)	2	1	-	100	20	30	150	3
3.	Chemical Engg	Process Equipment Design–III	D019713(019)	2	1	-	100	20	30	150	3
4.	Professional Elective –III (Refer to Table I)			1	1	-	100	20	30	150	2
5.	Open Elective- II (Refer to Table II)			2	0	-	100	20	30	150	2
6.	Chemical Engg	Mass Transfer–II Lab	D019721(019)	-	-	2	40	-	20	60	1
7.	Chemical Engg	Process Dynamics & Control Lab	D019722(019)	-	-	2	40	-	20	60	1
8.	Chemical Engg	Project (Phase I)	D019723(019)	-	-	6	60	-	40	100	3
9.	Chemical Engg	Industrial Training	D019724(019)			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.	Chemical Engineering	D019731(019)	Solid Waste Engineering
2.	Chemical Engineering	D019732(019)	Food Technology

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.))

SCHEME OF TEACHING AND EXAMINATION

B.Tech (Eight Semester - Chemical 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.	Chemical Engineering	Modeling & Simulation (MS)	D019811(019)	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 – III)			2	0	-	100	20	30	150	2
4.	Chemical Engineering	Modeling & Simulation (Lab) (MS Lab)	D019821(019)	-	-	2	40	-	20	60	1
5.	Chemical Engineering	Biochemical Engineering (Lab) (BCE Lab)	D019822(019)	-	-	2	40	-	20	60	1
6.	Chemical Engineering	Project (Phase – II)	D019823(019)	-	-	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	Subject
1.	Chemical Engineering	D019831(019)	Biochemical Engineering (BCE)
2.	Chemical Engineering	D019832(019)	Membrane Science & Technology (MST)

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.