

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI (C.G.)**

**SCHEME OF TEACHING AND EXAMINATION
B.E. (Plastics Engineering) III Semester**

Sl. No.	Board of Study	Subject Code	Subject	Period Per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+ (T+P)/2
				L	T	P	ESE	CT	TA		
1	Chemical Engineering	319351 (14)	Mathematics-III	4	1	-	80	20	20	120	5
2	Plastics Engineering	395352 (95)	Polymer Chemistry	4	-	-	80	20	20	120	4
3	Chemical Engg	319353 (19)	Fundamentals of chemical Engineering	3	1	-	80	20	20	120	4
4	Plastics Engineering	395354 (95)	Fundamentals of plastics product, mould & die design	3	1	-	80	20	20	120	4
5	Mechanical Engg	319355 (37)	Strength of Materials	3	1	-	80	20	20	120	4
6	Chemical Engg	319356 (19)	Instrumentation & Measurement	3	1	-	80	20	20	120	4
7	Plastics Engineering	395361 (95)	CAD/CAM Lab	-	-	3	40	-	20	60	2
8	Plastics Engineering	395362 (95)	Polymer Chemistry Lab	-	-	3	40	-	20	60	2
9	Mechanical Engg	395363 (37)	Strength of Materials Lab	-	-	3	40	-	20	60	2
10	Chemical Engg	395364 (19)	Instrumentation & Measurement lab	-	-	3	40	-	20	60	2
11	Humanities	319365 (46)	Value Education	-	-	2	-	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
TOTAL				20	05	15	640	120	240	1000	34

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

Note:-Duration of all theory papers will be of three hours.

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI (C.G.)**

**SCHEME OF TEACHING AND EXAMINATION
B.E. (Plastics Engineering) IV Semester**

Sl. No	Board of Study	Subject Code	Subject	Period Per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+ (T+P)/2
				L	T	P	ESE	CT	TA		
1	Plastics Engineering	395451 (95)	Mould Engineering	4	1	-	80	20	20	120	5
2	Chemical Engineering	319452 (19)	Environmental Pollution & Control	3	1	-	80	20	20	120	4
3	Plastics Engineering	395453 (95)	Plastics Testing Technology-I	3	1	-	80	20	20	120	4
4	Chemical Engineering	319454(19)	Material Technology	4	0	-	80	20	20	120	4
5	Plastics Engineering	395455 (95)	Physical Chemistry of Polymer	4	0	-	80	20	20	120	4
6	Plastics Engineering	395456 (95)	CAD/CAM/CAE for Plastics Engineering	4	0	-	80	20	20	120	4
7	Plastics Engineering	395461 (95)	Mould Engineering Lab	-	-	3	40	-	20	60	2
8	Chemical Engg.	395462 (19)	Environmental Pollution Control Lab	-	-	3	40	-	20	60	2
9	Plastics Engg	395463 (95)	Plastics Testing Technology-I Lab	-	-	3	40	-	20	60	2
10	Plastics Engineering	395464 (95)	Design & mold flow analysis practice using CAD/CAM/CAE-Lab	-	-	3	40	-	20	60	2
11	Humanities	319465 (46)	Health, Hygienic & Yoga	-	-	2	-	-	40	40	1
12			Library	-	-	1	-	-	-	-	-
TOTAL				22	3	15	640	120	240	1000	34

L: Lecture

T: Tutorial

P: Practical

ESE End Semester Examination

CT: Class Test

TA:Teacher's Assessment

* Industrial Training of Six weeks is mandatory for B.Techstudents. 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.Tech. V sem

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI (C.G.)**

**SCHEME OF TEACHING AND EXAMINATION
B.E. (Plastics Engineering) V Semester**

SL. No	Board of Study	Subject Code	Subject	Period Per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+ (T+P)/2
				L	T	P	ESE	CT	TA		
1	Chemical Engg.	319551 (19)	Fluid Flow Operations	4	1	-	80	20	20	120	4
2	Chemical Engg.	319552 (19)	Heat Transfer Operations	4	1	-	80	20	20	120	4
3	Plastics Engineering	395553 (95)	Plastics materials & it's applications-I	4	-	-	80	20	20	120	4
4	Plastics Engineering	395554 (95)	Plastics Processing Technology-I	4	-	-	80	20	20	120	4
5	Chemical Engg.	319555 (19)	Chemical Engineering Thermodynamics	4	-	-	80	20	20	120	4
6	Plastics Engineering	395556 (95)	Additives & Compounding	3	1	-	80	20	20	120	4
7	Plastics Engineering	395561 (95)	Fluid Flow operations Lab-I	-	-	3	40	-	20	60	2
8	Plastics Engineering	395562 (95)	Heat Transfer Operations Lab	-	-	2	40	-	20	60	2
9	Plastics Engineering	395563 (95)	Plastics Processing Technology-I Lab	-	-	3	40	-	20	60	2
10	Plastics Engineering	395564 (95)	Additives & Compounding Lab	-	-	3	40	-	20	60	2
11	Humanities	300565(46)	Personality Development	-	-	2	-	-	20	20	2
12	Plastics Engineering	395566 (95)	Practical Training Evaluation/Seminar/ Library	-	-	1	-	-	20	20	1
TOTAL				23	3	14	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. students. 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. Tech. V sem.**

Name of the Programme: Bachelor of Engineering ::::: Duration of the programme: Four Years

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
BHILAI (C.G.)**

SCHEME OF TEACHING AND EXAMINATION

B.E. (Plastics Engineering) VI Semester

Sl. No	Board of Study	Subject Code	Subject	Period Per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+ (T+P)/2
				L	T	P	ESE	CT	TA		
1	Chemical Engineering	319651 (19)	System Analysis and Computer Programming	3	1	-	80	20	20	120	4
2	Plastics Engineering	395652 (95)	Modern Manufacturing Process	3	1	-	80	20	20	120	4
3	Plastics Engineering	395653 (95)	Plastics Testing Technology-II	4	1	-	80	20	20	120	4
4	Plastics Engineering	395654 (95)	Advanced Plastics Processing Techniques	4	1	-	80	20	20	120	4
5	Plastics Engineering	395655 (95)	Polymer Structure & Properties relationship	4	-	-	80	20	20	120	4
6	Refer Table-I		Professional Elective- I	4	-	-	80	20	20	120	4
7	Plastics Engineering	395661 (95)	System Analysis & Computer Programming Lab	-	-	3	40		20	60	2
8	Plastics Engineering	395662 (95)	Modern Manufacturing Lab	-	-	3	40		20	60	2
9	Plastics Engineering	395663 (95)	Plastics Testing Technology-II Lab	-	-	3	40		20	60	2
10	Plastics Engineering	395664 (95)	Plastics Processing Lab-II	-	-	2	40		20	60	2
11	Management	300665 (76)	Managerial Skill	-	-	2	-		20	20	1
12		395666 (95)	Seminar/Library	-	-	1			20	20	1
TOTAL				22	4	14	640	120	240	1000	34

PLASTICS ENGINEERING

Table - I Professional Elective - I

Sl. No	Board of Study	Subject Code	Subject
1	Chemical Engineering	319671 (19)	Optimization technique
2	Chemical Engineering	319672 (19)	Membrane Science and Engineering
3	Chemical Engineering	319673 (19)	Project Engineering
4	Chemical Engineering	319674 (19)	Nanotechnology

Note:-

- Industrial Training of eight weeks is mandatory for B.E. students. 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. VII sem.
- 1/4th of total strength subject to minimum of 20 students is required to offer an elective in the college in a particular Academic session.
- Choice of elective course once made for an examination cannot be change in future examination.

L: Lecture

T: Tutorial

P: Practical

ESE- End Semester Examination

CT: Class Test

TA: Teacher's Assessment

Name of the Programme: Bachelor of Engineering ::::: Duration of the programme: Four Years

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
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**SCHEME OF TEACHING AND EXAMINATION
B.E. (Plastics Engineering) VII Semester**

S. No	Board of Study	Subject Code	Subject	Period Per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+ (T+P)/2
				L	T	P	ESE	CT	TA		
1	Plastics Engineering	395751 (95)	Plastics Waste Management & Recycling Technology	4	1	-	80	20	20	120	5
2	Plastics Engineering	395752 (95)	Polymer Rheology	3	1	-	80	20	20	120	4
3	Plastics Engineering	395753 (95)	Polymer Composite Technology	4	1	-	80	20	20	120	5
4	Plastics Engineering	395754 (95)	Plastics Packaging Technology	4	1	-	80	20	20	120	5
5	Refer Table-II		Elective-II	4	1	-	80	20	20	120	5
6	Plastics Engineering	395761 (95)	Plastics Waste Management Technology Lab	-	-	3	40	-	20	60	2
7	Plastics Engineering	395762 (95)	Polymer Rheology Lab	-	-	3	40	-	20	60	2
8	Plastics Engineering	395763 (95)	Polymer Composite Technology Lab	-	-	3	40	-	20	60	2
9	Chemical Engineering	395764 (19)	Minor Project	-	-	4	100	-	40	140	2
10	Chemical Engineering	395765 (19)	Innovative and Entrepreneurial Skills	-	-	2	-	-	40	40	1
11	Chemical Engineering	395766 (19)	Practical Training Evaluation and Library	-	-	1	-	-	40	40	1
TOTAL				19	5	16	620	100	280	1000	34

**Table - II
Professional Elective - II**

S.No.	Board of Study	Subject Code	Subject
1	Plastics Engineering	395771 (95)	Polymer Nano composite
2	Plastics Engineering	395772 (95)	Polyurethane Technology
3	Plastics Engineering	395773 (95)	Biodegradable Polymers
4	Plastics Engineering	395774 (95)	Nylon Technology

Note:-

- All theory papers will be of three hours duration
- ** To be completed after VI semester and before the Commencement of VII semester.
- 1/^{4th} of total strength of student subject to minimum of 20 students is required to offer an elective in the college in a particular Academic session.
- Choice of elective course once made for an examination cannot be change in future examination.

L: Lecture

T: Tutorial

P: Practical

ESE- End Semester Examination

CT: Class Test

TA: Teacher's Assessment

Name of the Programme: Bachelor of Engineering ::::: Duration of the programme : Four Years

**CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY,
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**SCHEME OF TEACHING AND EXAMINATION
B.E. (Plastics Engineering) VIII Semester**

S. No	Board of Study	Subject Code	Subject	Period Per Week			Scheme of Exam Theory/Practical			Total Marks	Credit L+ (T+P)/2
				L	T	P	ESE	CT	TA		
1	Plastics Engineering	395851 (95)	Process Economics & Management for Plastics Engineering	4	1	-	80	20	20	120	5
2	Plastics Engineering	395852 (95)	Polymerization Engineering	3	1	-	80	20	20	120	4
3	Plastics Engineering	395853 (95)	Fiber Technology	4	1	-	80	20	20	120	5
4	Refer Table-III		Professional Elective-III	4	0	-	80	20	20	120	4
5	Refer Table-IV		Open Elective-IV	4	0	-	80	20	20	120	4
6	Plastics Engineering	395861 (95)	Polymerization Engineering Lab	-	-	3	40	-	20	60	2
7	Plastics Engineering	395862 (95)	Fiber Technology Lab	-	-	3	40	-	20	60	2
8	Plastics Engineering	395863 (95)	Adhesive & Surface Coating Lab	-	-	3	40	-	20	60	2
9	Chemical Engineering.	395864 (19)	Major Project	-	-	6	100	-	80	180	2
10	Chemical Engineering.	395865 (19)	Report Writing and Seminar	-	-	2	-	-	40	40	3
11			Library	-	-	1	-	-	-	-	1
TOTAL				19	3	18	620	100	280	1000	34

**Table - III
Professional Elective - III**

S. No	Board of Study	Subject Code	Subject
1	Chemical Engineering	319842 (19)	Process Engg. And Costing
2	Chemical Engineering	395871 (19)	Fuel and Energy Technology
3	Chemical Engineering	319844 (19)	Pulp and paper Technology

Note:-

1. All theory papers will be of three hours duration
2. 1/4th of total strength of student subject to minimum of 20 students is required to offer an elective in the college in a particular Academic session.
3. Choice of elective course once made for an examination cannot be change in future examination.

L: Lecture

T: Tutorial

P: Practical

ESE- End Semester Examination

CT: Class Test

TA: Teacher's Assessment

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	Management	300804 (76)	Intellectual Property Rights
13	Mechanical Engg.	300805 (37)	Value Engineering
14	Civil Engg.	300806 (20)	Disaster Management
15	Civil Engg.	300807 (20)	Construction Management
16	Civil Engg.	300808 (20)	Ecology and Sustainable Development
17	Chem. Engg.	300809 (19)	Non Conventional Energy Sources
18	Electrical Engg.	300810 (24)	Energy Auditing & Management (Except Electrical Engg. Branch)
19	Mechanical Engg.	300811 (37)	Managing Innovation & Entrepreneurship
20	Information Technology	300812 (33)	Biometrics
21	Information Technolgy	300813 (33)	Information Theory & Coding
22	Computer Science & Engg.	300814 (22)	Supply Chain Management
23	Computer Science & Engg.	300815 (22)	Internet & Web Technology
24	Electrical Engg.	300816 (24)	Electrical Estimation and Costing
25	Electrical & Electronics Engg.	300817 (79)	Non Conventional Energy Sources