SIR VISVESVARAYA INSTITUTE OF TECHNOLOGY, SINNAR, NASHIK
CHEMICAL ENGINEERING DEPARTMENT
Savitribai Phule Pune University Syllabus Structure
BE Chemical (2012 Course)

Semester-I **With effect from AY: 2015-16**

Code	Subject	Teaching Scheme (H/week)			Examination Scheme					Total Marks
		Leet	PR	Drw /Tu	In Semester	TW	PR	OR	End Semester	
409341	Process Dynamics and Control	4	2	-	30	-	50	-	70	150
409342	Chemical Reaction Engineering II	3	-	-	30	-	-	-	70	100
409343	Chemical Engineering Design II	3	-	2	30	-	-	50	70	150
409344	Elective I	3	-	2	30	25	-	-	70	125
409345	Elective II	3	-	-	30	-	-	-	70	100
409346	Industrial Training Evaluation	-	-	-	-	50	-	-	-	50
409347	Computer Aided Chemical Engineering II	-	2	-	-	25	-	-	-	25
409348	Project Phase I	-	-	2	-	50	-	-	-	50
Total		**16**	**4**	6	**150**	**150**	**50**	**50**	**350**	**750**

Semester-II

Code	Subject	Teaching Scheme (H/week)			Examination Scheme					Total Marks
		Leet	PR	Drw /Tu	In Semester	TW	PR	OR	End Semester	
409349	Process Modeling and Simulation	4	2	--	30	50	--	50	70	200
409350	Process Engineering Costing & Plant Design	4	--	4	30	50	--	50	70	200
409351	Elective III	3	--	--	30	--	--	--	70	100
409352	Elective IV	3	--	--	30	--	--	--	70	100
409353	Project Phase II	--	--	6	--	100	--	50	--	150
Total		**14**	**2**	**10**	**120**	**200**	--	**150**	**280**	**750**

Elective			
Elective-I	Elective-II	Elective-III	Elective-IV
1. Environmental Engineering	1. Chemical Process Synthesis	1. Energy Conservation In Chemical Process Industries	1. Catalysis
2. Membrane Technology	2. Industrial Management & Entreprencurship	2. Chemical Process Safety	2. Nanotechnology
3. Corrosion Engineering	3. Piping Design & Engineering	3. Food Technology	3. Fuel Cell Technology
4. Petroleum Refining	4. Advance Separation Processes	4. Advanced Materials	4. Petrochemical Engineering

Principal
Sir Visvesvaraya Institute of Technology
Chincholi,Nasik-422102

Head Of Department
Department of Chemical Engineering
S.V.I.T. Chincholi

SIR VISVESVARAYA INSTITUTE OF TECHNOLOGY, SINNAR, NASHIK

CHEMICAL ENGINEERING DEPARTMENT

Savitribai Phule Pune University Syllabus Structure

TE Chemical (2015 Course)

Semester-I **With effect from AY:2017-18**

Code	Subject	Teaching Scheme (H/week)			Examination Scheme					Total Marks	Credit (Th+ PR)
		L	P	T	In Semester	TW	PR	OR	End Semester		
309341	Chemical Engineering Mathematics	4	-	-	30	-	-	-	70	100	4
309342	Mass Transfer-I	4	2	-	30	-	50	-	70	150	4+1
309343	Industrial Organization & Management	3	2	-	30	-	-	50	70	150	3+1
309344	Chemical Process Technology	4	2	-	30	-	-	50	70	150	4+1
309345	Chemical Engineering Thermodynamics-II	3	-	-	30	-	-	-	70	100	3
309346	Computer Aided Chemical Engineering-I	-	2	-	-	50	-	-	--	50	1
309347	Industrial Training-I (Evaluation)	-	-	-	-	50	-	-	--	50	1
	Total	**18**	**08**	**-**	**150**	**100**	**50**	**100**	**350**	**750**	**23**

Semester-II

Code	Subject	Teaching Scheme (H/week)			Examination Scheme					Total Marks	Credit (Th+ PR
		L	P	T	In Semester	TW	PR	OR	End Semester		
309348	Chemical Reaction Engineering-I	4	2	--	30	--	50	--	70	150	4+1
309349	Transport Phenomena	4	--	--	30	--	--	--	70	100	4
309350	Chemical Engineering Design-I	3	2	--	30	--	--	50	70	150	3+1
309351	Mass Transfer-II	4	2	--	30	--	50	--	70	150	4+1
309352	Process Instrumentation & Control	3	2	--	30	50	--	--	70	150	3+1
309353	Seminar	--	2	--	--	50	--	--	--	50	1
309354	Industrial Training-II	To be evaluated in 7th Semester									
	Total	**18**	**10**	**--**	**150**	**100**	**100**	**50**	**350**	**750**	**23**

Principal
Sir Visvesvaraya Institute of Technology
Chandori, Nashik-422 102

Head Of Department
Department of Chemical Engineering
S. V. I. T. Chandori

Savitribai Phule Pune University
Second Year of Computer Engineering (2015 Course)
(With effect from Academic Year 2016-17)

Semester I

Course Code	Course Name	Teaching Scheme Hours /Week			Examination Scheme & Marks						Credit	
		Theory	Tutorial	Practical	In-Sem	End-Sem	TW	PR	OR	Total	TH+ TUT	PR
210241	Discrete Mathematics	04	–	–	50	50	–	–	–	100	04	–
210242	Digital Electronics and Logic Design	04	–	–	50	50	–	–	–	100	04	–
210243	Data Structures and Algorithms	04	–	–	50	50	–	–	–	100	04	–
210244	Computer Organization and Architecture	04	–	–	50	50	–	–	–	100	04	–
210245	Object Oriented Programming	04	–	–	50	50	–	–	–	100	04	–
210246	Digital Electronics Lab	–	–	02	–	–	25	50	–	75	–	01
210247	Data Structures Lab	–	–	04	–	–	25	50	–	75	–	02
210248	Object Oriented Programming Lab	–	–	02	–	–	25	50	–	75	–	01
210249	Soft Skills	–	–	02	–	–	25	–	–	25	–	01
Total											20	05
210250	Audit Course I	–	–	–	–	–	–	–	–	–	Grade	
Total		20	–	10	250	250	100	150	–	750	25	

Abbreviations:

TW: Term Work
OR: Oral
PR: Practical
TH: Theory
TUT: Tutorial
Sem: Semester

Principal
Sir Visvesvaraya Institute of Technology
Chincholi,Nasik-422102

Savitribai Phule Pune University
Second Year of Computer Engineering (2015 Course)
210250: Audit Course 1
AC1-II: Humanities and Social Sciences

Objective of Humanities and Social Science (HSS) is to produce well-rounded engineers, not only having good technological skills but also with the ability to interact with different organs of an organization.

HSS is concerned with society and the relationships among individuals within a society. It in turn has many branches, each of which is considered a "social science". The main social sciences include economics, political science, human geography, demography and sociology. In a wider sense, socialscience also includes some fields in the humanities such as anthropology, archaeology, psychology, history, law and linguistics.

Course Objectives:

- Human and social development;
- Contemporary national and international affairs;
- Emergence of Indian society and Economics

Course Outcomes:

On completion of the course, student will be able to–

- Making engineering and technology students aware of the various issues concerning man and society.
- These issues will help to sensitize students to be broader towards the social, cultural, economic and human issues, involved in social changes
- Able to understand the nature of the individual and the relationship between the self and the community
- Understanding major ideas, values, beliefs, and experiences that have shaped human history and cultures

Course Contents

1. **Indian Society :** Structure of Indian Society, Indian Social Demography– Social and Cultural, Differentiations: caste, class, gender and tribe; Institutions of marriage, family and kinship- Secularization –Social Movements and Regionalism- Panchayatraj Institutions; Indian constitution; Affirmative Action Programme of the Government- various reservations and commissions.

2. **Social Development:** Scientific approach to the study of human beings. Evolution of human kind, social change and evolution. Industrial revolution. National policy on education, health and health care and human development.

Principal
Sir Visvesvaraya Institute of Technology
Chincholi, Nasik-422102

Prof. & H.O.D.

3. **Sectoral Development: Agriculture:** Technology changes, Green revolutions, Employment Rural & Urban, Government Schemes. Industrial Development: Strategies, Public & Private Sectors, Categories, infrastructure, transport & communication, Consumer Awareness.

4. **Environment & Ecology:** Ecosystems: Structure, Working, components. Pollution: Water & Air Pollution, Global Warming, Control Strategies, International Treaties. Energy Sources: Renewable & Non Renewable, Hydro power, Biomass, Ocean, Geothermal & Tidal. Global Environmental Issues: Population Growth, Soil Degradation, Loss of Biodiversity.

References:

1. Krugman, —International Economics", Pearson Education, ISBN-13:000-01334-23646
2. Prakash, —The Indian Economy", Pearson Education, ISBN-8131758931
3. Thursen Gerald, —Egineering Economics", Prentice Hall, ISBN-10:0138221227
4. C.S. Rao, —Environmental Pollution Control Engineering", New Age International Pvt. Ltd, ISBN-812241835X
5. Rangarajan, —Environmental Issues in India, Pearson Education", ISBN-10:8131 708101
6. University of Delhi, —The Individual & Society", Pearson Education. ISBN-8131704173
7. Wikipedia.org / wiki /social studies.
8. M. N. Srinivas, —Social change in modern India, 1991", Orient Longman, ISBN-10:81 2500422X
9. David Mandelbaum, —Society in India", 1990, Popular, ISBN-10:8171540139
10. David Newman, —Exploring the architecture of everyday life", Pine Forge Press, 7th edition, ISBN-10:1452275947

SavitribaiPhule Pune University
S.E. Electrical Engineering 2015– Course
(w. e. f. 2016-2017)

Semester I													
Sr. No.	Subject Code	Subject Title	Teaching Scheme			Semester Examination Scheme of Marks						Credit	
						Paper		TW	PR	OR	Total	TH/ TUT	PR+OR
			Th.	Tut.	Pr.	In Sem(Online)	End Sem						
1.	203141	Power Generation Technologies	04	--	--	50	50	--	--	--	100	04	---
2.	207006	Engineering Mathematics-III	04	01	--	50	50	25	--	--	125	05	---
3.	203142	Material Science	04	--	02	50	50	--	--	50	150	04	01
4.	203143	Analog and Digital Electronics	04	--	02	50	50	25	50	--	175	04	01
5.	203144	Electrical Measurements and Instrumentation	04	--	02	50	50	25	50	--	175	04	01
6.	203151	Soft Skills	--	--	02	--	--	25	--	--	25	--	01
										Total		21	04
[redacted]			--	--	--	--	--	--	--	--	--	Grade: PP/NP	
Total			20	01	08	250	250	100	100	50	750	25	

Semester II													
Sr. No.	Subject Code	Subject Title	Teaching Scheme			Semester Examination Scheme of Marks						Credit	
						Paper		TW	PR	OR	Total	TH/ TUT	PR+OR
			Th.	Tut.	Pr.	In Sem (Online)	End Sem						
1.	203145	Power System I	04	--	--	50	50	--	--	--	100	04	--
2.	203146	Electrical Machines I	04	--	02	50	50	25	50	--	175	04	01
3.	203147	Network Analysis	04	--	02	50	50	50	--	--	150	04	01
4.	203148	Numerical Methods and Computer Programming	04	01	02	50	50	25	50	--	175	05	01
5.	203149	Fundamentals of Microcontroller and Applications	04	--	02	50	50	--	--	50	150	04	01
										Total		21	04
[redacted]												Grade: PP/NP	
Total			20	01	08	250	250	100	100	50	750	25	

TW: Term Work OR:Oral PR: Practical

PP: Passed (Only for non-credit courses) NP: Not Passed (Only for non-credit courses)

1.3.1

Audit Course

Audit Course: Optional for 1st and 2nd term of SE Electrical Engineering

'Audit Courses' means a Course in which the student shall be awarded Pass or Fail only. It is left to the discretion of the respective affiliated institute to offer such courses to the students. Evaluation of audit course will be done at institute level itself.

Teaching-learning process for these subjects be decided by concern faculty/industry experts appointed by the affiliated Engineering College.

Marks obtained by student for audit course will not be taken into consideration of SGPA or CGPA.

Audit Course I Solar Thermal Systems

Audit Course II (A) Solar PV Systems
Audit Course II (B) Maintenance of home appliances

Principal
Sir Visvesvaraya Institute of Technology
Chincholi, Nashik-422102

S.E. (Information Technology) 2015 Course to be implemented from June 2016

SEMESTER–I

Subject Code	Subject	Teaching Scheme			Examination Scheme					Total Marks	Credits
		Lecture	Tutorial	Practical	Theory Paper	Theory Online	TW	PR	OR		
214441	Discrete Structures	4	--	--	50	50	--	--	--	100	4
214442	Computer Organization&Architecture	4	--	--	50	50				100	4
214443	Digital Electronics and Logic Design	4	--	--	50	50	--	--	--	100	4
214444	Fundamentals of Data Structures	4	--	--	50	50	--	--	--	100	4
214445	Problem Solving and Object Oriented programming	4	--	--	50	50	--	--	--	100	4
214446	Digital Laboratory	--	--	2	--	--	25	50	--	75	1
214447	Programming Laboratory	--	--	4	--	--	25	50	--	75	2
214448	Object Oriented programming Lab.	--	--	2	--	--	25	50		75	1
214449	Communication Skills	--	--	2	--		25	--	--	25	1
	[redacted]	--	--	--	--	--	--	--	--	Grade	
	Total	20	--	10	250	250	100	150	--	750	25
	Total of Part-I	30 Hours			750						

SEMESTER – II

Subject Code	Subject	Teaching Scheme			Examination Scheme					Total Marks	Credits
		Lecture	Tutorial	Practical	Theory Paper	Theory Online	TW	PR	OR		
207003	Engineering Mathematics -III	4	1	--	50	50	25	--	--	125	5
214450	Computer Graphics	3	-	-	50	50	--	--	--	100	3
214451	Processor Architecture and Interfacing	4	-		50	50	--	--	--	100	4
214452	Data Structures & Files	4	-	-	50	50	--	--	--	100	4
214453	Foundations of Communication and Computer Network	4	-		50	50	--	--	--	100	4
214454	Processor Interfacing Laboratory	--	--	4	--	--	25	50	--	75	2
214455	Data Structure and Files Laboratory	--	--	4	--	--	25	50	--	75	2
214456	Computer Graphics Laboratory	--	--	2	--	--	25	50	--	75	1
	[redacted]	--	--	--	--	--	--	--	--	Grade	
	Total	19	01	10	250	250	100	150	--	750	25
	Total of Part-II	30 Hours			750						

Principal
Sir Visvesvaraya Institute of Technology
Chincholi,Nasik-422102

Audit Course1

In addition to credits course, it is recommended that there should be audit course (non-credit course) preferably in each semester from second year. The student will be awarded grade as AP on successful completion of audit course. The student may opt for one of the audit courses per semester, starting in second year first semester. Though not mandatory, such audit courses can help the student to get awareness of different issues which make impact on human lives and enhance their skill sets to improve their employability. List of audit courses offered in each semester is provided in curriculum. Each student has to choose one audit course from the list per semester. Evaluation of audit course will be done at institute level. Method of conduction and method of assessment for audit courses is suggested.

The student registered for audit course shall be awarded the grade AP and shall be indicated such grade in the Semester grade report for that course, provided student has the minimum attendance as prescribed by the Savitribai Phule Pune University and satisfactory in-semester performance and secured a passing grade in that audit course. No grade points are associated with this 'AP' grade and performance in these courses is not accounted in the calculation of the performance indices SGPA and CGPA. Evaluation of audit courses will be done at institute level itself.

(Ref-http://www.unipune.ac.in/Syllabi_PDF/revised-2015/engineering/UG_RULE_REGULATIONS_FOR_CREDIT_SYSTEM-2015_18June.pdf)

Guidelines for Conduction and Assessment (Any one or more of following but not limited to)

- Lectures/ Guest Lectures
- Visits (Social/Field) and reports
- Demonstrations
- Surveys
- Mini Project
- Hands on experience on specific focused topic

Guidelines for Assessment (Any one or more of following but not limited to)

- Written Test
- Demonstrations/ Practical Test
- Presentations
- IPR/Publication
- Report

List of courses under Audit Course1

Course Code	Audit Course Title
210250:AC1-I	Road Safety
210250:AC1-II	Humanities and Social Sciences
210250:AC1-III	Environmental Studies
210250:AC1-IV	Smart Cities

The detail course contents of above mentioned audit courses are available in Computer Engineering course syllabus.

Moreover students can opt for any other audit course from the list of Audit Courses of any branch of engineering.

Principal
Sir Visvesvaraya Institute of Technology
Chincholi,Nasik-422102

Audit Course2

In addition to credits course, it is recommended that there should be audit course (non-credit course) preferably in each semester from second year. The student will be awarded grade as AP on successful completion of audit course. The student may opt for one of the audit courses per semester starting in second year first semester. Though not mandatory, such audit courses can help the student to get awareness of different issues which make impact on human lives and enhance their skill sets to improve their employability. List of audit courses offered in each semester is provided in curriculum. Each student has to choose one audit course from the list per semester. Evaluation of audit course will be done at institute level. Method of conduction and method of assessment for audit courses is suggested.

The student registered for audit course shall be awarded the grade AP and shall be included such grade in the Semester grade report for that course, provided student has the minimum attendance as prescribed by the Savitribai Phule Pune University and satisfactory in-semester performance and secured a passing grade in that audit course. No grade points are associated with this 'AP' grade and performance in these courses is not accounted in the calculation of the performance indices SGPA and CGPA. Evaluation of audit course will be done at institute level itself.

(Ref-http://www.unipune.ac.in/Syllabi_PDF/revised-2015/engineering/UG_RULE_REGULATIONS_FOR_CREDIT_SYSTEM-2015_18June.pdf)

Guidelines for Conduction and Assessment (Any one or more of following but not limited to)

- Lectures/ Guest Lectures
- Visits (Social/Field) and reports
- Demonstrations
- Surveys
- Mini Project
- Hands on experience on specific focused topic

Guidelines for Assessment (Any one or more of following but not limited to)

- Written Test
- Demonstrations/ Practical Test
- Presentations
- IPR/Publication
- Report

List of courses under Audit Course2

Course Code	Audit Course Title
210258:AC 2-I	Water Management
210258:AC 2-II	Intellectual Property Rights and Patents
210258:AC2-III	The Science of Happiness
210258:AC2-IV	Stress Relief: Yoga and Meditation

The detail course contents of above mentioned audit courses are available in Computer Engineering 2015 course.

Moreover students can opt for any other audit course from the list of Audit Course2 of any branch of engineering.

Principal
Sir Visvesvaraya Institute of Technology
Chincholi,Nasik-422102

Structure of S.E. (Mechanical Engineering/ Automobile Engineering)
2015 Course

Semester-I

Subject Code	Subject	Teaching Scheme Hours/Week			Examination Scheme					Total Marks	Credits	
		L	Tut.	P.	In-Sem (online)	End-Sem	TW	Pr.	Oral		Lect/Tut	Pr/Or
207002	Engineering Mathematics –III	04	01	-	50	50	25	-	-	125	05	-
202041	Manufacturing Process-I	03	-	02	50	50	50	-	-	150	03	01
202042	Computer Aided Machine Drawing	01	-	02	--	--		50	-	50	01	01
202043	Thermodynamics	04	-	02	50	50	-	-	50	150	04	01
202044	Material Science	03	01	-	50	50	25	-	-	125	03	01
202051	Strength of Materials	04	-	02	50	50	-	-	50	150	04	01
					--	--						
	Total	19	02	08	250	250	100	50	100	750	20	05
	Total of Part-I	29 Hrs				750					25	

Note: Material Science and Engineering Mathematics-III practical may be carried out fortnightly for two hours, so that the tutorial hours may be used as practical.

Semester-II

Subject Code	Subject	Teaching Scheme Hours/Week			Examination Scheme					Total Marks	Credits	
		L	Tut.	P.	In-Sem (online)	End-Sem	TW	Pr.	Oral		Lect/Tut	Pr/Or
202045	Fluid Mechanics	04	-	02	50	50	-	50	-	150	04	01
202047	Soft Skills	-	-	02	--	--	25	-	-	25	-	01
202048	Theory of Machines– I	04	01	-	50	50	25	-	25	150	04	01
202049	Engineering Metallurgy	03	01	-	50	50	-	-	25	125	03	01
202050	Applied Thermodynamics	04	-	02	50	50	-	50	-	150	04	01
203152	Electrical and Electronics Engineering	03	-	02	50	50	25	-	-	125	03	01
202053	Machine Shop – I	-	-	02	--	--	25	-	-	25	-	01
	Total	18	02	10	250	250	100	100	50	750	18	07
	Total of Part-II	30 Hrs				750					25	

Note: Theory of Machine-I and Engineering Metallurgy practical may be carried out fortnightly for two hours, so that the tutorial hours may be used as practical.

Principal
Sir Visvesvaraya Institute of Technology
Chincholi Naka-422101

Audit Course1

In addition to credits courses, it is recommended that there should be audit course (non-credit course) from second year of Engineering. The student will be awarded grade as AP on successful completion of audit course. The student may opt for one of the audit courses, starting in second year first semester. Though not mandatory, such audit courses can help the student to get awareness of different issues which make impact on human lives and enhance their skill sets to improve their employability. List of audit courses offered in each semester is provided in curriculum. Student can choose one audit course from the list. Evaluation of audit course will be done at institute level. Method of conduction and method of assessment for audit courses is suggested.

The student registered for audit course shall be awarded the grade AP and shall be included such grade in the Semester grade report for that course, provided student has the minimum attendance as prescribed by the Savitribai Phule Pune University and satisfactory in-semester performance and secured a passing grade in that audit course. No grade points are associated with this 'AP' grade and performance in these courses is not accounted in the calculation of the performance indices SGPA and CGPA. Evaluation of audit course will be done at institute level itself.

(Ref-http://www.unipune.ac.in/Syllabi_PDF/revised-2015/engineering/UG_RULE_REGULATIONS_FOR_CREDIT_SYSTEM-2015_18June.pdf)

Guidelines for Conduction and Assessment (Any one or more of following but not limited to)

- Lectures/ Guest Lectures
- Visits (Social/Field) and reports
- Demonstrations
- Surveys
- Mini Project
- Hands on experience on specific focused topic

Guidelines for Assessment (Any one or more of following but not limited to)

- Written Test
- Demonstrations/ Practical Test
- Presentations
- IPR/Publication
- Report

List of courses under Audit Course1

Course Code	Audit Course Title
202054 A	Road Safety
202054 B	Innovations in engineering field/ Agriculture
202054 C	Value Education

The detail course contents of above mentioned audit courses are available in Mechanical Engineering 2015 course syllabus. Moreover students can opt for any other audit course from the list of Audit Course1 of any branch of engineering.

Principal
Sir Visvesvaraya Institute of Technology
Chincholi,Nasik-422102