

1. Curricular Aspects (100)

1.2 Academic Flexibility (30)

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1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/elective course system has been implemented (10)

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**Teaching and Evaluation Scheme for
First Year of B.E. /B. Tech. (Chemical/Mechanical/Civil/Petrochemical)**

Semester I

Sr. No.	Course Code	Name of the Course	Teaching Scheme			Evaluation Scheme			Credit
			L	T	P	IA	MSE	ESE	
1	MATH101	Engineering Mathematics-I	3	1	0	20	20	60	4
2	HS102	Communication Skills	3	0	0	20	20	60	3
3	PHY103	Engineering Physics	3	1	0	20	20	60	4
4	ME104	Engineering Graphics	2	0	0	20	20	60	2
5	CV105	Basic Civil Engineering	3	0	0	20	20	60	3
6	CHE106	Energy and Environment Engineering	2	0	0	20	20	60	2
7	HS102L	Communication Skills Laboratory	0	0	2	60	0	40	1
8	PHY103L	Engineering Physics Laboratory	0	0	2	60	0	40	1
9	ME104L	Engineering Graphics Laboratory	0	0	4	60	0	40	2
10	CV105L	Basic Civil Engineering Laboratory	0	0	2	60	0	40	1
11	WS100L	Workshop Practices	0	0	4	60	0	40	2
Total									25

Semester II

Sr. No.	Course Code	Name of the Course	Teaching Scheme			Evaluation Scheme			Credit
			L	T	P	IA	MSE	ESE	
1	MATH201	Engineering Mathematics-II	3	1	0	20	20	60	4
2	ME202	Engineering Mechanics	3	0	0	20	20	60	3
3	CHM203	Engineering Chemistry	3	1	0	20	20	60	4
4	EE204	Basic Electrical Engineering	3	0	0	20	20	60	3
5	EXE205	Basic Electronics Engineering	3	0	0	20	20	60	3
6	ICT206	Basic Computer Programming	3	0	0	20	20	60	3
7	ME202L	Engineering Mechanics Laboratory	0	0	2	60	0	40	1
8	CHM203L	Engineering Chemistry Laboratory	0	0	2	60	0	40	1
9	EE204L	Basic Electrical Engineering Laboratory	0	0	2	60	0	40	1
10	EXE205L	Basic Electronics Engineering Laboratory	0	0	2	60	0	40	1
11	ICT206L	Basic Computer Programming Laboratory	0	0	2	60	0	40	1
Total									25

**Teaching and Evaluation Scheme for
First Year of B. E. /B. Tech. (Electrical/Electronics/Computer/IT)**

Semester I

Sr. No.	Course Code	Name of the course	Teaching Scheme			Evaluation Scheme			Credit
			L	T	P	IA	MSE	ESE	
1	MATH101	Engineering Mathematics-I	3	1	0	20	20	60	4
2	ME102	Engineering Mechanics	3	0	0	20	20	60	3
3	CHM103	Engineering Chemistry	3	1	0	20	20	60	4
4	EE104	Basic Electrical Engineering	3	0	0	20	20	60	3
5	EXE105	Basic Electronics Engineering	3	0	0	20	20	60	3
6	ICT106	Basic Computer Programming	3	0	0	20	20	60	3
7	ME102L	Engineering Mechanics Laboratory	0	0	2	60	0	40	1
8	CHM103L	Engineering Chemistry Laboratory	0	0	2	60	0	40	1
9	EE104L	Basic Electrical Engineering Laboratory	0	0	2	60	0	40	1
10	EXE105L	Basic Electronics Engineering Laboratory	0	0	2	60	0	40	1
11	ICT106L	Basic Computer Programming Laboratory	0	0	2	60	0	40	1
		Total							25

Semester II

Sr. No	Course Code	Name of the course	Teaching Scheme			Evaluation Scheme			Credit
			L	T	P	IA	MSE	ESE	
1	MATH201	Engineering Mathematics-II	3	1	0	20	20	60	4
2	HS202	Communication Skills	3	0	0	20	20	60	3
3	PHY203	Engineering Physics	3	1	0	20	20	60	4
4	ME204	Engineering Graphics	2	0	0	20	20	60	2
5	CV205	Basic Civil Engineering	3	0	0	20	20	60	3
6	CHE206	Energy and Environment Engineering	2	0	0	20	20	60	2
7	HS202L	Communication Skills Laboratory	0	0	2	60	0	40	1
8	PHY203L	Engineering Physics Laboratory	0	0	2	60	0	40	1
9	ME204L	Engineering Graphics Laboratory	0	0	4	60	0	40	2
10	CV205L	Basic Civil Engineering Laboratory	0	0	2	60	0	40	1
11	WS200L	Workshop Practices	0	0	4	60	0	40	2
		Total							25

Shivaji University, Kolhapur
Structure of Final Year Engineering (Revised)
 (To be implemented from Academic year 2016-17)
Automobile Engineering
Scheme of Teaching and Examination
Semester-VII

Sr.No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	T/W	OE	POE	Total
01	I.C. Engine Design	3	---	2	5	100	25	---	---	125
02	Vehicle Dynamics	3	---	2	5	100	25	---	---	125
03	Finite Element Analysis	3	---	2	5	100	25	25	---	150
04	Vehicle Maintenance	3	---	2	5	100	25	---	---	125
05	Elective-I	3	---	---	3	100	---	---	---	100
06	I.C.Engine Testing Lab	---	---	2	2	---	25	---	25	50
07	Automotive Industrial Training	---	---	---	---	---	25*	---	---	25
08	Project Phase-I	---	---	2	2	---	50	50	---	100
Total		15	---	12	27	500	200	75	25	800

* Assessment of Automotive Industrial Training will be carried out with Project Phase-I

Semester-VIII

Sr.No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	T/W	OE	POE	Total
01	Alternative Fuels and Emission	3	---	2	5	100	25	---	---	125
02	Automotive Electronics	3	---	2	5	100	25	---	---	125
03	Automotive System Design	3	---	2	5	100	25	25	---	150
04	Vehicle Performance and Testing	3	---	2	5	100	25	25	---	150
05	Elective-II	3	---	---	3	100	---	---	---	100
06	Project Phase-II	---	---	4	4	---	75	75	---	150
Total		15	---	12	27	500	175	125	---	800

Elective -I

1. Advanced Engine Technology
2. Computational Fluid Dynamics
3. Tribology
4. Optimizations Methods in Engineering Design
5. **Transport Management**

Elective-II

1. Automotive Noise, Vibration and Harshness (NVH)
2. Automotive Aerodynamics
3. Fuels, Combustion and Emission Control
4. Automotive Control Systems
5. **Energy Engineering**

30/
HEAD, DEPARTMENT OF
AUTOMOBILE ENGINEERING
 Sanjeevan Engg. & Tech. Institute
 Somwar Peth, Panhala - 416 201
 year: 2017-18

FINAL YEAR CIVIL ENGINEERING

SYLLABUS STRUCTURE

B. E. CIVIL ENGINEERING SEMESTER-VII

Sr. No.	Subject	Teaching scheme per week					Examination scheme				
		L	P	T	D	Total	Theory paper	TW	POE	OE	Total
1	Design of Concrete Structure -I	4	2	---	---	6	100	25	---	---	125
2	Earthquake Engineering	3	2	---	---	5	100	50	---	---	150
3	Quantity Surveying & Valuation	3	4	---	---	7	100	50	---	25	175
4	Project Management & Construction Equipments	3	2	---	---	5	100	25	---	25	150
5	Elective-I	3	2	---	---	5	100	25	---	---	125
6	Project	---	2	---	---	2	---	50	---	---	50
7	Report on Field Training #	---	---	---	---	---	---	25	---	---	25
Total		16	14	---	---	30	500	250	---	50	800

Assessment of Report on field training to be done by Project Guide along with Project Term Work Assessment Committee.

B. E. CIVIL ENGINEERING SEMESTER-VIII

Sr. No.	Subject	Teaching scheme per week					Examination scheme				
		L	P	T	D	Total	Theory paper	TW	POE	OE	Total
1	Design of Concrete Structure -II	4	2	---	---	6	100	25	---	---	125
2	Water Resources Engineering-II	3	2	---	---	5	100	25	---	25	150
3	Transportation Engineering-II	3	---	---	---	3	100	---	---	---	100
4	*Elective-II	3	---	---	---	3	100	---	---	---	100
5	**Elective-III	3	---	---	---	3	100	---	---	---	100
6	SDD-II	--	---	---	4	4	---	50	---	25	75
7	Project	--	6	---	---	6	---	75	75	---	150
Total		16	10	---	4	30	500	175	75	50	800

*Elective II from structure group

**Elective III from non-structure group

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FINAL YEAR CIVIL ENGINEERING

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SEMESTER VII

Course Code	Course	Teaching Scheme			Examination Scheme				
		L	P	T	Theory	TW	POE	OE	Total
CS7C01	Advanced Computer Architecture	4	-	1	100	25	-		125
CS7L02	Distributed Systems	3	2	-	100	25	-		125
CS7L03	Advanced Database Systems	3	2	-	100	25	-	50	175
CS7E04	Elective - I	3	-	1	100	25	-		125
CS7L05	Web Technologies - I	3	4	-	-	50	50		100
CS7L06	Project - I	-	4	-	-	75	-	75	150
	Total	16	12	2	400	225	50	125	800

SEMESTER VIII

Course Code	Course	Teaching Scheme			Examination Scheme				
		L	P	T	Theory	TW	POE	OE	Total
CS8C01	Data Analytics	4	2	-	100	25		50	175
CS8C02	Project Management	3	-	-	100	-		-	100
CS8C03	Real-time Operating System	4	-	1	100	25		-	125
CS8E04	Elective - II	3	-	1	100	25		-	125
CS8L05	Web Technologies - II	2	4	-	-	50	50	-	100
CS8L06	Project - II	-	4	-	-	75		75	150
CS8L07	Community Services	-	2	-	-	25		-	25
	Total	16	12	2	400	225	50	125	800

Elective - I

- A. Soft Computing
- B. Mobile Applications
- C. Adhoc Wireless Networks

Elective - II

- A. Internet of Things
- B. Software Testing and Quality Assurance
- C. Introduction to Mainframes

Academic Year 2017-18

Shivaji University, Kolhaour
Faculty of Engineering and Technology
Electrical Engineering
Structure for BE Electrical

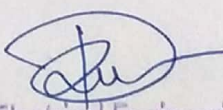
Semester VII

Sr. No	Category	Course Title	L	T	P	Contact Hours	Marks			
							Theory	T W	POE	Total
1	EE	Industrial Training		1		1		50		50
2	ES	Economics for Engineers	2			2	50			50
3	EE	Advanced Switchgear and Protection	4		2	6	100	25	50	175
4		Power Quality and Harmonics	3	1		4	100	25		125
5	EE	Computer Methods in Power Systems	4		2	6	100	25	25	150
6	EE	Elective I	4			4	100			100
7	EE	Seminar			2	2		50		50
8	EE	Project Phase I			4	4		50	50	100
			17	2	10	29	450	225	125	800

Elective I

1. FACTS

2. Signal Processing For Electrical Engg.
3. Industrial Automation and SCADA
4. Restructured Power Systems


(Head Electrical Engineering Dept.)
SANJEEVAN ENGINEERING AND
TECHNOLOGY INSTITUTE, PANHALA
Domwar Peth, Tal. Panhala, Dist. Kolhapur-416 201
MAHARASHTRA, INDIA.

Academic Year 2017-18

Semester VIII

Sr. No	Category	Course Title	L	T	P	Contact Hours	Marks			
							Theory	T W	POE	Total
1	ES	Law for Engineers	2			2	50			50
2	EE	HVDC Systems	4		2	6	100		50	150
3	EE	EHVAC	4			4	100			100
4	EE	Electrical Generation and Utilization	4	2		6	100	50		150
5	EE	Elective II	4		2	6	100	50		150
6	EE	Project Phase II			6	6		100	100	200
			18	2	10	30	450	200	150	800

Elective II

1. Embedded Systems

2. High Voltage Engineering

3. Advanced Relaying

4. Electrical maintenance and electrical energy audit.

(Head Electrical Engineering Dept.)
SANJEEVAN ENGINEERING AND
TECHNOLOGY INSTITUTE, PANHALA
Tomwar Peth, Tal. Panhala, Dist. Kolhapur-416 201
MAHARASHTRA, INDIA.

Academic Year 2017-2018

Shivaji University, Kolhapur
Revised Syllabus Structure of Final Year Engineering (BE) (w. e. f. July 2016)
Electronics and Telecommunication Engineering Course
Scheme of Teaching and Examination
Semester-VII

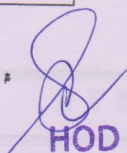
Sr. No.	Subject	Teaching Scheme (Hrs.)				Examination Scheme (Marks)				
		L	T	P	Total	Theory	TW	POE	OE	Total
1	Satellite Communication	3	1	--	4	100	25	--	--	125
2	Embedded System	4	--	2	6	100	25	50	--	175
3	Computer Communication Networks	4	--	2	6	100	25	--	25	150
4	RF & Microwave Engineering	4	-	2	6	100	25	--	--	125
5	Elective-I	3	1	--	4	100	25	--	--	125
6	Industrial Training	--	--	--	---	--	25*	--	--	25
7	Project Phase-I	--	--	2	2	--	25	--	50	75
		18	2	08	28	500	175	50	75	800

* Assessment will be carried out with Project Phase – I By Internal Guide.

Semester-VIII

Sr. No.	Subject	Teaching Scheme(Hrs.)				Examination Scheme(Marks)				
		L	T	P	Total	Theory	TW	POE	OE	Total
1	Video Engineering	4	--	2	6	100	25	50	--	175
2	Wireless Mobile Communication	4	--	2	6	100	25	--	--	125
3	Digital Image Processing	4	--	2	6	100	25	--	50	175
4	Elective-II	3	1	--	4	100	25	--	--	125
5	Project Phase – II	--	--	4	4	--	100	--	100	200
		15	01	10	26	400	200	50	150	800

BE Part-I (Elective-I)	BE Part-II (Elective-II)
1. Robotics	1. Mechatronics
2. Speech processing	2. Artificial Neural Network
3. MEMS	3. Remote Sensing & GPS
4. Radar & Navigation Aids	4. Operating System


HOD 1
 Electronics & Telecommunication Engg.
 Sanjeevan Engg. & Tech. Institute
 Samwar Peth, Panhala - 416 201

SHIVAJI UNIVERSITY, KOLHAPUR,

Structure of B.E. (MECHANICAL ENGINEERING) Semester VII

WITH EFFECT FROM THE ACADEMIC YEAR JUNE/JULY 2016-2017

Sr. No.	Course Title	Teaching Scheme				Examination Scheme				
		L	T	P	Total Hrs.	TP	TW	OE	POE	Total Marks
1	Refrigeration and Air Conditioning	3	-	2	5	100	25	-	25	150
2	Mechanical System Design	3	-	2	5	100	25	25	-	150
3	Finite Element Analysis	3	-	2	5	100	25	-	-	125
4	Elective I	3	-	2	5	100	25	-	-	125
5	Elective II	3	-	2	5	100	25	-	-	125
6	Industrial Training @	-	-	-	0	-	50	-	-	50
7	Project Phase -I	-	*1	2	2	-	50	25	-	75
Total		15	01	12	27	500	225	50	25	800

* The contact hours will be in the above proportion for faculty guiding more number of groups.

Sr. No.	Elective I	Elective II
1	Experimental Mechanics	Total Quality Management
2	Human and Professional Ethics	Industrial Product Design
3	Automobile Engineering	Advanced Forming Processes
4	Computational Fluid Dynamics	Design of Thermal Systems
5	Process Equipment Design	Smart Materials
6	Advanced Foundry Processes	Design for Sustainability
7	Introduction to Aircraft Systems	Flexible Manufacturing Systems

L: Lecture, T: Tutorial, P: Practical, TP: Theory Paper, TW: Term Work, OE: Oral Exam. , POE: Practical and Oral Exam.

@ Industrial training of minimum two (2) weeks should be done after T.E. (II) in summer vacation and it's assessment will be done in B.E. (I) based on report submitted Work load of the assessment can be assigned to the project seminar guide.

S. S. A. K.
HOD
Mechanical Engineering

Academic Year 2017-18

SHIVAJI UNIVERSITY, KOLHAPUR,

Structure of B.E. (MECHANICAL ENGINEERING) Semester VIII

WITH EFFECT FROM THE ACADEMIC YEAR JUNE/JULY 2016-2017

Sr. No.	Course Title	Teaching Scheme				Examination Scheme				
		L	T	P	Total Hrs.	TP	TW	OE	POE	Total Marks
1	Mechatronics	3	-	2	5	100	25	25	-	150
2	Energy and Power Engineering	3	-	2	5	100	25	-	-	125
3	Noise and Vibration	3	-	2	5	100	25	25	-	150
4	Elective III	3	-	2	5	100	25	-	-	125
5	Elective IV	3	-	2	5	100	25	-	-	125
6	Project Phase -II	-	*2	4	4	-	50	75	-	125
Total		15	02	14	29	500	175	125	00	800

* The contact hours will be in the above proportion for faculty guiding more number of groups.

Sr. No.	Elective III	Elective IV
1	Industrial Engineering	Industrial Automation and Robotics
2	Production Management	Cryogenics
3	Fracture Mechanics	Enterprise Resource Planning
4	Reliability Engineering	Micro Electro Mechanical Systems
5	Advanced I.C. Engine	Advanced Refrigeration
6	Machine Tool Design	Tribology
7	Design of Aircraft Systems	Precision Engineering

L: Lecture, T: Tutorial, P: Practical, TP: Theory Paper, TW: Term Work. OE: Oral Exam. , POE: Practical and Oral Exam.

[Signature]
28/12/16
HOD
Mechanical Engineering
Sri Jaykar Engg. & Tech Institute Panhala