

Rajgad Dnyanpeeth's

SHRI CHHATRAPATI SHIVAJIRAJE COLLEGE OF ENGINEERING

Gat No. 237, Pune Bangalore Highway, Dhangawadi, Tal – Bhor, Dist- Pune (Maharashtra)

Criterion1 – Curricular Aspects

Key Indicator – 1.3 Curriculum Enrichment

1.3.2. Number of courses that include experiential learning through project work/field work/internship during the year 2021-2022

Sr. No.	Program Title	Name of the Course that include experiential learning through project work/field work/internship	Course code	Year of offering	Department
1	Sponsored Project	Concrete Technology	201010	2021-22	
2	Sponsored Project	Quantity surveying, contracts and tenders	401008	2021-22	
3	Sponsored Project	Environmental Engineering II	401 001	2021-22	Civil Engineering
4	Sponsored Project	Concrete Technology	201010	2021-22	
5	Internship	Internship	301016	2021-22	
6	Sponsored Project	Design of Machine Elements	302043	2021-22	Mechanical
7	Sponsored Project	Composite Materials	302052-A	2021-22	Engineering
8	Internship	Internship	302055	2021-22	
9	Sponsored Project	Machine Learning	410250	2021-22	
10	Sponsored Project	Embedded & Real Time Operating System	410252	2021-22	Computer Engineering
11	Sponsored Project	Machine Learning	410250	2021-22	

12	Sponsored Project	Machine Learning	410250	2021-22	
13	Sponsored Project	Embedded & Real Time Operating System	410252	2021-22	
14	Sponsored Project	Machine Learning	410250	2021-22	
15	Internship	Internship	310255	2021-22	
16	Sponsored Project	Internet of Things	404184	2021-22	
17	Sponsored Project	Internet of Things	404184	2021-22	E&TC
18	Sponsored Project	Internet of Things	404184	2021-22	Engineering
19	Sponsored Project	Electronics Product Design	404185	2021-22	
20	Internship	Internship	304199	2021-22	

Principal Rajgad Dayanpeeth's Shri Chhatrapati Shivajiraje College of Enga Dhangawadi, Pune-412206





Savitribai Phule Pune University, Pune SE(Civil Engineering) 2019 Course

(With effect from Academic Year 2020-21)

			Semo	ster-l	IV				-			_	-	
Course Code	Course Name	5	eachin schem urs/W	e	Е	xamin	ation Ma		ne an	d		Cred	lit	
		Theory	Practical	Tutorial	IN-Sem	End-Sem	È	PR	OR	Total	TH	PR	TUT	Fotal.
201008	Geotechnical Engineering	03		-	30	70				100	03		-	03
201009	Survey	03			30	70				100	03	-	-	03
201010	Concrete Technology	03	-	-	30	70			-	100	03	-	-	03
201011	Structural Analysis	03	-		30	70		-	-	100	03	-		03
01012	Project management	03		-	30	70	**			100	03		-	03
01013	Geotechnical Engineering Lab	-	02	-	-	-	-	-	50	50	-	01	-	01
01014	Survey Lab	-	04	-	-		-	50	-	50		02		02
01015	Concrete Technology Lab		02	-		-	25		-	25		01	- 1	01
			-	01			25		-	25		-	01	01
201016	Structural Analysis Tutorial	**	-	VI	-	-			-	50	-	02	-	02
201017	Project Based Learning	-	04	-	-	-	50		-	9700		1		22
	Total	15	12	01	150	350	100	50	50	700	15	06	01	22

Abbreviations:

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

Note: The Underlined portion of the syllabus will be covered by video lectures/ on-line lectures/ flip

classroom, self study, NPTEL course lectures and/or using relevant ICT technique





SAVITRIBAL PHULE PUNE UNIVERSITY

Board of Studies in Civil Engineering Structure for B.E. Civil 2015 Course (w. c. f. June 2018)

					Sem	ester-f					
Subject code	Subject		ra/Wes		In-Semester Assessment	TW	Pract /Or	End- Semester	Total	Cri	edit
		Leet	Tu	Pr	1			Exam		Th	Lab
401 (901	Environmental Engineering II	3	-	2	30	-	50	70	150	3	ı
401002	Transportation Engineering	3	-	2	30	50	-	70	150	3	4
401 003	Structural Design and Drawing III	4	**	2)0		50	70	150	4	1
401 004	Elective 1	3	-	2	30	50	-	70	150	3	1
401 005	Elective II	3	-		30		-	70	100	3	-
401 006	Project (Phase-I)	-	2				50	-	50	**	2
	Total:	16	2	8	150	100	150	350	750	16	6
	2010/04/20			-	-		-		1	22 (Credit

					Sem	ester-II					
Subject	Subject		eaching Scheme Hrs/Week		In-Semester Assessment	TW	Or	End- Semester	Total	Cre	dit
		Lect	Tu	Pr				Exam		Th	Pr
401 007	Dams and Hydraulic Structures	3	-	2	30		50	70	150	3	1
401008	Quantity Surveying, Contracts and tenders	3		2	30	-	50	70	150	3	ı
401 009	Elective III	3	**	2	30	50	-	70	150	3	1
401 010	Elective IV	3	-	2	30	50		70	150	3	1
401 006	Project		6	-	-	50	100		150		6
	Total:	12	6/	ad Claya	poets 20	150	200	280	750	12	10
	MARKET STATES		Q.	DIE	1071 8g					22 C	redits

SAVITRIBAL PHULE PUNE UNIVERSITY

Board of Studies in Civil Engineering

Structure for B.E. Civil 2015 Course (w. c. f. June 2018)

					See	unter-f					
tubjeri redo	Bubliot		hing to tra/We		In-Semester Arrespond	TW	Pract	End- Semester	Total	Cr	edit
		Lect	Te	Pr				Enam		Th	Lab
401 001	Engineering II	,		2	30		90	10	110	3	1
	Engineering II				~	-	30		1000		
4011002	Transportation Engineering	,	-	1	10	50	-	70	150	3	1
MO1 (M03	Structural Design and Druwing III	4	++	3	10		540	70	150	4	1
101 004	Elective I	3	-	7	50	50	-	70	150	3	1
101 001	Elective II	1	_	-	10	_	-	70	100	3	-
01 006	Propert (Phase-I)		7	-		-	10	-	50	-	2
ATT DESIGN		16	3	-	150	100	150	350	750	16	6
	Total -	14	1	•	1.00	100				22 6	redit

Subject Subject	T				Sem	ester-II					
	Subject	10000	thing S		In-Semester Assessment	TW	Or	End- Semester	Total	Cre	
		Lect	Tu	Pr				Exam		Th	Pr
401.00?	Hydraulic 3 Structures	3	-	2	30	-	50	70	150	3	1
401008	Quantity Surveying, Contracts and tenders	3	-	2	30	-	50	70	150	3	1
01 009	Elective III	3	-	2	30	50	-	70	150	3	1
01 010	Elective IV	13		2	30	50		70	150	3	1
01 006	Project	-	6	_	_	50	100	**	150		6
	Total :	12	6	8	120	150 005300	200	280	750	12	10
		-	-			Outs	nem's			22 €	redit

Board of Studies (Civil Engineering)

Syllabus for B. E.

w.e.f. 2018

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Savitribai Phule Pune University, Pune SE(Civil Engineering) 2019 Course

(With effect from Academic Year 2020-21)

Sen		to t	- 1	nv.
200	ics	ec:	-	

				Seme	ester-	11										
Course Code	Course Name	5	eachi schem urs/W	e	ŀ	Exami		Sche irks	me a	nd		Credit				
		Theory	Practical	Tutorial	IN-Sem	End-Sem	TW	PR	OR	Total	Ξ	PR	TUT	Total		
201008	Geotechnical Engineering	03			30	70		1	-	100	03			03		
27.127.200.023		03	-		30	70				100	03	-	*	03		
201009	Survey				30	70		-		100	03	-	-	03		
201010	Concrete Technology	03		•		11.7%				100	03	-	-	03		
201011	Structural Analysis	03	-		30	70	175	0	•	100	0.5					
201012	D. /	03		-	30	70				100	03		-	03		
201012	Project management				-	-		-	50	50	-	01	-	01		
201013	Geotechnical Engineering Lab	-	02	-	-			50		50		02		02		
201014	Survey Lab	-	04	-		•	25	30	-	25	-	01	-	01		
201015	Concrete Technology Lab	-	02	-	-		25						01	01		
201016	Structural Analysis Tutorial		-	01		**	25	-	*	25		-	01			
	Project Based Learning		04	-	-	-	50		-	50	35	02	-	02		
201017		15	12	01	150	350	100	50	50	700	15	06	01	22		
	Total	13	12	01	100	2000	5.000		1078		1010	1				

Abbreviations:

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classroom, self study, NPTEL course lectures and/or using relevant ICT technique





					S	EME	STE	R-11	1									
Course Code	Course Name	S	eschi schem ws/W	ie	1	2xam		n Se Iark	chemi is	e and	Credit							
		Theory	Practical	Tutorial	IN-Sem	End-Sem	WI	PR	OR	Total	TH	ř	PR	OR	TUT	Total		
301012	Waste Water Engineering	03	-	4	30	70	-		**	100	0.3	-	-		-	03		
301013	Design of RC Structures	03	-		30	70	-		-	100	03	-	-		-	03		
501014	Remote Sensing and GIS	03		-	30	70	_	_		100	03	-			-	03		
01015	Elective II	03	-		30	70		-	-	100	0.3		_			03		
301016	Internship	-	-			_	100			100	-	(14		-		04		
			02			-		-	50	50				01	-	01		
01017	Waste Water Engineering Lab	-	-	"					50	5()			-	02	_	02		
801018	Design of RC Structures Lab	-	04						30			-01		2.0		10		
01019	Remote Sensing and GIS Lab	-	02	-	-	-	50	-	-	50	-01	01	94	-	-			
01020	Elective II Lab	-	02				50		-	5/1	4.0	01		-	-	01		
01021	Audit Course II: Leadership and Personality Development Industrial Safety	-		01		GR	-	-	14	GR			**	03		21		
	Total	12	10	01	120	280	200		100	700	12	06		11.5		41		

Elective II: 301015

SN	Course Code	Course Name
01	301015 a	Advanced Engineering Geology with Rock Mechanics
02	301015 b	Soft Computing Techniques
03	301015 e	Advanced Surveying
04	301015 d	Advanced Gentechnical Engineering
05	301015 e	Architecture and Town Planning
06	301015 f	Solid Waste Management





Savitribai Phule Pune University Board of Studies - Automobile and Mechanical Engineering

Undergraduate Program - Mechanical Engineering (2019 pattern)

Course	Course Name	Bi	ach her	ne	and Marks						Credit			
Code		TH	FR	TIL	ISE	ESE	E	PR	OR	Total	E	PR		10030
	Nemes	ter-	DE:		115.00	100	8011						O.	35
302041 N	Sumerical & Statistical Methods	1		1	10	741	25			125	11	. 1	11	4
	leat & Mass Transfer	1	>		111	70		50		150	1	1	-	4
102043 1	Design of Machine Elements	1	2		10	70	- 1		15	125	1	1		4
	Aechatronics	1	1		10	70		- 1	25	125	1	11	- 1	.1
102045 1	lective I	1			101	70				100	1		- 1	1
102046 D	rigital Manufacturing Laboratory		2				50			50		11		1
102047 S	kall Development)				25			25		1	- 1	1
	sudit course - V ⁴	1											.	
	Total	15	10	1	150	350	100	50	50	700	15	5		71
	Semest	er-\	/1	arranta pro-	#HUNCHON	epico yea	- CONTRACTOR	I CONTRACTOR OF					-	muta
302049 A	rtificial Intelligence & Machine Learning	1	2	-	30	70		1,000	25	125	1	1	-	4
302050 C	omputer Aided Engineering	1	2		30	70		50	102	150	3	1	-	4
	lesign of Transmission Systems	1	2		10	70	3	-	25	125	3	1	-	4
102052 1	lective II	3	-		30	70	-		-	100	1			3
302053 M	leasurement Laboratory	20	2	20			50			50		1		1
	luid Power & Control Laboratory	1 -	2		1 .		50		-	50	1	1	-	1
	ternship/Mini project *	+	4	-			100	-	-	100		4	1.	4
	udit course - VI	1			1 -				1	1			1.	1.
	Total	12	14		120	280	200	50	50	700	12	9		2
	Elective-I						100	Recipent	ive-	A Principles	danne	-		A COL
302045-A	Advanced Forming & Joining Proces	ses	30	205	2-A	. 1	Com	posi	te N	later	inls			
302045-B	Machining Science & Technology			1205			Surfi							

Abbreviations: TH: Theory, PR. Practical, TUT: Tutorial, ISE: In-Semester Exam, ESE: End-Semester Exam, TW: Term Work, OR: Oral

Note: Interested students of TE (Automobile Engineering and Mechanical Engineering) can opt for any one of the audit course from the list of audit courses prescribed by BOS (Automobile and Mechanical Engineering)

Instructions:

- Practical/Tutorial must be conducted in FOUR batches per division only.
- Minimum number of Experiments/Assignments in PR/Tutorial shall be carried out as mentioned in the syllabi of respective courses.
- Assessment of tutorial work has to be carried out similar to term-work. The Grade cum marks for Tutorial and Term-work shall be awarded on the basis of continuous evaluation.
- Audit course is mandatory but non-credit course. Examination has to be conducted at the end of
 Semesters for award of grade at institute the conducted at the end of
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Savitribai Phule Pune University

Board of Studies - Automobile and Mechanical Engineering Undergraduate Program - Mechanical Engineering (2019 pattern)

Course	Course Name	Se	ach her	ne	E	namonavani	nationd N	SADANIA		me	(Cre	dit	
Code		ТН	PR	TUL	ISE	ESE	TW	PR	OR	Total	H	PR	TUL	Total
	Semes	ter-	V	10									100	
302041	Numerical & Statistical Methods	3	-	1	30	70	25		-	125	3	-	1	4
302042	Heat & Mass Transfer	3	2	-	30	70	-	50		150	3	1		4
302043	Design of Machine Elements	3	2	-	30	70	-		25	125	3	1		4
302044	Mechatronics	3	2	-	30	70	-	-	25	125	3	1	-	4
302045	Elective I	3	-	-	30	70	-	-		100	3	-	-	3
302046	Digital Manufacturing Laboratory	-	2			-	50			50		1	-	1
302047	Skill Development	1.	2		-	-	25	-	-	25	-	1		1
302048	Audit course - V5	1-		-		-			-		-	-		1
	Total	15	10	1	150	350	100	50	50	700	15	5	1	21
	Semes	ter-	/I		hindur	A. Carrier Street					-	-	-	-
302049	Artificial Intelligence & Machine Learning	3	2		30	70	-2	-	25	125	3	1		4
302050	Computer Aided Engineering	3	2	-	30	70	-	50	-	150	3	1	1.	4
302051	Design of Transmission Systems	3	2	-	30	70	-		25	125	3	1	-	4
Section 2012	Elective II	3	-		30	70			-	100	-		1.	3
302053	Measurement Laboratory	-	2	-	-	-	50		-	50	-	1	-	1
302054	Fluid Power &Control Laboratory	-	2			-	50	-	-	50	1-	1	١.	1
302055	Internship/Mini project *	-	4	-	-	-	100	-		100	-	4	-	1
	Audit course - VI ³	-	-	-	1.	-				100	-	-	1.	+
	Total	12	14	1129	120	280	200	50	50	700	177	2 9	-	-
	Elective-I	17000		1000000					ive-		A E.S.		2 160	12
302045	 A Advanced Forming & Joining Proce 	SSCS	31	020	52-4	1				later	inle			
302045	Tour Tour			-	52-F		Surfa							

Abbreviations: TH: Theory, PR: Practical, TUT: Tutorial, ISE: In-Semester Exam, ESE: End-Semester Exam, TW: Term Work, OR: Oral

Note: Interested students of TE (Automobile Engineering and Mechanical Engineering) can opt for any one of the audit course from the list of audit courses prescribed by BOS (Automobile and Mechanical Engineering)

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- SAudit course is mandatory but non-credit warsen xamination has to be conducted at the end of calculated for grade point & CGPA.

Savitribai Phule Pune University Board of Studies - Automobile and Mechanical Engineering Undergraduate Program - Mechanical Engineering (2019 pattern)

Course		S	ach her	ne	Ex		natio			me	-	Cre	dit	
Code	Course Name	TH	PR	TUT	ISE	ESE	T.W	PR	OR	Total	TH	PR	12	Total
	Seme	ster-	V	13371		11000								
302041	Numerical & Statistical Methods	1		1	30	70	25	-	- 1	125	3		. 1	4
Andrew Street,	Heat & Mass Transfer	3	2	-	30	70	4	50	-	150	.5			4
A CONTRACTOR OF THE PARTY.	Design of Machine Elements	3	2	-	30	70	-	-	25	125	3			
THE RESERVE	Mechatronics	3	2	-	30	70		-	25	125	1	1	-	4
AND RESIDENCE AND RESIDENCE.	Elective I	3		-	30	70	-		-	100	4			-
THE RESERVE OF THE PARTY OF THE	Digital Manufacturing Laboratory	-	2		,	-	50		-	50	-	1		1
	Skill Development		2	-	-	-	25	-	-	25	-	1		1
302048	Audit course - V ^S	-			-		+			-	-	-		-
1050100	Total	15	10	1	150	350	100	50	50	700	15	5	19.3	21
	Seme	ter-	VI	20								T	+	١.
302049	Artificial Intelligence & Machine Learning	1	2		30	70	-		25	125	1	!	+:	4
302050	Computer Aided Engineering	3	2	-	30	70		50	-	150		1	*	4
302051	Design of Transmission Systems	3	2		30	70			25	125	3	1	-	4
	Elective II	3	-	-	30	70	-		-	100	3	1:		3
	Measurement Laboratory	-	2	-	-	-	50	٠	-	50		!	+-	+ :
302054	Fluid Power &Control Laboratory	-	2				50	-	-	50		1	-	+
	Internship/Mini project *	-	4		-	-	100	-		100	-	4	-	4
302056	Audit course - VI ³	-			-	-	-	-	-		-	-	-	-
100000	Total	12	14		120	1280	200	_	ALCOHOL: N	-		9	2 10	2
	Elective-I							4	ive-					
302045		esses	3	020	52-/					later				
302045			13	020	52-E	3 3	Surfa	ice l	Engi	neer	ing			

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- Saudit course is mandatory but non-credit course. Examination has to be conducted at the end of Semesters for award of grade at institute level. Grade awarded for audit course shall not be calculated for grade point & CGPA.

SPPU-4071 Dhangareadi Pune 2 | Page





Semester II

Code	Course	Sel	ching neme	Ex	aminati	on Set	ете	and Ma	rks	(re	
		A CONTRACTOR OF THE PARTY OF TH	Practical	In- Sem	End- Sem	TW	PR	OR/ *PRE	Tetal	TH/ TUT	PR
410250	Machine Learning	0.3	_	30	70	_		-	100	03	-
410251	Information and Cyber	03	-	30	70	-	-	-	100	03	-
410252	Security Elective III	03		30	70	**		_	100	03	-
24.4	Elective IV	03		30	70	-	_		100	03	-
	Laboratory Practice III	-	04	_	_	50	50	-	100		02
	Laboratory Practice IV	-	04	-	_	50		•50	100	-	02
N. S. T. C. S. C.	Project Work Stage II	-	06		_	100	_	*50	150		06
410250	FIORCA WORK ORIGINA							Total	Credit		
	Total	12	14	120	280	200	50	100	750	2	2
4102 57	Audit Course 6									Gra	ide
	Elective	ш						Elective	IV		
410252	(A) Advanced Digital S	ignal Pro	cessing		41025	3 (A) §	oftw	are Defin	ned Netv	vorks	
	(B) Compilers				41025	3 (B) }	Tumai	n Comp	uter Inte	rface	
410252	(C) Embedded and Real	Time O	perating Sy	stem	41025	3 (C) (loud	Compu	ting		
410252	(D) Soft Computing and	Optimiz	ation Algo	rithms	41025	3 (D) (Open	Elective			

410259-Audit Course 6 (AC6) Options:

AC6-II: Business Intelligence AC6-IV: Usability Engineering
AC6-II: Gamification AC6-V: Conversational Interfaces
AC6-III: Quantum Computing AC6-VI: MOOC- Learn New Skills

Abbreviations:

TW: Term Work TH: Theory OR: Oral PR: Practical

Sem: Semester PRE: Project/ Mini-Project Presentation





Semester II

		and the same of th								
Course			Ex	aminati	an Sch	eme i	and Mar	Kn.	Cred	lit
			In-	End-	TW	PR	OR/	Total	TH/ TUT	PR
Machine Lauraina	03	**	30	70	***	**	**	100	03	2.0
	03		30	70	-	-	**	100	03	***
Security			3.0	20			-	100	03	
Elective III	03	**					**	100	03	**
Elective IV	935553	04	30		50	50	***	100		02
				**	50	-	*50	100	WW.	02
		06		**	100	**	*50	150		06
Total	12	14	120	280	200	50	Total 100	Credit 750	2	2
Audit Course 6 Elective	ш						Elective	iv	31	
		cessing								
(B) Compilers									rface	
(C) Embedded and Rea	l Time O	perating S	ystem	41025	3 (C)	Clouc	Compu	ung		
				1			Elective			
	Machine Learning Information and Cyber Security Elective III Elective IV Laboratory Practice III Laboratory Practice IV Project Work Stage II Total Audit Course 6 Elective (A) Advanced Digital S (B) Compilers	Machine Learning Information and Cyber Security Elective III Elective IV Laboratory Practice III Laboratory Practice IV Project Work Stage II Total Audit Course 6 Elective III (A) Advanced Digital Signal Pro (B) Compilers	Machine Learning Information and Cyber 03 Security Elective III 03 Laboratory Practice III 04 Laboratory Practice IV 04 Project Work Stage II 06 Total 12 14 Audit Course 6 Elective III (A) Advanced Digital Signal Processing (B) Compilers	Nachine Learning	Teaching Scheme Hours Week Theory Practical In- Sem Sem Sem PRE TUT					

410259-Audit Course 6 (AC6) Options:

AC6-II: Business Intelligence AC6-IV: Usability Engineering
AC6-II: Gamification AC6-VI: Conversational Interfaces
AC6-III: Quantum Computing AC6-VI: MOOC-Learn New Skills

Abbreviations:

TW: Term Work TH: Theory OR: Oral PR: Practical

Sem: Semester PRE: Project/ Mini-Project Presentation

Syllabus for Fourth Year of Computer Engineering

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SPPU:4071 Ohanganodi Pulis



Semester II

Course	Course	Sch	ching	Ex	aminati	on Sel	eme	and Ma	rks	Cree	fiit
Cim		Hours	/ Week Practical	In- Sem	End- Sem	TW	PR	OR/	Total	TH	PR
	Machine Learning	. 03		30	70			-	100	03	-
100000000000000000000000000000000000000	Information and Cyber	03	**	30	70		-		100	03	-
410251	Security Elective III	03		30	70	-		-	100	03	**
	A CONTRACTOR OF THE PARTY OF TH	03	_	30	70				100	0.3	
410253			04	**		50	50	-	100	**	02
	Laboratory Practice III		04			50	47	*50	100	**	02
	Laboratory Practice IV		06		-	100		*50	150		06
410256	Project Work Stage II	_ =	00	-		-		Total	Credit	12	10
	Total	12	14	120	280	200	50	100	750	2	2
	10 1000									Gra	ade
4102	Audit Course 6										
57	Elective	1111						Elective	IV		
410252	(A) Advanced Digital S	ignal Pro	cessing		41025	3 (A)	Softw	are Defi	ned Net	works	
410252	(B) Compilers				41025	3 (B) j	luma	n Comp	uter Inte	rface	
410252	(C) Embedded and Rea	1 Time O	perating Sy	vstem	41025	3 (C)	Cloud	Compu	ting		
410252	(D) Soft Computing and	d Optimiz	zation Algo	orithms	41025	3 (D)	Open	Elective			

410259-Audit Course 6 (AC6) Options:

AC6-II: Business Intelligence AC6-IV: Usability Engineering
AC6-III: Quantum Computing AC6-VI: MOOC-Learn New Skills

Abbreviations:

TW: Term Work TH: Theory OR: Oral PR: Practical

Sem: Semester PRE: Project/ Mini-Project Presentation

Syllabus for Fourth Year of Computer Engineering



Semester II

Course Code	Course	Sel	ching teme	E	vaminati	ion Scl	heme	and Ma	rks	Cre	dit
		Theory	and the second second	In- Sem	End- Sem	TW	PR	OR/ *PRE	Total	TH/ TUT	PR
410250	Machine Learning	03		30	70		**		100	03	-
410251	Information and Cyber Security	03		30	70	-	**		100	03	-
410252	Elective III	03	**	30	70		-		100	03	**
	Elective IV	03	**	30	70				100	03	++
410254	Laboratory Practice III	-	04			50	50		100		02
410255	Laboratory Practice IV		04			50		*50	100	**	02
	Project Work Stage II		06	**		100		*50	150		06
410200	Tropert trongers							Total	Credit	12	10
	Total	12	14	120	280	200	50	100	750	22	2
4102 57	Audit Course 6								1000	Gra	de
	Elective	Ш					1	Elective	IV		
410252	(A) Advanced Digital S	ignal Proc	cessing						ed Netw		
410252	(B) Compilers				410253	(B) <u>H</u>	umar	Compu	iter Inter	tacc	
410252	(C) Embedded and Real	Time Op	erating Sy	stem	410253	(C) <u>C</u>	loud	Comput	ing		
410757	(D) Soft Computing and	Optimiza	ation Algo	rithms	410253	(D) Q	pen I	lective			

410259-Audit Course 6 (AC6) Options:

AC6-I: Business Intelligence AC6-IV: Usability Engineering
AC6-II: Gamification AC6-V: Conversational Interfaces
AC6-III: Quantum Computing AC6-VI: MOOC-Learn New Skills

Abbreviations:

TW: Term Work TH: Theory OR: Oral PR: Practical

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Syllabus for Fourth Year of Computer Engineering

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Semester II

			Seme	ster i	<u>.</u>			122	-1:	Cres	111
Code	Contro	Sel	ching reme 7 Week Practical	In-	End- Sem	TW	PR	OR/	Total	TH/ TUT	PR
	Machine Learning	03	**	30 30	70 70	-			100	03 03	-
	Information and Cyber Security Elective III	03		30	70 70				100	03 03	02
410254	Elective IV Laboratory Practice III Laboratory Practice IV	03	04	-	-	50 50	50	+50 +50	100 100 150	-	02
410256	Project Work Stage II Total	12	06	120	280	200	50	Total 100	Credit 750	12 22 Gra	
4102 57	Audit Course 6 Elective	111			1			Elective			
410252 ((A) Advanced Digital Si (B) Compilers				410253	3 (B) <u>H</u>	lumar	Comp	ned Netw uter Inter		
410252 (C) Embedded and Real D) Soft Computing and	Time Op	erating Sy ation Algor	stem rithms				Comput Elective			

410259-Audit Course 6 (AC6) Options:

AC6-II: Business Intelligence
AC6-II: Gamification
AC6-III: Quantum Computing
AC6-VI: Usability Engineering
AC6-V: Conversational Interfaces
AC6-VI: MOOC-Learn New Skills

Abbreviations:

TW: Term Work TH: Theory OR: Oral PR: Practical

Sem: Semester PRE: Project/ Mini-Project Presentation

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Syllabus for Fourth Year of Computer Engineering

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Semester II

			Seme	ster I							
Course Code	Course		ching	Ex	aminəti	un Sch	eme	and Mar	iko.	Cret	Sist
Cour			Week Practical	In- Sem	End- Sem	1.//	PH	OR.	Total	TH TUT	PK
410250	Machine Learning	03	-	30	70	**			100	03	_
410251	Information and Cyber	03		30	70	-	-	-	100		
	Security Elective III	03	-	30	70	-	-		100	03	-
410253	Elective IV	03		30	70	50	50	-	100	-	02 02
	Laboratory Practice III	-	04	_	-	50	-	•50	150	_	06
	Project Work Stage II	-	06			100	-	*50 Total	Credit	12	1 1
	Total	12	14	120	280	200	50	100	750		ade
4102	Audit Course 6								2225		
57								Elective	IV		
410252	Elective (A) Advanced Digital S		ecessing					are Defin			
410252	(B) Compilers (C) Embedded and Real	Time O	perating Sy	ystem				Compu			
410252	(C) Embedded and recurrence (D) Soft Computing and	Optimi	zation Algo	orithms	41025	3 (D)	Open	Elective			

410259-Audit Course 6 (AC6) Options:

AC6-IV: Usability Engineering

AC6-IV: Usability Engineering

AC6-IV: Onversational Interfaces

AC6-II: Gamification

AC6-III: Quantum Computing

Abbreviations:

TW: Term Work TH: Theory OR: Oral PR: Practical

Sem: Semester PRE: Project/ Mini-Project Presentation

Syllabus for Fourth Year of Computer Engineering

05/87

Savitribai Phule Pune University Third Year of Computer Engineering (2019 Course) (With effect from Academic Year 2021-22)

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(With effect from Academic Year 2018-19)

Semester I

		Teachi	ng Sa	heme	Sem	ester I	M	natio arks	n Sch	eme of	Cri	edits
Code	Course	Theor		Pract	In- Sem	End- Sem	TW	PR	OR	Total	TH/TW	PR+OR
404181	VLSI Design& Technology	3	-	-	30	70	-	-	-	100	3	-
404182	Computer Networks & Security	4	-	-	30	70		-	-	100	4	
4041 H3	Radiation & Microwave	3	-	-	30	70	-	-	-	100	3	
	Techniques	3	_		30	70	_	-	-	100	3	
404184			_	-	30	70	-		_	100	3	
4041K5	Elective II	3			30	70						
404186	Lab Practice -I (CNS+ RMT)	-	-	4		-	50	-	50	100	-	2
404187	Lab Practice -II	-	-	4		-	50	50		100		2
		-	2		-	-	-	-	50	50		2
404188		_	_	-	-			-	-	-		
	Audit Course 5				1.70	350	100	50	100	750	16	6
	Total	16	2	8	150	330	100	20	,,,,	11.53		
				l Cred							-	22

Elective I

1 Digital Image and Video

Processing

- 2. Industrial Drives and Control
- 3. Embedded Systems & RTOS
- 4. Internet of Things

Elective II

- 1. Wavelets
- 2 Electronics Product Design
- 3. Optimization Techniques
- 4 Artificial Intelligence
- 5. Electronics in agriculture

Audit Course 5

- 1. Green Energy
- 2. Human Behaviour





(With effect from Academic Year 2018-19)

					semest							
Course		Teachi Hou			Sem	ester F		natio irks	n Sch	eme of	Cre	edits
Code	Course	Theor	Tut	Pract	In- Sem	End- Sem	TW	PR	OR	Total	TH/TW	PR+OR
404181	VLS1 Design& Technology	3		-	30	70		-	**	100	3	-
404182	Computer Networks & Security	4			30	70	-		and I	100	4	
404183	Radiation & Microwave Techniques	3	-		30	70	-		-	100	3	
404184	Elective I	3	-	-	30	70			-	100	3	
404185	Elective II	3			30	70		-		100	3	
404186	Lab Practice -I (CNS+ RMT)	-		4			50	-	50	100	-	2
404187	Lab Practice -II (VLSI + Elective I)		-	4	-		50	50		100		2
404188	Project Stage I	-	2				-		50	50		2
	Audit Course 5		-							**		
	Tota	16	2	8	150	350	100	50	100	750	16	6
			Tots	d Cred	its				1			22

March 1	47.	- 1
100	octive.	э I
20.00	CCMT	

1 Digital Image and Video

Processing

- 2. Industrial Drives and Control
- Embedded Systems & RTOS
- 4. Internet of Things

Elective II

- 1. Wavelets
- 2. Electronics Product Design
- 3. Optimization Techniques
- 4. Artificial Intelligence
- 5. Electronics in agriculture anpeer

Audit Course 5

- 1. Green Energy
- 2. Human Behaviour

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(With effect from Academic Year 2018-19)

					Semes	ter I						
Course	Course	Teaching Scheme Hours / Week			Sem	ester l	Credits					
Code	Course	Theor y	Tut	Pract	In- Sem	End- Sem	TW	PR	OR	Total	TH/TW	PR+OI
404181	VLSI Design& Technology	3	==	-	30	70			-	100	3	-
404182	Computer Networks & Security	4	**		30	70		-		100	4	-
404183	Radiation & Microwave Techniques	3			30	70	-			100	3	
404184	Elective I	3			30	70				100	3	-
404185	Elective II	3			30	70	**	-	-	100	3	***
404186	Lab Practice -I (CNS+ RMT)	-	_	4	**	-	50		50	100	-	2
404187	Lab Practice -II (VLSI + Elective I)	-		4		-	50	50		100		2
404188	Project Stage I		2			248	- :	**	50	50	-	2
	Audit Course 5		-	V. 77.					**			
	Total	16	2	8	150	350	100	50	100	750	16	6
			Total	Credi	ts						2	2

Elective I		The seconds we
1 Digital Image and Video	Elective II	Audit Course 5
Processing	1. Wavelets	1. Green Energy
2. Industrial Drives and Control	2. Electronics Product Design	2. Human Behaviour

Embedded Systems & RTOS
 Optimization Techniques
 Artificial Intelligence

5. Electronics in agriculture

Carolina Control



(With effect from Academic Year 2018-19)

				semes	ter 1						
				Sem	ester E	Nami Ma	Credits				
Course		Tut	Pract	In- Sem	End- Sem	TW	PR	OR	Total	TH/TW	PR+OR
VLSI Design& Technology	3	**	-	30	70			-	100	3	
Computer Networks & Security	4	-	-	30	70				100	4	
Radiation & Microwave Techniques	3			30	70			-	100	3	-
100 mm	3	-		30	70	**		-	100		-
	3		-	30	70	**			100	3	
Lab Practice -1		-	4		-	50		50	100		2
Lab Practice -II (VLSI + Elective I)	-		4			50	50		100	-	2
***************************************	-	2		-		-		50	50	**	2
Carried State of the Carried S	16	2	8	150	350	100	50	100	750	16	6
		Total	Cred	ite			_	1			22
	VLSI Design& Technology Computer Networks & Security Radiation & Microwave Techniques Elective I Elective II Lab Practice -I (CNS+ RMT) Lab Practice -II (VLSI + Elective I) Project Stage I Audit Course 5	Course Theor y VLSI Design& Technology Computer Networks & Security Radiation & Microwave Techniques Elective I 3 Elective II 3 Lab Practice -I (CNS+ RMT) Lab Practice -II (VLSI + Elective I) Project Stage I - Audit Course 5	Course Theor Tut y VLSI Design& 3 Technology Computer Networks & 4 & Security Radiation & Microwave 3 Techniques Elective I 3 Elective II 3 (CNS+ RMT) Lab Practice -I (CNS+ RMT) Lab Practice -II (VLSI + Elective I) Project Stage I 2 Audit Course 5 Total 16 2	Teaching Scheme Hours / Week	Teaching Scheme Sem Hours / Week Theor Tut Pract Insem YUSI Design& 3 30	Course	Teaching Scheme Hours / Week Week Min Min	Teaching Scheme Hours / Week	Course	Course	Course Teaching Scheme Hours / Week Semester Examination Scheme of Marks Crown

Elective I

1 Digital Image and Video

Processing

- 2. Industrial Drives and Control
- 3. Embedded Systems & RTOS
- 4. Internet of Things

Elective II

- 1. Wavelets
- 2. Electronics Product Design
- 3. Optimization Techniques
- 4. Artificial Intelligence
- 5. Electronics in agriculture

Audit Course 5

- 1. Green Energy
- 2. Human Behaviour



2



Savitribai Phule Pune University, Pune T.E. (Electronics& Telecommunication Engineering) 2019 Course (With effect from Academic Year 2021-22)

				Seme	ster-	VI								
Course Code			Teaching Scheme (Hours/Week)			xami		n Sch larks	Credit					
	Course Name	Theory	Practical	Tutorial	In-Sem	End-Sem	TW	PR	OR	Total	TH	PR	TUT	Total
304192	Cellular Networks	03	-		30	70	-		-	100	03	+	-	03
304193	Project Management	03	-	-	30	70	-	-	-	100	03	-	-	03
304194	Power Devices & Circuits	03	-	-	30	70	-	-		100	03	-		03
4195	Elective-II	03	-	-	30	70	-	-	-	100	03	-	-	03
304196	Cellular Networks Lab	-	02	-		-	-		50	50	-	01	-	01
304197	Power Devices & Circuits		02		-	•	-	50	-	50		01		01
304198	Lab Elective-II Lab		02	-	-	-	-	25		25	-	01	-	01
304199	Internship**	-	-		-	- 3	100		-	100	-	-	04	04
304200	Mini Project	-	04		-	-	25	-	50	75	2	02	-	02
And the second second	Mandatory Audit Course 6 *	-	-	-			-	-	-	-	-	-	-	-
	Total		10	00	120	280	125	75	100	700				

Abbreviations:

In-Sem: In semester

End-Sem: End semester

TH: Theory

Total Credit

TW Term Work

05

21

PR: Practical

OR: Oral

TUT: Tutocial

Note: Students of T.E. (Electronics & Telecommunications) have to opt any one of the audit course from the list of audit courses prescribed by BoS (Electronics & Telecommunications Engineering)

Elective -II

- 1) Digital Image Processing
- 2) Sensors in Automation
- 3) Advanced JAVA Programming
- 4) Embedded Processors
- 5) Network Security

