) FE_R2019

University of Mumbai As per AAV letter 116

First Year Engineering New Syllabus -R-2019 Semester I & II



dented 20th Aug. 2019 Frost-Year Semester I & I

No. UG/ 65 of 2019-20

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges, Directors of the recognized Institutions in Science & Technology Faculty is invited to this office Circular No. UG/131 of 2016-17 dated 9th November, 2016 relating to the revised syllabus as per (CBCS) for Bachelor of Engineering (First Year Engineering (Sem. I to II).

They are hereby informed that the recommendations made by the faculty members of Engineering at its meeting held on 8th May,2019 have been accepted by the Academic Council at its meeting held on 26th July, 2019 vide item No. 4.40 and that in accordance therewith, the Revised Syllabus and Scheme for 2019 of First Year Engineering (Sem. I & II) as per AICTE model curriculum from the academic year 2019-20. (The same is available on the University's website www.mu.ac.in). Nom2

MUMBAI - 400 032 14th August, 2019 To

(Dr. Ajay Deshmukh) REGISTRAR

The Principals of the affiliated Colleges, and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/4.40/26/07/2019

No. UG/65 - A of 2019-20 MUMBAI-400 032 14th August, 2019

in mi

Copy forwarded with Compliments for information to:-

1) The I/c Dean, Faculty of Science & Technology,

2) The Director, Board of Examinations and Evaluation,

3) The Director, Board of Students Development,

5) The Co-ordinator, University Computerization Centre,

(Dr. Ajay Deshmukh) REGISTRAR



AC: Item No. 4.40 **Date: 26TH July, 2019**

UNIVERSITY OF MUMBAI



Bachelor of Engineering

First Year Engineering (Semester I & II), Revised course

(REV- 2019'C' Scheme) from Academic Year 2019 - 20

(Common for All Branches of Engineering)

Under

FACULTY OF SCIENCE & TECHNOLOGY

(As per AICTE guidelines with effect from the academic year 2019-2020)

St. Francis Institute

Of Technology (Engg-Coilege)

Borivli (West), Mumbai - 400 103.
University of Mumbai, First Year Engineering, (Common for all Branches of Engineering) REV2019 'C' Scheme



Program Structure for First Year Engineering Semester I & II UNIVERSITY OF MUMBAI

(With Effect from 2019-2020)

Semester I

Course Code	Course Name		aching S Contact H				Credits As	ssigned	
Code		Theory	Prac	t. T	ut. T	heory	Pract.	Tut.	Total
FEC101	Engineering Mathematics-I	3	-	1	*	3	p a	1	4
FEC102	Engineering Physics-I	2			-	2			2
FEC103	Engineering Chemistry-I	2	-		-	2			2
FEC104	Engineering Mechanics	3			-	3	-		3
FEC105	Basic Electrical Engineering	3			-	3	-		3
FEL101	Engineering Physics-I		1				0.5		0.5
FEL102	Engineering Chemistry-I		1			6	0.5		0.5
FEL103	Engineering Mechanics		2		-		1		1
FEL104	Basic Electrical Engineering		2		- = -		1 2 16		1
FEL105	Basic Workshop practice-I	1 2 h	2		-0		1		1
	Total	13	08	0	1	13	04	01	18
			1041		Examina	tion Sche	me		
			immi.	Theor	y		M. Paraman		
Course Code	Course Name	Intern	al Assess	ment	End	Exam.	Term	Pract.	-
Couc		Test1	Test 2	Avg.	Sem. Exam.	Duratio (in Hrs	333	/oral	Total
FEC101	Engineering Mathematics-I	20	20	20	80	3	25	-	125
FEC102	Engineering Physics-I	15	15	15	60	2	1-112-		75
FEC103	Engineering Chemistry-I	15	15	15	60	2			75
FEC104	Engineering Mechanics	20	20	20	80	3	2122 101		100
FEC105	Basic Electrical Engineering	20	20	20	80	3	100 <u>a</u> (10		100
FEL101	Engineering Physics-I						25		25
FEL102	Engineering Chemistry-I						25		25
FEL103	Engineering Mechanics						25	25	50
FEL104	Basic Electrical Engineering		-				25	25	50
FEL105	Basic Workshop practice-I						50	10	50
	Total			90	360		175	50	675

^{*} Shall be conducted batch-wise

St. Francis Institute

Of Technology (Engg-College)

Mount Poinsur, S. V. P. Road,
University of Mumbal, First Year Engineering (Common for all Branches of Engineering) REV2019 'C' Scheme
Borivii (VVest), Wumbal - Total Branches of Engineering)

11/61

Semester II

Course	Course Name	100000	aching S Contact H			Cr	edits As	signed	
Code		Theory	Pract	. T	ut. T	neory P	ract.	Tut.	Total
FEC201	Engineering Mathematics-II	3		1	*	3		1	4
FEC202	Engineering Physics-II	2				2			2
FEC203	Engineering Chemistry-II	2	11/1/22	10 4,0 9	-	2	111	D08 I	2
FEC204	Engineering Graphics	2		en e	-mil ,	2			2
FEC205	C programming	2			- []	2		J)==	2
FEC206	Professional Communication and Ethics- I	2				2		to <u>u</u> with	2
FEL201	Engineering Physics-II		1				0.5		0.5
FEL202	Engineering Chemistry-II		1		-		0.5		0.5
FEL203	Engineering Graphics	-	4		-		2		2
FEL204	C programming	11-1	2		-		1		1
FEL205	Professional Communication and Ethics- I		2	-	-	8	1		1
FEL206	Basic Workshop practice-II		2	-	-		1		1
	Total	13	12	0	1	13	06	01	20
	111 1 111 11 81			THE REAL PROPERTY.	Examina	tion Schem	ie	W.	
			0.00	Theor	y				
Course Code	Course Name	Intern	al Assess	ment	End	Exam.	Term	Pract.	Tota
tunes.	and the same of th	Test1	Test 2	Avg.	Sem. Exam.	Duration (in Hrs)	Work	/oral	Total
FEC201	Engineering Mathematics-II	20	20	20	80	3	25	-	125
FEC202	Engineering Physics-II	15	15	15	60	2			75
FEC203	Engineering Chemistry-II	15	15	15	60	2			75
FEC204	Engineering Graphics	15	15	15	60	3			75
FEC205	C programming	15	15	15	60	2			75
FEC206	Professional Communication and Ethics- I	10	10	10	40	2	L		50
FEL201	Engineering Physics-II				15-1	1 W	25	1	25
FEL202	Engineering Chemistry-II	<u> </u>					25		25
FEL203	Engineering Graphics		17.1	[25	50	75
FEL204	C programming		-				25	25	50
FEL205	Professional Communication and Ethics- I		- (<u>-</u>	<u> </u>	-		25		25
FEL206	Basic Workshop practice-II		-		-		50		50
	Total		20	90	360		200	75	725

* Shall be conducted batch-wise

PRINCIPAL

St. Francis Institute

Of Technology (Engg-College)

University of Mumbai, First Year Engineering (Common for all Engineering) REV2019 'C' Scheme

Borivli (West), Mumbai - 400 103.

Se cond Year Engg, Computer Engineering New Syllabus - R-2019 Semester III & IV

University of Mumbai



Semester 11 8 TV

No. UG/ 50 of 2021

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges, Directors of the recognized Institutions in Science & Technology Faculty is invited to the syllabus directly uploaded by the Academic Authority Unit which was accepted by the Academic Council at its meeting held on 11th May, 2017 vide item No.4.193 relating to the revised syllabus as per the (CBCGS) for Bachelor of Engineering (Computer Engineering) Second Year w.e.f. AY 2017-18, Third Year w.e.f. AY 2018-19 and Final Year w.e.f. AY 2019-20 (Rev – 2016) from Academic Year 2016-17.

They are hereby informed that the recommendations made by the Ad-hoc Board of Studies in Computer Engineering at its meeting held on 7th May, 2020 and subsequently made by the Board of Deans at its meeting held on 26th June, 2020 vide item No. 14(11) have been accepted by the Academic Council at its meeting held on 23rd July, 2020 vide item No. 4.127 and that in accordance therewith, the revised syllabus (Rev-2019 'C' Scheme) for the B.E. in Computer Engineering (Sem.III & IV) has been brought into force with effect from the academic year 2020-21. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032 21St January, 2021 To

(Dr. B.N.Gaikwad)
I/c REGISTRAR

The Principals of the Affiliated Colleges, and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/4.127/23/07/2020

No. UG/ 50 -A of 2021

MUMBAI-400 032

21St January, 2021

Copy forwarded with Compliments for information to:-

1) The Dean, Faculty of Science & Technology,

- 2) The Chairman, Ad-hoc Board of Studies in Computer Engineering,
- 3) The Director, Board of Examinations and Evaluation,

4) The Director, Board of Students Development,

5) The Co-ordinator, University Computerization Centre,

(Dr. B.N.Gaikwad) I/c REGISTRAR



UNIVERSITY OF MUMBAI



Bachelor of Engineering

in

Computer Engineering

Second Year with Effect from AY 2020-21

Third Year with Effect from AY 2021-22

Final Year with Effect from AY 2022-23

(REV-2019 'C' Scheme) from Academic Year 2019 - 20

Under

FACULTY OF SCIENCE & TECHNOLOGY

(As per AICTE guidelines with effect from the academic year 2019–2020)

PRINCIPAL



Program Structure for Second Year Computer Engineering

UNIVERSITY OF MUMBAI (With Effect from 2020-2021) Semester III

Course Code	Course Name		eaching Contact				Credits	Assigned	30715
		Theory	Pra	act.	Tut.	Theory	Pract.	Tut.	Total
CSC301	Engineering Mathematics- III	3		-	1*	3	1 22 1	1	4
CSC302	Discrete Structures and Graph Theory	3	-	-		3		-	3
CSC303	Data Structure	3	-	-		3			3
CSC304	Digital Logic & Computer Architecture	3	1	-		3			3
CSC305	Computer Graphics	3	-	-	1	3			3
CSL301	Data Structure Lab		2				1		1
CSL302	Digital Logic & Computer Architecture Lab		2				1		1
CSL303	Computer Graphics Lab	1	2			- 1	1		1
CSL304	Skill base Lab course: Object Oriented Programming with Java		2+2	2*	-	<u> </u>	2		2
CSM301	Mini Project – 1 A		45	5			2		2
	Total	15	14	1	1	15	07	111	23
	4 - 111 6				Exan	nination Sch	eme		T T
				Theor	у		Term Work	Pract & oral	Total
Course Code	Course Name	Internal	Assess	ment	End Sem. Exam	Exam. Duration (in Hrs)		to train	No.
		Test							
GG GGG		1	Test2	Avg					
CSC301	Engineering Mathematics-	Market Company	Test2	Avg 20	80	3	25		125
CSC302		1			80	3	25		125
CSC302	Discrete Structures and Graph Theory Data Structure	20	20	20				11	
CSC301 CSC302 CSC303 CSC304	Discrete Structures and Graph Theory	1 20 20	20	20	80	3	'		100
CSC302 CSC303 CSC304	Discrete Structures and Graph Theory Data Structure Digital Logic & Computer	1 20 20 20 20	20 20 20	20 20 20	80	3			100
CSC302 CSC303	Discrete Structures and Graph Theory Data Structure Digital Logic & Computer Architecture	1 20 20 20 20 20	20 20 20 20	20 20 20 20 20	80 80 80	3 3 3	-	11	100 100 100 100
CSC302 CSC303 CSC304 CSC305	Discrete Structures and Graph Theory Data Structure Digital Logic & Computer Architecture Computer Graphics	1 20 20 20 20 20 20	20 20 20 20 20 20	20 20 20 20 20 20	80 80 80 80	3 3 3 3		111	100 100 100
CSC302 CSC303 CSC304 CSC305 CSL301	Discrete Structures and Graph Theory Data Structure Digital Logic & Computer Architecture Computer Graphics Data Structure Lab Digital Logic & Computer	1 20 20 20 20 20 20	20 20 20 20 20 20	20 20 20 20 20 20	80 80 80 80	3 3 3 	 25 25	 25	100 100 100 100 50 25
CSC302 CSC303 CSC304 CSC305 CSL301 CSL302	Discrete Structures and Graph Theory Data Structure Digital Logic & Computer Architecture Computer Graphics Data Structure Lab Digital Logic & Computer Architecture Lab	1 20 20 20 20 20	20 20 20 20 20 20 	20 20 20 20 20 20 	80 80 80 80 	3 3 3	 25	 25	100 100 100 100 50
CSC302 CSC303 CSC304 CSC305 CSL301 CSL302	Discrete Structures and Graph Theory Data Structure Digital Logic & Computer Architecture Computer Graphics Data Structure Lab Digital Logic & Computer Architecture Lab Computer Graphics Lab Skill base Lab course: Object Oriented	1 20 20 20 20 20	20 20 20 20 20 	20 20 20 20 20 	80 80 80 80 	3 3 3 	 25 25 25	 25 25	100 100 100 100 50 25 50

^{*}Should be conducted batch wise and

\$ indicates workload of Learner (Not Faculty), Students can form groups with minimum 2 (Two) and not more than 4 (Four), Faculty Load: I hour per week per four groups PRINCIPAL

Program Structure for Second Year Computer Engineering UNIVERSITY OF MUMBAI (With Effect from 2020-2021)

Semester IV

Course Code	Course Name		eaching S Contact I		0)		Credits As	Tut. 1 1 Pract & oral 25 25 25	
Code		Theory	Prac	t. 1	Tut.	Theory	Pract.	Tut.	Total
CSC401	Engineering Mathematics-IV	3	-		1*	3		1	4
CSC402	Analysis of Algorithm	3	-			3		-	3
CSC403	Database Management System	3	-		- 1	3	<u> </u>		3
CSC404	Operating System	3	4 12			3	Emi		3
CSC405	Microprocessor	3		,-	"	3			3
CSL401	Analysis of Algorithm Lab		2				1		1
CSL402	Database Management System Lab		2	MI		1-2-7	1	-	1
CSL403	Operating System Lab		2)' rs,ii	1		1
CSL404	Microprocessor Lab		2		-		1		1
CSL405	Skill Base Lab Course: Python Programming	-	2*+2	2	-		2		2
CSM401	Mini Project 1-B		4 ^s		-	-	2		2
I I	Total	15	16		1	15	7	1	24
		minut T			Examin	ation Sche	me		
10.1	Dogs I February		(Temple)	Theor	у		Term Work	CONTRACTOR OF THE PARTY OF THE	Tota
Course Code	Course Name	Intern	al Assess	ment	End Sem. Exam.	Exam. Duration (in Hrs)			
		Test 1	Test 2	Avg.	mat t				
CSC401	Engineering Mathematics-IV	20	20	20	80	3	25		125
CSC402	Analysis of Algorithm	20	20	20	80	3		gen.	100
CSC403	Database Management System	20	20	20	80	3			100
CSC404	Operating System	20	20	20	80	3			100
CSC405	Microprocessor	20	20	20	80	3			100
CSL401	Analysis of Algorithm Lab	12-1	1			-	25	25	50
							25	25	50
CSL402	Database Management System Lab				11		T T		
CSL402 CSL403			1	-			25	25	50
	System Lab								50 25
CSL403	System Lab Operating System Lab	-	Y	-			25		25
CSL403 CSL404	System Lab Operating System Lab Microprocessor Lab Skill Base Lab Course:						25 25		

^{*}Should be conducted batchwise and

\$ indicates workload of Learner (Not Faculty), Students can form groups with minimum 2 (Two)

PRINCIPAL (Four), Faculty Load: I hour per week per four groups.

3 SE_EXTC \$2019

University of Mumbai

Semester II & IV

Second year

Electronics & Telecommunication

Engineering

New Syllabor - R-2019



No. UG/ 56 of 2021

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges, Directors of the recognized Institutions in Science & Technology Faculty is invited to the syllabus directly uploaded by the Academic Authority Unit which was accepted by the Academic Council at its meeting held on 11th May, 2017 <u>vide</u> item No.4.307 relating to the revised syllabus as per the (CBCGS) for Bachelor of Engineering (Electronics and Telecommunication Engineering) Second Year w.e.f. AY 2017-18, Third Year w.e.f. AY 2018-19 and Final Year w.e.f. AY 2019-20 (Rev – 2016) from Academic Year 2016-17.

They are hereby informed that the recommendations made by the Board of Studies in Electronics and Telecommunication Engineering at its meeting held on 5th May, 2020 and subsequently made by the Board of Deans at its meeting held on 20th July, 2020 vide item No. 6 have been accepted by the Academic Council at its meeting held on 23rd July, 2020 vide item No. 4.145 and that in accordance therewith, the revised syllabus (Rev-2019 'C' Scheme) for the B.E. in Electronics and Telecommunication Engineering (Sem.III & IV) has been brought into force with effect from the academic year 2020-21. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032 21^{S‡} January, 2021

To

(Dr. B.N.Gaikwad) I/c REGISTRAR

The Principals of the Affiliated Colleges, and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/4.145/23/07/2020

No. UG/ 56 -A of 2021

MUMBAI-400 032

215+ January, 2021

Copy forwarded with Compliments for information to:-

- 1) The Dean, Faculty of Science & Technology,
- 2) The Chairman, Board of Studies in Electronics and Telecommunication Engineering,
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Co-ordinator, University Computerization Centre,

(Dr. B.N.Gaikwad) I/c REGISTRAR



AC - 23/07/2020

UNIVERSITY OF MUMBAI



Bachelor of Engineering

in

Electronics and Telecommunication Engineering

Second Year with Effect from AY 2020-21 Third Year with Effect from AY 2021-22 Final Year with Effect from AY 2022-23

(REV- 2019 'C' Scheme) from Academic Year 2019 - 20

Under

FACULTY OF SCIENCE & TECHNOLOGY

(As per AICTE guidelines with effect from the academic year PRINCIPAR

St. Francis Institute

2019-2020)

Mount Poinsur, S. V. P. Road,

Borivii (West), Mumbai - 400 103 University of Mumbai - R-2019-C-Scheme - SY Electronics and Telecommunication Engineering

Program Structure for Second Year Engineering Semester III & IV

UNIVERSITY OF MUMBAI

(With Effect from 2020-2021) Semester III

Course Code	Course Name		ching Sche intact Hou			Credits .		
Code		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
ECC301	Engineering Mathematics- III	3		1*	3		1	4
ECC302	Electronic Devices & Circuits	3	1	-	3			3
ECC303	Digital System Design	3			3			3
ECC304	Network Theory	3		1	3		1	4
ECC305	Electronic Instrumentation & Control Systems	3	T		3			3
ECL301	Electronic Devices & Circuits Lab	1 1	2		- NIIII	1	TELL T	1
ECL302	Digital System Design Lab		2			1	hi gart I	1
ECL303	Electronic Instrumentation & Control Systems Lab		2			1		1
ECL304	Skill Lab: C++ and Java Programming		4	22		2		2
ECM301	Mini Project 1A		4 ^s		T	2		2
dine.	Total	15	14	2	15	07	2	24

^{*} Should be conducted batch wise.

^{\$} Indicates work load of a learner (Not Faculty) for Mini Project 1A. Faculty Load: 1 hour per week per four groups.

	THE RESERVE SHIP				Examin	ation Schen	ne		
			(funding	Theory					
Course Code	Course Name	Inter	nal Assess	ment	End	Exam.	Term	Pract. & oral	Total
	(a) pick	Test 1	Test 2	Avg.	Sem. Exam	Duration (in Hrs)	Work	& oral	Total
ECC301	Engineering Mathematics-III	20	20	20	80	3	25		125
ECC302	Electronic Devices & Circuits	20	20	20	80	3	- 		100
ECC303	Digital System Design	20	20	20	80	3			100
ECC304	Network Theory	20	20	20	80	3	25		125
ECC305	Electronic Instrumentation & Control Systems	20	20	20	80	3		-	100
ECL301	Electronic Devices & Circuits Lab			1			25	25	50
ECL302	Digital System Design Lab					-	25		25
ECL303	Electronic Instrumentation & Control Systems Lab			-			25		25
ECL304	Skill Lab: C++ and Java Programming		-		7	-	25	25	50
ECM301	Mini Project 1A	1	7-7-				25	25	50
	Total	F-23	and Palestan	100	400		175	75	750

PRINCIPAE

St. Francis Institute
Of Connology (Engg-College)
Mount Pointer, Sunversity America - R-2019 0 Scheme
Borivii (VVsst), Mumbai - 400 103.

SYElectronics and Telecommunication Engineering

6 of 78

Semester IV

Course Code	Course Name		ching Sche				ssigned	ned	
Couc	umijovi ili 10	Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total	
ECC401	Engineering Mathematics-IV	3		1*	3		1	4	
ECC402	Microcontrollers	3			3		-	3	
ECC403	Linear Integrated Circuits	3	1 b i	-	3		T - T	3	
ECC404	Signals & Systems	3 *		1	3		1	4	
ECC405	Principles of Communication Engineering	3			3	2010 - 10 h		3	
ECL401	Microcontrollers Lab		2			In a 1 u ui		1	
ECL402	Linear Integrated Circuits Lab		2			i		1	
ECL403	Principles of Communication Engineering Lab	-	2	-	to be great	I		1	
ECL404	Skill Lab: Python Programming		4	-		2		2	
ECM401	Mini Project 1B		48			2		2	
	Total	15	14	2	15	7	2	24	

^{*} Should be conducted batch wise.

^{\$} Indicates work load of a learner (Not Faculty) for Mini Project 1B. Faculty Load: 1 hour per week per four groups.

					Examina	tion Schem	e			
				Theory					H	
Course Code	Course Name	Intern	nal Assessi	ment	End	Exam.	Term	Pract. & oral	Pract.	Total
	And there is the same	Test 1	Test 2	Avg.	Sem. Exam.	Duration (in Hrs)	Work	& oral	Total	
ECC401	Engineering Mathematics-IV	20	20	20	80	3	25		125	
ECC402	Microcontrollers	20	20	20	80	3			100	
ECC403	Linear Integrated Circuits	20	20	20	80	3			100	
ECC404	Signals & Systems	20	20	20	80	3	25		125	
ECC405	Principles of Communication Engineering	20	20	20	80	3			100	
ECL401	Microcontrollers Lab		-				25		25	
ECL402	Linear Integrated Circuits Lab						25	25	50	
ECL403	Principles of Communication Engineering Lab						25	25	50	
ECL404	Skill Lab: Python Programming						25	25	50	
ECM401	Mini Project 1B						25	25	50	
	Total	-		100	400		175	100	775	

St. Francis Institute
Of Technology (Engg-Coilege)
Mount Poinsur, S. V. P. Road,
Borivilli (Woci) and Regional and Telecommunication Engineering

3 SE_INFT_R2019

University of Alumbai

Second Year

Information Technology New Syllabus - R2019

INFT Someder III & TV

No. UG/ 49 of 2021

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges, Directors of the recognized Institutions in Science & Technology Faculty is invited to the syllabus directly uploaded by the Academic Authority Unit which was accepted by the Academic Council at its meeting held on 11th May, 2017 vide item No.4.180 relating to the revised syllabus as per the (CBCGS) for Bachelor of Engineering (Information Technology) Second Year w.e.f. AY 2017-18, Third Year w.e.f. AY 2018-19 and Final Year w.e.f. AY 2019-20 (Rev – 2016) from Academic Year 2016-17.

They are hereby informed that the recommendations made by the Ad-hoc Board of Studies in Information Technology at its meeting held on 24th April, 2020 and subsequently made by the Board of Deans at its meeting held on 26th June, 2020 vide item No. 14(10) have been accepted by the Academic Council at its meeting held on 23rd July, 2020 vide item No. 4.126 and that in accordance therewith, the Scheme (Sem. III to VIII) and revised syllabus (Rev-2019 'C' Scheme) for the B.E. in Information Technology (Sem.III & IV) has been brought into force with effect from the academic year 2020-21. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032 21 To

(Dr. B.N.Gaikwad) I/c REGISTRAR

The Principals of the affiliated Colleges, and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

No. UG/49 -A of 2021

MUMBAI-400 032

21St January, 2021

Copy forwarded with Compliments for information to:-

- 1) The Dean, Faculty of Science & Technology,
- 2) The Chairman, Ad-hoc Board of Studies in Information Technology,
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Co-ordinator, University Computerization Centre,

(Dr. B.N.Gaikwad) I/c REGISTRAR



AC:

23/7/2020

Item No.:

126

UNIVERSITY OF MUMBAI



Bachelor of Engineering

in

Information Technology Engineering

Second Year with Effect from AY 2020-21
Third Year with Effect from AY 2021-22
Final Year with Effect from AY 2022-23

(REV- 2019 'C' Scheme) from Academic Year 2019 – 20

Under

FACULTY OF SCIENCE & TECHNOLOGY

(As per AICTE guidelines with effect from the academic year 2019–2020)

PRINCIPAL



Program Structure for Second Year Engineering Semester III & IV UNIVERSITY OF MUMBAI

(With Effect from 2020-2021)

Semester III

Course Code	Course Name			ig Schei ct Hour			Credits	Assigned	d tall
Couc		The	ory P	ract.	Tut.	Theory	Pract.	Tut.	Total
ITC301	Engineering Mathematics-III	3			1	3		1	4
ITC302	Data Structure and Analysis	3				3			3
ITC303	Database Management System	3		_		3		11111	3
ITC304	Principle of Communication	3				3	- 15-2-2 11	1122	3
ITC305	Paradigms and Computer Programming Fundamentals	3				3			3
ITL301	Data Structure Lab			2			1	/n/m	1
ITL302	SQL Lab			2		1	1		1
ITL303	Computer programming Paradigms Lab			2			1	F11-2-111	1
ITL304	Java Lab (SBL)			4			2		2
TM301	Mini Project – 1 A Front end /backend Application using JAVA			48			2	W -	2
	Total	15		14	1	15	07	1	23
	and I make the				Ex	amination	Scheme		
	The same of the sa			Theo	ory		Term Work	Pract/ oral	Total
Course Code	Course Name	Interi	nal Asse	essment	End Sem. Exam	Exam. Duration (in Hrs)			1105
		Test 1	Test2	Avg.					
TC301	Engineering Mathematics-III	20	20	20	80	3	25		125
TC302	Data Structure and Analysis	20	20	20	80	3			100
TC303	Database Management System	20	20	20	80	3			100
TC304	Principle of Communication	20	20	20	80	3		1105251	100
TC305	Paradigms and Computer Programming Fundamentals	20	20	20	80	3	4-		100
TL301	Data Structure Lab	77					25	25	50
TL302	SQL Lab	<u> 111 - 1</u>			-		25	25	50
TL303	Computer programming Paradigms Lab						25	25	50
TL304	Java Lab (SBL)						25	25	50
ГМ301	Mini Project – 1 A Front end /backend Application using JAVA		1122			/	25	25	50
	Total A			100	400		150	125	775

\$ indicates work load of Learner (Not Faculty), for Mini Project.

Program Structure for Second Year Engineering Semester III & IV UNIVERSITY OF MUMBAI

(With Effect from 2020-2021)

Semester IV

Course	Course Name		eaching Contact			(Credits As	signed	
Code		Theor	y Prac	t. T	ut. T	Theory	Pract.	Tut.	Total
ITC401	Engineering Mathematics-IV	3			1	3		1	4
ITC402	Computer Network and Network Design	3				3	State High	-	3
ITC403	Operating System	3			- 6	3	ar a r w	m 1	3
ITC404	Automata Theory	3				3	- 12.	41	3
ITC405	Computer Organization and Architecture	3				3			3
ITL401	Network Lab		2				1		1
ITL402	Unix Lab		2				1	77	1
ITL403	Microprocessor Lab		2			-	1	W ==	1
ITL404	Python Lab (SBL)		4				2		2
ITM401	Mini Project – 1 B Python based automation projects		4\$				2		2
	Total	15	14		1	15	7	1	23
					Examir	nation Sch	eme	Tut. 1	
	days and			Theor	·y		Term Work	2.65 (2.00)	Total
Course Code	Course Name	Interr	al Assess	sment	End Sem. Exam.	Exam. Duration (in Hrs)	ST.		mach Ilira
	(((((((((((((((((((Test 1	Test 2	Avg.					
ITC401	Engineering Mathematics-IV	20	20	20	80	3	25		125
ITC402	Computer Network and Network Design	20	20	20	80	3	-		100
ITC403	Operating System	20	20	20	80	3		111	100
ITC404	Automata Theory	20	20	20	80	3	H-7		100
ITC405	Computer Organization and Architecture	20	20	20	80	3	-		100
ITL401	Network Lab					N	25	25	50
ITL402	Unix Lab				7/	122	25	25	50
ITL403	Microprocessor Lab								

100

400

25

25

150

25

25

75

50

50

775

\$ indicates work load of learner (Not Faculty), for Mini Project.

PRINCIPAL

Python Lab (SBL)

automation projects

Total

ITL404

ITM401

St. Francis Institute

Mini Project – 1 B Python based

Of Technology (Engg-Coilege) Mount Poinsur, S. V. P. Road, Borivli (West), Mumbai - 400 103. University of Alumbai

Second Year

Electrical Engineering

New Syllabus R2019



Semester II & IV

No. UG/ 47 of 2021

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges, Directors of the recognized Institutions in Science & Technology Faculty is invited to the syllabus directly uploaded by the Academic Authority Unit which was accepted by the Academic Council at its meeting held on 11th May, 2017 vide item No.4.183 relating to the revised syllabus as per the (CBCGS) for Bachelor of Engineering (Electrical Engineering) Second Year w.e.f. AY 2017-18, Third Year w.e.f. AY 2018-19 and Final Year w.e.f. AY 2019-20 (Rev – 2016) from Academic Year 2016-17.

They are hereby informed that the recommendations made by the Board of Studies in Electrical Engineering at its meeting held on 23rd April, 2020and subsequently by the Board of Deans at its meeting held on 26th June, 2020 vide item No. 14(8) have been accepted by the Academic Council at its meeting held on 23rd July, 2020 vide item No. 4.124 and that in accordance therewith, the scheme (Sem. III to VIII) and revised syllabus (Rec-2019 'C' Scheme) for the B.E. in Electrical Engineering (Sem.III & IV) has been brought into force with effect from the academic year 2020-21. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032 21^{\$4} January, 2021 (Dr. B.N.Gaikwad) I/c REGISTRAR

The Principals of the Affiliated Colleges, and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/4.124/23/07/2020

No. UG/ 47-A of 2021

MUMBAI-400 032

21St January, 2021

Copy forwarded with Compliments for information to:-

- 1) The Dean, Faculty of Science & Technology,
- 2) The Chairman, Board of Studies in Electrical Engineering,
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Co-ordinator, University Computerization Centre,

(Dr. B.N.Gaikwad) I/c REGISTRAR



UNIVERSITY OF MUMBAI



Bachelor of Engineering

in

Electrical Engineering

Second Year with Effect from AY 2020-21

Third Year with Effect from AY 2021-22

Final Year with Effect from AY 2022-23

(REV- 2019 'C' Scheme) from Academic Year 2019 – 20

Under

FACULTY OF SCIENCE & TECHNOLOGY

(As per AICTE guidelines with effect from the academic year 2019–2020)



Program Structure for Second Year Electrical Engineering (Semester III & IV) UNIVERSITY OF MUMBAI (With Effect from 2020-2021)

Semester III

			cincator	***						
Course	Course Name		ing Scher tact Hour		Credits Assigned					
Code	7 1 h 1 2 2 2 1 1 1 1 1 1	Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total		
EEC301	Engineering Mathematics- III	3		1	3		1	4		
EEC302	Electrical Circuit Analysis	3			3		-	3		
EEC303	Fundamentals of Electrical Machines & Measurements	4			4			4		
EEC304	Electrical Power System I	3			3	xx	<u></u>	3		
EEC305	Analog Electronics	3	PU-29 0		3			3		
EEL301	Electrical Machines & Measurements Lab		2	(- n	-	1		1		
EEL302	Electronics Lab-I		2		111111111111111111111111111111111111111	1		1		
EEL303	Simulation Lab-I		2			1		1		
EEL304	SBL-I: Applied Electrical Engineering Lab		4		bur-icht	2	u=	2		
EEM301	Mini Project – 1A		4 ^s			2		2		
	Total	16	14	1	16	07	1	24		
		Exami	nation Scl	neme						

				Theor	y	The second			
Course	Course Name	Inter	nal Assess	ment	End	Exam.	Term	Pract/	Total
Code		Test I	Test II	Avg	Sem. Exam	Duration (in Hrs)	Work	Oral	
EEC301	Engineering Mathematics-III	20	20	20	80	3	25		125
EEC302	Electrical Circuit Analysis	20	20	20	80	3		-	100
EEC303	Fundamentals of Electrical Machines & Measurements	20	20	20	80	3		-	100
EEC304	Electrical Power System-I	20	20	20	80	3			100
EEC305	Analog Electronics	20	20	20	80	3			100
EEL301	Electrical Machines & Measurements Lab	-					25	25	50
EEL302	Electronics Lab-I						25	25	50
EEL303	Simulation Lab-I						25	25	50
EEL304	SBL-I: Applied Electrical Engineering Lab				-	_	50	_	50
EEM301	Mini Project – 1 A				17-		25	25	50
	Total	12-5		100	400	10	175	100	775

\$ indicates work load of Learner (Not Faculty), for Mini Project

PRIVOVERSITY of Mumbai, Electrical Engineering, Rev. 2019 'C' Scheme

Semester IV

Course Code	Course Name		ing Schemo act Hours)		Credits Assigned				
Code		Theory	Pract.	Tut.	Theory	ry Pract. Tut.			
EEC401	Engineering Mathematics-IV	3	-	1	3	-	1	4	
EEC402	Electrical AC Machines-I	3			3	-		3	
EEC403	Digital Electronics	3			3			3	
EEC404	Power Electronic Devices and Circuits	3			3			3	
EEC405	Electric and Hybrid Electric Vehicles	3			3	-	 _	3	
EEL401	Electrical AC Machines Lab I		2			1		1	
EEL402	Python Programming Lab		2			1		1	
EEL403	Electronics Lab II		2			1		1	
EEL404	SBL-II: PCB Design and Fabrication Lab	-	4			2	-	2	
EEM401	Mini Project – 1B	-	4 ^s			2		2	
	Total	15	14	1	15	7	1	23	

Examination Scheme

				Theory	у				Total 125 100 100 100 100 50 50 50 50
Course Code	Course Name	Interr	al Assess	ment	End	Exam.	Term Work	Pract/ oral	
Coue		Test I	Test II	Avg.	Sem. Exam.	Duration (in Hrs)	WOLK	orai	
EEC401	Engineering Mathematics-IV	20	20	20	80	3	25		125
EEC402	Electrical AC Machines-I	20	20	20	80	3	= 1	-	100
EEC403	Digital Electronics	20	20	20	80	3			100
EEC404	Power Electronic Devices and Circuits	20	20	20	80	3			100
EEC405	Electric and Hybrid Electric Vehicles	20	20	20	80	3			100
EEL401	Electrical AC Machines Lab-I	-	-		-		25	25	50
EEL402	Python Programming Lab		-		-	_	25	25	50
EEL403	Electronics Lab-II						25	25	50
EEL404	SBL-II: PCB Design and Fabrication Lab	-	-		-		50		50
EEM401	Mini Project -1B	\ 				-	25	25	50
	Total			100	400	-	175	100	775

\$ indicates work load of Learner (Not Faculty), for Mini Project

SBL: Skill Based Lab

Students group and load of faculty per week.

Mini Project 1A / 1B: Students can form groups with minimum 3 (Three) and not more than 4 (Four)

Faculty Load: 1 hour per week per four groups

University of Mumbai, Electrical Engineering Rev. 2019 'C' Scheme

6 SE_MECH_R2019

University of Mumbai

Second Year Mechanical Engineering New Syllabus R2019



MECH Semester III & IV

CIRCULAR:-

Attention of the Principals of the Affiliated Colleges, Directors of the recognized Institutions in Science & Technology Faculty is invited to this office circular No. UG/167 of 2017-18 dated 8th August, 2017 relating to the revised syllabus as per the (CBCS) for Bachelor of Engineering (Mechanical Engineering) (Sem.III to VIII) be revised for S.E. (Sem.III & IV) from Academic Year 2017-18, Third Year (Sem.V & VI) from academic Year 2018-19 and Bachelor of Engineering (Sem.VII & VIII) from Academic Year 2019-20.

They are hereby informed that the recommendations made by Board of Studies in Mechanical Engineering at its meeting held on 28th May, 2020 and subsequently by the Board of Deans at its meeting held on 26th June, 2020 vide item No. 14(3) have been accepted by the Academic Council at its meeting held on 23rd July, 2020 vide item No. 4.119 and that in accordance therewith, the scheme (Sem. III to VIII) and revised syllabus (Rev-2019 'C' Scheme) for the B.E. in Mechanical Engineering (Sem.III & IV) has been brought into force with effect from the academic year 2020-21. (The same is available on the University's website www.mu.ac.in).

MUMBAI – 400 032 21St January, 2021

(Dr. B.N.Gaikwad) I/c REGISTRAR

To

The Principals of the Affiliated Colleges, and Directors of the recognized Institutions in Science & Technology Faculty. (Circular No. UG/334 of 2017-18 dated 9th January, 2018.)

A.C/4.119/23/07/2020

No. UG/L₁ 3 -A of 2020-21 MUMBAI-400 032

21st January, 2021

Copy forwarded with Compliments for information to:

- 1) The Dean, Faculty of Science & Technology.
- 2) The Chairman, Board of Studies in Mechanical Engineering,
- 3) The Director, Board of Examinations and Evaluation,
- 4) The Director, Board of Students Development,
- 5) The Co-ordinator, University Computerization Centre,

(Dr. B.N.Gaikwad) I/c REGISTRAR



Item No. 119

UNIVERSITY OF MUMBAI



Bachelor of Engineering

in

Mechanical Engineering

Second Year with effect from AY 2020-21 Third Year with effect from AY 2021-22

Final Year with effect from AY 2022-23

(REV- 2019 'C' Scheme) from Academic Year 2019 - 20

Under

FACULTY OF SCIENCE & TECHNOLOGY

(As per AICTE guidelines with effect from the academic year 2019–2020)

St. Francis Institute Mount Poinsur, S. V. P. Road, Borivli (West), Mumbai - 400 103.



Undergraduate Program Structure for Mechanical Engineering Semester III

Course Code	Course Name		ing Scho					
Course Code	Course Name	Theory	Pract	Tut.	Theory	Pract.	Tut.	Total
MEC301	Engineering Mathematics-III	3		1	3	==-	1	4
MEC302	Strength of Materials	3			3		- 	3
MEC303	Production Processes	4			4			4
MEC304	Materials and Metallurgy	3			3			3
MEC305	Thermodynamics	3			3	-	-	3
MEL301	Materials Testing		2			1		1
MEL302	Machine Shop Practice	-	4		-	2	5707C	2
MESBL301	CAD –Modeling		4			2	<u></u>	2
MEPBL301	Mini Project – 1 A		4\$			2	1	2
	Total	16	14	1	16	07	1	24

]	Examin	ation Scho	eme		
Course Code	neering		The state of	Theor	y				
	Course Name		nternal sessmen	ıt	End	Exam. Duratio	Term Work	Pract/ Oral	125 100 100 100 50 50
	CE-1935 VA &	Test1	Test2	Avg	Sem. Exam	n (in Hrs)	WOLK	Orai	
MEC301	Engineering Mathematics-III	20	20	20	80	3	25	-	125
MEC302	Strength of Materials	20	20	20	80	3		-	100
MEC303	Production Processes	20	20	20	80	3			100
MEC304	Materials and Metallurgy	20	20	20	80	3		-	100
MEC305	Thermodynamics	20	20	20	80	3			100
MEL301	Materials Testing				,		25	25	50
MEL302	Machine Shop Practice						50		50
MESBL301	CAD – Modelling						25	25	50
MEPBL301	Mini Project – 1 A			1			25	25	50
nege dare	Total			100	400		150	75	725

\$ indicates work load of Learner (Not Faculty), for Mini Project

SBL - Skill Based Laboratory

PBL - Project Based Learning

PRINCIPAL Mumbai, B. E. (Mechanical Engineering), Rev 2019
St. Francis Institute
Of Technology (Engg-College)
Mount Poinsur, S. V. P. Road,
Borivli (West), Mumbai - 400 103.



Semester IV

Course Code	Course Name	Teachin (Contac	_		Credits A	Assigned		
Couc		Theory	Pract.	Tut.	Theory	Pract.	Tut.	Total
MEC401	Engineering Mathematics-IV	3		1	3		1	4
MEC402	Fluid Mechanics	3			3			3
MEC403	Kinematics of Machinery	3			3			3
MEC404	CAD/CAM	3			3			3
MEC405	Industrial Electronics	3			3			3
MEL401	Industrial Electronics		2			1		1
MEL402	Kinematics of Machinery		2			1		1
MEL403	Python Programming		2			1	211	1
MESBL401	CNC and 3-D Printing		4		-	2		2
MEPBL401	Mini Project – 1 B		4\$			2		2
Total		15	14	1	15	7	1	23

Course		Examination Scheme							
				Theory	y				
	Course Name	Internal Assessment			End	Exam.	Term	Pract/	
Code		Test1	Test 2	Avg.	Sem. Exa m	Duratio n (in Hrs)	Work	Oral	Total
MEC401	Engineering Mathematics-IV	20	20	20	80	3	25		125
MEC402	Fluid Mechanics	20	20	20	80	3			100
MEC403	Kinematics of Machinery	20	20	20	80	3	-	1.00	100
MEC404	CAD/CAM	20	20	20	80	3			100
MEC405	Industrial Electronics	20	20	20	80	3	:		100
MEL401	Industrial Electronics						25	25	50
MEL402	Kinematics of Machinery						25		25
MEL403	Python Programming	22					25	25	50
MESBL401	CNC and 3-D Printing			III.			25	25	50
MEPBL401	Mini Project – 1 B						25	25	50
	Total			100	400		150	100	750

\$ indicates work load of Learner (Not Faculty), for Mini Project

SBL - Skill Based Laboratory PBL - Project Based Learning