Indian Institute of Technology Palakkad
Curriculum 2017 Batch
Semesters 1 and 2   Common to all branches

Semester One

Sl No	Course Code	Course Title	Course Credit	Course Category
1	CY1010	Theoretical and Inorganic Chemistry	3	BST
2	ID1010	Ecology and Environment	2	IDC
3	ID1030	Introduction to Engineering	1	IDC
4	ID1050	Concepts in Engineering Design	2	IDC
5	GN1000	Life Skills*	0	CWC**
6	MA1010	Calculus	4	BST
7	ME1130	Engineering Drawing	3	BEP
8	ME1150	Workshop Practice I	2	BEP
9	PH1010	Physics I	3	BST
10	PH1130	Physics Laboratory	2	BSP
		Total Credits	**22**	

Semester Two

Sl No	Course Code	Course Title	Course Credit	Course Category
1	CE1020	Engineering Mechanics	4	BET
2	CS1020	Introduction to Programming	4	BET
3	CY1020	Thermodynamics, Kinetics and Organic Reactions	3	BST
4	CY1140	Chemistry Laboratory	2	BSP
5	GN1002	National Service Scheme	0	CWC**
6	MA1020	Vector Calculus and Linear Algebra	4	BST
7	ME1020	Engineering Thermodynamics	3	BET
8	ME1160	Workshop Practice II	2	BEP
9	PH1020	Physics II	3	BST
		Total Credits	**25**	

*Introduced through orientation programme. **Carries no credit but is mandatory for the award of the degree

Category Expansion:
BEP: Basic engineering practice, BET: Basic engineering theory, BSP: Basic science practice, BST: Basic science theory, CWC: Course without credit, IDC: Inter disciplinary course.

Indian Institute of Technology Palakkad
B. Tech. Curriculum for 2015 and 2016 Batches

Contents

Indian Institute of Technology Palakkad
B. Tech. Curriculum   2015 and 2016 Batches

Course Structure   2015 Batch

Sl No	Stream	Nature	Code	Semester	Credits CGPA	Credits Transferrable**	Credits Required	Credits Sub-Total
A. Humanities and Basic Sciences: Common to all branches								
1	HS	Elective: Theory	HSS	3 - 4	06	---	10	42
		Pass / Fail	HPF	2 & 7	04$	---		
2	CY	Core: Theory	SCY	1 - 2	06	---	08	
		Core: Lab	SCY	2	02	---		
3	LS	Core: Theory	SLS	3	02	---	02	
4	MA	Core: Theory	SMA	1 - 2	08	---	14	
		Elective: Theory	MAE	3 - 4	06	---		
5	PH	Core: Theory	SPH	1 - 2	06	---	08	
		Core: Lab	SPH	1	02	---		
B. Basic Engineering: Common to all branches								
1	CE, CSE, & ME	Basic: Theory	BET	1 – 3	19	---	26	**26**
		Basic: Skill	BES	1 - 3	07	---		
2	EE	Basic: Theory	BET	1 – 3	16	---	23	**23**
		Basic: Skill	BES	1 - 3	07	---		
C. Professional Major: Branch Specific								
1	CE	Core: Theory	PMT	3 - 7	56	---	66	**90 /105***
		Core: Lab	PML	3 - 7	10	---		
		Elective: Theory	PME	5 - 8	12 / 27*	06	12 / 27	
		Internship	PMP	---	02	---	02	
		Project	PMP	7 - 8	10	---	10	
2	CSE	Core: Theory	PMT	3 - 7	37	---	55	**86 / 101***
		Core: Lab	PML	3 - 7	18	---		
		Elective: Theory	PME	5 - 8	19 / 34*	06	19 / 34	
		Internship	PMP	---	02	---	02	
		Project	PMP	7 - 8	10	---	10	
3	EE	Core: Theory	PMT	3 - 7	51	---	69	**90 / 105***
		Core: Lab	PML	3 - 7	18	---		
		Elective: Theory	PME	5 - 8	09 / 24*	06	09 / 24	
		Internship	PMP	---	02	---	02	
		Project	PMP	7 - 8	10	---	10	
4	ME	Core: Theory	PMT	3 - 7	61	---	69	**90 / 105***
		Core: Lab	PML	3 - 7	08	---		
		Elective: Theory	PME	5 - 8	09 / 24*	06	09 / 24	
		Internship	PMP	---	02	---	02	
		Project	PMP	7 - 8	10	---	10	
D. General Category: Common to all branches								
1	CE	Elective: Theory	GCE	5 - 8	09	03	09	**09**
2	CSE	Elective: Theory	GCE	5 - 8	12	03	12	**12**
3	EE	Elective: Theory	GCE	5 - 8	12	03	12	**12**
4	ME	Elective: Theory	GCE	5 - 8	09	03	09	**09**
E. Others								
1	CE, CSE, EE & ME	Co-Curricular activity	NSS	2	00	---	00	**00**

Minimum Required Credits (A+B+C+D+E): B. Tech / B. Tech (Honours)			
Branch	Total Credits	Branch	Total Credits
CE	42 + 26 + 90 / 105 + 09 + 00 = **167 / 182**	EE	42 + 23 + 90 / 105 + 12 + 00 = **167 / 182**
CSE	42 + 26 + 86 / 105 + 12 + 00 = **166 / 181**	ME	42 + 26 + 90 / 105 + 09 + 00 = **167 / 182**

$Not included for CGPA calculation. *15 credits for honours programme. **Option of credit transfer for online courses and courses at other Institutes.

Indian Institute of Technology Palakkad
B. Tech. Curriculum   2015 and 2016 Batches

Semester wise courses-credits distribution   2015 Batch

Sl No	Stream	Code	Semester: No of courses (Credits) 1	2	3	4	5	6	7	8	Sub-Total Cours. (Crd.)	Total Cours. (Crd.)
A. Humanities and Basic Sciences: Common to all branches												
1	HS	HSS	---	---	1(3)	1(3)	---	---	---	---	4 (10)	
		HPF	---	1(2)	---	---	---	---	1(2)	---		
2	CY	SCY	1(3)	1(3)	---	---	---	---	---	---	3 (8)	
		SCY	---	1(2)	---	---	---	---	---	---		
3	LS	SLS	---	---	1(2)	---	---	---	---	---	1 (2)	15 (42)
4	MA	SMA	1(4)	1(4)	---	---	---	---	---	---	4 (14)	
		MAE	---	---	1(3)	1(3)	---	---	---	---		
5	PH	SPH	1(3)	1(3)	---	---	---	---	---	---	3 (8)	
		SPH	1(2)	---	---	---	---	---	---	---		
B. Basic Engineering: Common to all branches												
1	CE, CSE, ME	BET	2 (7)	3 (9)	1 (3)	---	---	---	---	---	6 (19)	9 (26)
		BES	2 (5)	1 (2)	---	---	---	---	---	---	3 (7)	
2	EE	BET	2 (7)	3 (9)	---	---	---	---	---	---	5 (16)	8 (23)
		BES	2 (5)	1 (2)	---	---	---	---	---	---	3 (7)	
C. Professional Major: Branch Specific												
1	CE	PMT	---	---	3(10)	4(16)	4(15)	3(11)	1(4)	---	15 (56)	24 + 05$ (90 + 15*)
		PML	---	---	1(2)	1(2)	1(2)	1(2)	1(2)	----	5 (10)	
		PME	---	---	---	---	2(6)	2(6)	3(9)	2(6)	4+5$ (12+15*)	
		PMP	---	---	----	---	---	1(2)	1(3)	1(7)	3 (12)**	
2	CSE	PMT	---	---	2(7)	3(11)	3(10)	2(6)	1(3)	---	11 (37)	25 + 04$ (86 + 15)
		PML	---	---	2(4)	2(4)	2(4)	2(4)	1(2)	---	9 (18)	
		PME	---	---	---	---	2(8)	2(8)	4(15)	1(3)	5+4$ (19+15*)	
		PMP	---	---	---	---	---	1(2)	1(3)	1(7)	3 (12)**	
3	EE	PMT	---	---	3(12)	4(15)	4(16)	2(8)	---	---	13 (51)	25 + 05$ (90 + 15*)
		PML	---	---	1(2)	2(4)	2(4)	2(4)	2(4)	---	9 (18)	
		PME	---	---	---	---	1(3)	2(6)	4(12)	1(3)	3+5$ (9+15*)	
		PMP	---	---	---	---	---	1(2)	1(3)	1(7)	3 (12)**	
4	ME	PMT	---	---	3(12)	4(16)	5(19)	3(10)	1(4)	---	16 (61)	23 + 05$ (90 + 15*)
		PML	---	---	---	1(2)	1(2)	1(2)	1(2)	---	4 (8)	
		PME	---	---	---	---	1(3)	2(6)	4(12)	1(3)	3+5$ (9+15*)	
		PMP	---	---	---	---	---	1(2)	1(3)	1(7)	3 (12)**	
D. General Category: Common to all branches												
1	CE	GCE	---	---	---	---	1(3)	1(3)	1(3)	---	3 (9)	3 (09)
2	CSE	GCE	---	---	---	---	1(3)	2(6)	---	1(3)	4 (12)	4 (12)
3	EE	GCE	---	---	---	---	---	2(6)	1(3)	1(3)	4 (12)	4 (12)
4	ME	GCE	---	---	---	---	1(3)	1(3)	---	1(3)	3 (9)	3 (09)
E. Others												
1	CE, CSE, EE, ME	NSS	---	1(0)	---	---	---	---	---	---	---	00

Minimum Required Credits (A+B+C+D+E): B. Tech / B. Tech (Honours)

Branch	Total (B.Tech / B.Tech Honours) Credits	Courses#	Branch	Total (B.Tech / B.Tech Honours) Credits	Courses#
CE	42+26+90/105+09+00 = **167/182**	**(51/56)**	EE	42+23+90/105+12+00 = **167/182**	**(52/57)**
CSE	42+26+90/105+12+00 = **167/182**	**(53/58)**	ME	42+26+90/105+09+00 = **167/182**	**(50/55)**

$Additional courses for honours programme. *15 additional credits for honours programme. **Internship & Project. #Does not include internship and project.

Civil Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE1100	Basic Electrical Engineering	3	BET
2	CE2050	Building Drawing	2	PML
3	CE2330	Civil Engineering Materials and Construction	4	PMT
4	CE1020	Functional Design of Buildings	2	PMT
5	AM2200	Strength of Materials	4	PMT
6	BT1010	Life Sciences	2	SLS
7	HSE1	Humanities Elective 1	3	HSS
8	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**23**	
Semester 4				
1	CE2020	Structural Engineering	4	PMT
2	CE2040	Hydraulic Engineering	4	PMT
3	CE2060	Geology and Soil Mechanics	4	PMT
4	CE2080	Surveying Theory	4	PMT
5	CE2100	Surveying Practical	2	PML
6	HSE2	Humanities Elective 2	3	HSS
7	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**24**	

*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Civil Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	CE3010	Transportation Engineering I	3	PMT
2	CE3030	Water Resources Engineering	4	PMT
3	CE3060	Basic Reinforced Concrete Design	4	PMT
4	CE3350	Geotechnical Engineering	4	PMT
5	CE3410	Construction Materials Laboratory	2	PML
6	PME1	Professional Major Elective 1	3	PME
7	PME2	Professional Major Elective 2	3	PME
8	GCE1	General Category Elective 1	3	GCE
		Minimum Credits: B.Tech / B.Tech (Honours)	**23 / 26**	
Semester 6				
1	CE3015	Transportation Engineering II	3	PMT
2	CE3025	Environmental Engineering	4	PMT
3	CE3035	Basic Structural Steel Design	4	PMT
4	CE3115	Hydraulic and Environmental Engineering Laboratory	2	PML
5	CE3125	Internship	2	PMP
6	PME3	Professional Major Elective 3	3	PME
7	PME4	Professional Major Elective 4	3	PME
8	GCE2	General Category Elective 2	3	GCE
		Minimum Credits: B.Tech / B.Tech (Honours)	**21 / 24**	
Semester 7				
1	CE4010	Estimation & Construction Management	4	PMT
2	CE4030	Structural Engineering Laboratory	2	PML
3	CE4050	Project Phase I	3	PMP
4	HS3050	Professional Ethics	2	HPF
5	PME5	Professional Major Elective 5	3	PME
6	PME6	Professional Major Elective 6	3	PME
7	PME7	Professional Major Elective 7	3	PME
8	GCE3	General Category Elective 3	3	GCE
		Minimum Credits: B.Tech / B.Tech (Honours)	**17 / 23**	
Semester 8				
1	CE4060	Project Phase II	7	PMP
2	PME8	Professional Major Elective 8	3	PME
3	PME9	Professional Major Elective 9	3	PME
		Minimum Credits: B.Tech / B.Tech (Honours)	**10 / 13**	

Computer Science and Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE1100	Basic Electrical Engineering	3	BET
2	CS2110	Computer Programming Laboratory	2	PML
3	EE2702	Digital Circuits Laboratory	2	PML
4	EE2001	Digital Systems	4	PMT
5	CS2100	Discrete Mathematics for Computer Science	3	PMT
6	BT1010	Life Sciences	2	SLS
7	HSE1	Humanities Elective 1	3	HSS
8	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**22**	
Semester 4				
1	CS2600	Computer Organization	3	PMT
2	CS2610	Computer Organization Laboratory	2	PML
3	CS2800	Data Structures and Algorithms	4	PMT
4	CS2810	Data Structures and Algorithms Lab	2	PML
5	CS2200	Language Machines and Computations	4	PMT
6	HSE2	Humanities Elective 2	3	HSS
7	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**21**	

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*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Computer Science and Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	CS3100	Paradigms of Programming	4	PMT
2	CS3300	Language Translators	3	PMT
3	CS3310	Language Translators Laboratory	2	PML
4	CS3500	Operating Systems	3	PMT
5	CS3510	Operating Systems Laboratory	2	PML
6	PME1	Professional Major Elective 1	4	PME
7	PME2	Professional Major Elective 2	4	PME
8	GCE1	General Category Elective 1	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**21 / 25**	
Semester 6				
1	CS3200	Computer Networks	3	PMT
2	CS3210	Computer Networks Lab	2	PML
3	CS3700	Introduction to Database Systems	3	PMT
4	CS3710	Database Systems Lab	2	PML
5	CS3660	Internship	2	PMP
6	PME3	Professional Major Elective 3	4	PME
7	PME4	Professional Major Elective 4	4	PME
8	GCE2	General Category Elective 2	3	GCE
9	GCE3	General Category Elective 3	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**22 / 26**	
Semester 7				
1	CS3400	Principles of Software Engineering	3	PMT
2	CS3410	Principles of Software Engineering Lab	2	PML
3	CS4800	Project Phase I	3	PMP
4	HS3050	Professional Ethics	2	HPF
5	PME5	Professional Major Elective 5	4	PME
6	PME6	Professional Major Elective 6	4	PME
7	PME7	Professional Major Elective 7	4	PME
8	PME8	Professional Major Elective 8	3	PME
Minimum Credits: B.Tech / B.Tech (Honours)			**21 / 25**	
Semester 8				
1	CS4810	Project Phase II	7	PMP
2	PME9	Professional Major Elective 9	3	PME
3	GCE4	General Category Elective 4	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**10/ 13**	

Electrical Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE2702	Digital Circuits Laboratory	2	PML
2	EE2001	Digital Systems	4	PMT
3	EE1001	Electrical and Magnetic Circuits	4	PMT
4	EE1101	Signals and Systems	4	PMT
5	BT1010	Life Sciences	2	SLS
6	HSE1	Humanities Elective 1	3	HSS
7	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**22**	
Semester 4				
1	CS2600	Computer Organization	3	PMT
2	CS2610	Computer Organization Lab	2	PML
3	EE2005	Electrical Machines	4	PMT
4	EE2006	Electromagnetic Fields	4	PMT
5	EE3002	Analog Circuits Theory	4	PMT
6	EE2701	CAD Lab	2	PML
7	HSE2	Humanities Elective 2	3	HSS
8	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**25**	

*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Electrical Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	EE2003	Power Systems	4	PMT
2	EE3001	Solid State Devices	4	PMT
3	EE3004	Control Engineering	4	PMT
4	EE3005	Analog and Digital Communication Systems	4	PMT
5	EE3125	Control Systems Laboratory	2	PML
6	EE3703	Analog Circuits Laboratory	2	PML
7	PME1	Professional Major Elective 1	3	PME
Minimum Credits: B.Tech / B.Tech Honours			**20 / 23**	
Semester 6				
1	EE3010	Digital Signal Processing	4	PMT
2	EE3015	Measurements and Instrumentation	4	PMT
3	EE3115	Measurements and Instrumentation Lab	2	PML
4	EE3110	Electrical Machines Lab	2	PML
5	EE3135	Internship	2	PMP
6	PME2	Professional Major Elective 2	3	PME
7	PME3	Professional Major Elective 3	3	PME
8	GCE1	General Category Elective 1	3	GCE
9	GCE2	General Category Elective 2	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**23 / 26**	
Semester 7				
1	EE4110	Communication Systems and Microwave Lab	2	PML
	EE4120	Power Systems Lab	2	PML
2	EE4130	Project Phase I	3	PMP
3	HS3050	Professional Ethics	2	HPF
4	PME4	Professional Major Elective 4	3	PME
5	PME5	Professional Major Elective 5	3	PME
6	PME6	Professional Major Elective 6	3	PME
7	PME7	Professional Major Elective 7	3	PME
8	GCE3	General Category Elective 3	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**18 / 24**	
Semester 8				
1	EE4135	Project Phase II	7	PMP
2	PME8	Professional Major Elective 8	3	PME
3	GCE4	General Category Elective 4	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**10 / 13**	

Mechanical Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE1100	Basic Electrical Engineering	3	BET
2	AM2530	Foundations of Fluid Mechanics	4	PMT
3	ME2050	Machine Drawing Practice	4	PMT
4	AM2200	Strength of Materials	4	PMT
5	BT1010	Life Sciences	2	SLS
6	HSE1	Humanities Elective 1	3	HSS
7	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**23**	
Semester 4				
1	ME2220	Kinematics and Dynamics of Machinery	4	PMT
2	ME2240	Measurements, Instrumentation and Control	4	PMT
3	ME2260	Materials and Design	4	PMT
4	ME2280	Manufacturing Processes	4	PMT
5	ME2540	Applied Mechanics Lab	2	PML
6	HSE2	Humanities Elective 2	3	HSS
7	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**24**	

*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Mechanical Engineering   2015 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	ME3010	Gas Dynamics	3	PMT
2	ME3020	Heat and Mass Transfer	4	PMT
3	ME3030	Combustion and IC Engines	4	PMT
4	ME3040	Machine Tools and Metrology	4	PMT
5	ME3050	Design of Machine Elements	4	PMT
6	ME3170	Mechanical Engineering Laboratory 1	2	PML
7	PME1	Professional Major Elective 1	3	PME
8	GCE1	General Category Elective 1	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**24 / 27**	
Semester 6				
1	ME3015	Applied Thermo-Fluids Engineering	4	PMT
2	ME3025	Mechanical Vibrations	3	PMT
3	ME3035	Automation in Manufacturing	3	PMT
4	ME3180	Mechanical Engineering Laboratory 2	2	PML
5	ME3100	Internship	2	PMP
6	PME2	Professional Major Elective 2	3	PME
7	PME3	Professional Major Elective 3	3	PME
8	GCE2	General Category Elective 2	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**20 / 23**	
Semester 7				
1	ME4010	Industrial Engineering and Management	4	PMT
2	ME4170	Mechanical Engineering Laboratory 3	2	PML
3	ME4150	Project Phase I	3	PMP
4	HS3050	Professional Ethics	2	HPF
5	PME4	Professional Major Elective 4	3	PME
6	PME5	Professional Major Elective 5	3	PME
7	PME6	Professional Major Elective 6	3	PME
8	PME7	Professional Major Elective 7	3	PME
Minimum Credits: B.Tech / B.Tech (Honours)			**17 / 23**	
Semester 8				
1	ME4160	Project Phase II	7	PMP
2	PME8	Professional Major Elective 8	3	PME
3	GCE3	General Category Elective 3	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**10 / 13**	

Course Structure   2016 Batch

Sl No	Stream	Nature	Code	Semester	Credits CGPA	Credits Transferable**	Credits Required	Credits Sub-Total
A. Humanities and Basic Sciences: Common to all branches								
1	HS	Elective: Theory	HSS	3 - 4	06	---	10	
		Pass / Fail	HPF	2 & 7	04$	---		
2	CY	Core: Theory	SCY	1 - 2	06	---	08	
		Core: Lab	SCY	2	02	---		
3	LS	Core: Theory	SLS	3	02	---	02	**42**
4	MA	Core: Theory	SMA	1 - 2	08	---	14	
		Elective: Theory	MAE	3 - 4	06	---		
5	PH	Core: Theory	SPH	1 - 2	06	---	08	
		Core: Lab	SPH	1	02	---		
B. Basic Engineering: Common to all branches								
1	CE, ME	Basic: Theory	BET	1 – 3	19	---	26	**26**
		Basic: Skill	BES	1 - 3	07	---		
2	CSE, EE	Basic: Theory	BET	1 – 3	16	---	23	**23**
		Basic: Skill	BES	1 - 3	07	---		
C. Professional Major: Branch Specific								
1	CE	Core: Theory	PMT	3 - 7	56	---	66	**90 /105***
		Core: Lab	PML	3 - 7	10	---		
		Elective: Theory	PME	5 - 8	12 / 27*	06	12 / 27*	
		Internship	PMP	6	02	---	02	
		Project	PMP	7 - 8	10	---	10	
2	CSE	Core: Theory	PMT	3 - 7	41		59	**90 / 105***
		Core: Lab	PML	3 - 7	18			
		Elective: Theory	PME	5 - 8	19 / 34*	06	19 / 34*	
		Internship	PMP	6	02	---	02	
		Project	PMP	7 - 8	10	---	10	
3	EE	Core: Theory	PMT	3 - 7	51	---	69	**90 / 105***
		Core: Lab	PML	3 - 7	18	---		
		Elective: Theory	PME	5 - 8	09 / 24*	06	09 / 24*	
		Internship	PMP	6	02	---	02	
		Project	PMP	7 - 8	10	---	10	
4	ME	Core: Theory	PMT	3 - 7	61	---	69	**90 / 105***
		Core: Lab	PML	3 - 7	08	---		
		Elective: Theory	PME	5 - 8	09 / 24*	06	09 / 24*	
		Internship	PMP	6	02	---	02	
		Project	PMP	7 - 8	10	---	10	
D. General Category: Common to all branches								
1	CE	Elective: Theory	GCE	5 - 8	09	03	09	**09**
2	CSE	Elective: Theory	GCE	5 - 8	12	03	12	**12**
3	EE	Elective: Theory	GCE	5 - 8	12	03	12	**12**
4	ME	Elective: Theory	GCE	5 - 8	09	03	09	**09**
E. Others								
1	CE, CSE, EE & ME	Co-Curricular activity	NSS	2	00	---	00	**00**

Minimum Required Credits (A+B+C+D+E): B. Tech / B. Tech (Honours)			
Branch	Total Credits	Branch	Total Credits
CE	42 + 26 + 90 / 105 + 09 + 00 = **167 / 182**	EE	42 + 23 + 90 / 105 + 12 + 00 = **167 / 182**
CSE	42 + 23 + 90 / 105 + 12 + 00 = **167 / 182**	ME	42 + 26 + 90 / 105 + 09 + 00 = **167 / 182**

$Not included for CGPA calculation. *15 credits for honours programme. **Option of credit transfer for online courses and courses at other Institutes.

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Indian Institute of Technology Palakkad
B. Tech. Curriculum   2015 and 2016 Batches

Semester wise courses-credits distribution   2016 Batch

Sl No	Stream	Code	Semester: No of courses (Credits)								Sub-Total Cours. (Crd.)	Total Cours. (Crd.)
			1	2	3	4	5	6	7	8		
A. Humanities and Basic Sciences: Common to all branches												
1	HS	HSS	---	---	1(3)	1(3)	---	---	---	---	4 (10)	
		HPF	---	1(2)	---	---	---	---	1(2)	---		
2	CY	SCY	1(3)	1(3)	---	---	---	---	---	---	3 (8)	
		SCY	---	1(2)	---	---	---	---	---	---		
3	LS	SLS	---	---	1(2)	---	---	---	---	---	1 (2)	
4	MA	SMA	1(4)	1(4)	---	---	---	---	---	---	4 (14)	15 (42)
		MAE	---	---	1(3)	1(3)	---	---	---	---		
5	PH	SPH	1(3)	1(3)	---	---	---	---	---	---	3 (8)	
		SPH	1(2)	---	---	---	---	---	---	---		
B. Basic Engineering: Common to all branches												
1	CE, ME	BET	2 (7)	3(9)	1(3)	---	---	---	---	---	6 (19)	**9 (26)**
		BES	2 (5)	1(2)	---	---	---	---	---	---	3 (7)	
2	CSE, EE	BET	2 (7)	3(9)	---	---	---	---	---	---	5 (16)	**8 (23)**
		BES	2 (5)	1(2)	---	---	---	---	---	---	3 (7)	
C. Professional Major: Branch Specific												
1	CE	PMT	---	---	3(10)	4(16)	4(15)	3(11)	1(4)	---	15 (56)	**24 + 05$**
		PML	---	---	1(2)	1(2)	1(2)	1(2)	1(2)	----	5 (10)	**(90 + 15*)**
		PME	---	---	---	---	2(6)	2(6)	3(9)	2(6)	4+5$ (12+15*)	
		PMP	---	---	----	---	---	1(2)	1(3)	1(7)	3 (12)**	
2	CSE	PMT	---	---	3(11)	3(11)	3(10)	2(6)	1(3)	---	12 (41)	**26 + 04$**
		PML	---	---	2(4)	2(4)	2(4)	2(4)	1(2)	---	9 (18)	**(90 + 15)**
		PME	---	---	---	---	2(8)	2(8)	4(15)	1(3)	5+4$ (19+15*)	
		PMP	---	---	---	---	---	1(2)	1(3)	1(7)	3 (12)**	
3	EE	PMT	---	---	3(12)	4(15)	4(16)	2(8)	---	---	13 (51)	**25 + 05$**
		PML	---	---	1(2)	2(4)	2(4)	2(4)	2(4)	---	9 (18)	**(90 + 15*)**
		PME	---	---	---	---	1(3)	2(6)	4(12)	1(3)	3+5$ (9+15*)	
		PMP	---	---	---	---	---	1(2)	1(3)	1(7)	3 (12)**	
4	ME	PMT	---	---	3(12)	4(16)	5(19)	3(10)	1(4)	---	16 (61)	**23 + 05$**
		PML	---	---	---	1(2)	1(2)	1(2)	1(2)	---	4 (8)	**(90 + 15*)**
		PME	---	---	---	---	1(3)	2(6)	4(12)	1(3)	3+5$ (9+15*)	
		PMP	---	---	---	---	---	1(2)	1(3)	1(7)	3 (12)**	
D. General Category: Common to all branches												
1	CE	GCE	---	---	---	---	1(3)	1(3)	1(3)	---	3 (9)	**3 (09)**
2	CSE	GCE	---	---	---	---	1(3)	2(6)	---	1(3)	4 (12)	**4 (12)**
3	EE	GCE	---	---	---	---	1(3)	1(3)	1(3)	1(3)	4 (12)	**4 (12)**
4	ME	GCE	---	---	---	---	1(3)	1(3)	---	1(3)	3 (9)	**3 (09)**
E. Others												
1	CE, CSE, EE, ME	NSS	---	1(0)	---	---	---	---	---	---	---	**00**

Minimum Required Credits (A+B+C+D+E): B. Tech / B. Tech (Honours)

Branch	Total		Branch	Total	
	Credits	Courses[#]			Courses[#]
CE	42+26+90/105+09+00 = **167/182**	**(51/56)**	EE	42+23+90/105+12+00 = **167/182**	**(52/57)**
CSE	42+26+90/105+12+00 = **167/182**	**(53/58)**	ME	42+26+90/105+09+00 = **167/182**	**(50/55)**

[$]Additional courses for honours programme. *15 additional credits for honours programme. **Internship & Project. [#]Does not include internship and project.

Civil Engineering   2016 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE1100	Basic Electrical Engineering	3	BET
2	CE2050	Building Drawing	2	PML
3	CE2330	Civil Engineering Materials and Construction	4	PMT
4	CE1020	Functional Design of Buildings	2	PMT
5	AM2200	Strength of Materials	4	PMT
6	BT1010	Life Sciences	2	SLS
7	HSE1	Humanities Elective 1	3	HSS
8	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**23**	
Semester 4				
1	CE2020	Structural Engineering	4	PMT
2	CE2040	Hydraulic Engineering	4	PMT
3	CE2060	Geology and Soil Mechanics	4	PMT
4	CE2080	Surveying Theory	4	PMT
5	CE2100	Surveying Practical	2	PML
6	HSE2	Humanities Elective 2	3	HSS
7	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**24**	

*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Civil Engineering   2016 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	CE3010	Transportation Engineering I	3	PMT
2	CE3030	Water Resources Engineering	4	PMT
3	CE3060	Basic Reinforced Concrete Design	4	PMT
4	CE3350	Geotechnical Engineering	4	PMT
5	CE3410	Construction Materials Laboratory	2	PML
6	PME1	Professional Major Elective 1	3	PME
7	PME2	Professional Major Elective 2	3	PME
8	GCE1	General Category Elective 1	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**23 / 26**	
Semester 6				
1	CE3015	Transportation Engineering II	3	PMT
2	CE3025	Environmental Engineering	4	PMT
3	CE3035	Basic Structural Steel Design	4	PMT
4	CE3115	Hydraulic and Environmental Engineering Laboratory	2	PML
5	CE3125	Internship	2	PMP
6	PME3	Professional Major Elective 3	3	PME
7	PME4	Professional Major Elective 4	3	PME
8	GCE2	General Category Elective 2	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**21 / 24**	
Semester 7				
1	CE4010	Estimation & Construction Management	4	PMT
2	CE4030	Structural Engineering Laboratory	2	PML
3	CE4050	Project Phase I	3	PMP
4	HS3050	Professional Ethics	2	HPF
5	PME5	Professional Major Elective 5	3	PME
6	PME6	Professional Major Elective 6	3	PME
7	PME7	Professional Major Elective 7	3	PME
8	GCE3	General Category Elective 3	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**17 / 23**	
Semester 8				
1	CE4060	Project Phase II	7	PMP
2	PME8	Professional Major Elective 8	3	PME
3	PME9	Professional Major Elective 9	3	PME
Minimum Credits: B.Tech / B.Tech (Honours)			**10 / 13**	

Computer Science and Engineering   2016 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE1101	Signals and Systems	4	PMT
2	CS2110	Computer Programming Laboratory	2	PML
3	EE2702	Digital Circuits Laboratory	2	PML
4	EE2001	Digital Systems	4	PMT
5	CS2100	Discrete Mathematics for Computer Science	3	PMT
6	BT1010	Life Sciences	2	SLS
7	HSE1	Humanities Elective 1	3	HSS
8	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**23**	
Semester 4				
1	CS2600	Computer Organization	3	PMT
2	CS2610	Computer Organization Laboratory	2	PML
3	CS2800	Data Structures and Algorithms	4	PMT
4	CS2810	Data Structures and Algorithms Lab	2	PML
5	CS2200	Language Machines and Computations	4	PMT
6	HSE2	Humanities Elective 2	3	HSS
7	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**21**	

*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Computer Science and Engineering   2016 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	CS3100	Paradigms of Programming	4	PMT
2	CS3300	Language Translators	3	PMT
3	CS3310	Language Translators Laboratory	2	PML
4	CS3500	Operating Systems	3	PMT
5	CS3510	Operating Systems Laboratory	2	PML
6	PME1	Professional Major Elective 1	4	PME
7	PME2	Professional Major Elective 2	4	PME
8	GCE1	General Category Elective 1	3	GCE
	Minimum Credits: B.Tech / B.Tech Honours		**21 / 25**	
Semester 6				
1	CS3200	Computer Networks	3	PMT
2	CS3210	Computer Networks Lab	2	PML
3	CS3700	Introduction to Database Systems	3	PMT
4	CS3710	Database Systems Lab	2	PML
5	CS3660	Internship	2	PMP
6	PME3	Professional Major Elective 3	4	PME
7	PME4	Professional Major Elective 4	4	PME
8	GCE2	General Category Elective 2	3	GCE
9	GCE3	General Category Elective 3	3	GCE
	Minimum Credits: B.Tech / B.Tech Honours		**22 / 26**	
Semester 7				
1	CS3400	Principles of Software Engineering	3	PMT
2	CS3410	Principles of Software Engineering Lab	2	PML
3	CS4800	Project Phase I	3	PMP
4	HS3050	Professional Ethics	2	HPF
5	PME5	Professional Major Elective 5	4	PME
6	PME6	Professional Major Elective 6	4	PME
7	PME7	Professional Major Elective 7	4	PME
8	PME8	Professional Major Elective 8	3	PME
	Minimum Credits: B.Tech / B.Tech (Honours)		**21 / 25**	
Semester 8				
1	CS4810	Project Phase II	7	PMP
2	PME9	Professional Major Elective 9	3	PME
3	GCE4	General Category Elective 4	3	GCE
	Minimum Credits: B.Tech / B.Tech (Honours)		**10/ 13**	

Electrical Engineering   2016 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE2702	Digital Circuits Laboratory	2	PML
2	EE2001	Digital Systems	4	PMT
3	EE1001	Electrical and Magnetic Circuits	4	PMT
4	EE1101	Signals and Systems	4	PMT
5	BT1010	Life Sciences	2	SLS
6	HSE1	Humanities Elective 1	3	HSS
7	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**22**	
Semester 4				
1	CS2600	Computer Organization	3	PMT
2	CS2610	Computer Organization Lab	2	PML
3	EE2005	Electrical Machines	4	PMT
4	EE2006	Electromagnetic Fields	4	PMT
5	EE3002	Analog Circuits Theory	4	PMT
6	EE2701	CAD Lab	2	PML
7	HSE2	Humanities Elective 2	3	HSS
8	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**25**	

*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Electrical Engineering   **2016 Batch**

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	EE2003	Power Systems	4	PMT
2	EE3001	Solid State Devices	4	PMT
3	EE3004	Control Engineering	4	PMT
4	EE3005	Analog and Digital Communication Systems	4	PMT
5	EE3125	Control Systems Laboratory	2	PML
6	EE3703	Analog Circuits Laboratory	2	PML
7	PME1	Professional Major Elective 1	3	PME
8	GCE1	General Category Elective 1	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**23 / 26**	
Semester 6				
1	EE3010	Digital Signal Processing	4	PMT
2	EE3015	Measurements and Instrumentation	4	PMT
3	EE3115	Measurements and Instrumentation Lab	2	PML
4	EE3110	Electrical Machines Lab	2	PML
5	EE3135	Internship	2	PMP
6	PME2	Professional Major Elective 2	3	PME
7	PME3	Professional Major Elective 3	3	PME
8	GCE2	General Category Elective 2	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**20 / 23**	
Semester 7				
1	EE4110	Communication Systems and Microwave Lab	2	PML
	EE4120	Power Systems Lab	2	PML
2	EE4130	Project Phase I	3	PMP
3	HS3050	Professional Ethics	2	HPF
4	PME4	Professional Major Elective 4	3	PME
5	PME5	Professional Major Elective 5	3	PME
6	PME6	Professional Major Elective 6	3	PME
7	PME7	Professional Major Elective 7	3	PME
8	GCE3	General Category Elective 3	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**18 / 24**	
Semester 8				
1	EE4135	Project Phase II	7	PMP
2	PME8	Professional Major Elective 8	3	PME
3	GCE4	General Category Elective 4	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**10 / 13**	

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Mechanical Engineering   **2016 Batch**

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 1				
1	CS1100	Computational Engineering	4	BET
2	CY1010	Chemistry I	3	SCY
3	ID1100	Concepts in Engineering Design	3	BET
4	MA1010	Mathematics I	4	SMA
5	ME1120	Engineering Drawing	3	BES
6	PH1010	Physics 1	3	SPH
7	PH1030	Physics Laboratory	2	SPH
8	WS1010	Workshop I	2	BES
		Total Credits	**24**	
Semester 2				
1	CY1020	Chemistry II	3	SCY
2	CY1030	Chemistry Laboratory	2	SCY
3	ID1200	Ecology and Environment	2	BET
4	AM1100	Engineering Mechanics	4	BET
5	GN1100	Life Skills*	2	HPF
6	MA1020	Mathematics II	4	SMA
7	NS1030	National Service Scheme**	0	NSS
8	PH1020	Physics II	3	SPH
9	ME1100	Thermodynamics	3	BET
10	WS1020	Workshop II	2	BES
		Total Credits	**25**	
Semester 3				
1	EE1100	Basic Electrical Engineering	3	BET
2	AM2530	Foundations of Fluid Mechanics	4	PMT
3	ME2050	Machine Drawing Practice	4	PMT
4	AM2200	Strength of Materials	4	PMT
5	BT1010	Life Sciences	2	SLS
6	HSE1	Humanities Elective 1	3	HSS
7	MAE1	Mathematics Elective 1	3	SMA
		Total Credits	**23**	
Semester 4				
1	ME2220	Kinematics and Dynamics of Machinery	4	PMT
2	ME2240	Measurements, Instrumentation and Control	4	PMT
3	ME2260	Materials and Design	4	PMT
4	ME2280	Manufacturing Processes	4	PMT
5	ME2540	Applied Mechanics Lab	2	PML
6	HSE2	Humanities Elective 2	3	HSS
7	MAE2	Mathematics Elective 2	3	SMA
		Total Credits	**24**	

*Pass / Fail course. Not considered for GPA / CGPA calculations. **Zero credits, but attendance is mandatory.

Mechanical Engineering   2016 Batch

Sl. No	Course Code	Course Title	Course Credit	Course Category
Semester 5				
1	ME3010	Gas Dynamics	3	PMT
2	ME3020	Heat and Mass Transfer	4	PMT
3	ME3030	Combustion and IC Engines	4	PMT
4	ME3040	Machine Tools and Metrology	4	PMT
5	ME3050	Design of Machine Elements	4	PMT
6	ME3170	Mechanical Engineering Laboratory 1	2	PML
7	PME1	Professional Major Elective 1	3	PME
8	GCE1	General Category Elective 1	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**24 / 27**	
Semester 6				
1	ME3015	Applied Thermo-Fluids Engineering	4	PMT
2	ME3025	Mechanical Vibrations	3	PMT
3	ME3035	Automation in Manufacturing	3	PMT
4	ME3180	Mechanical Engineering Laboratory 2	2	PML
5	ME3100	Internship	2	PMP
6	PME2	Professional Major Elective 2	3	PME
7	PME3	Professional Major Elective 3	3	PME
8	GCE2	General Category Elective 2	3	GCE
Minimum Credits: B.Tech / B.Tech Honours			**20 / 23**	
Semester 7				
1	ME4010	Industrial Engineering and Management	4	PMT
2	ME4170	Mechanical Engineering Laboratory 3	2	PML
3	ME4150	Project Phase I	3	PMP
4	HS3050	Professional Ethics	2	HPF
5	PME4	Professional Major Elective 4	3	PME
6	PME5	Professional Major Elective 5	3	PME
7	PME6	Professional Major Elective 6	3	PME
8	PME7	Professional Major Elective 7	3	PME
Minimum Credits: B.Tech / B.Tech (Honours)			**17 / 23**	
Semester 8				
1	ME4160	Project Phase II	7	PMP
2	PME8	Professional Major Elective 8	3	PME
3	GCE3	General Category Elective 3	3	GCE
Minimum Credits: B.Tech / B.Tech (Honours)			**10 / 13**	

Course Credit and Category

Credits and mode of delivery

The delivery of instructions for a given course depends on the type of course. Some possible course types and the corresponding instruction mode are listed below. The syllabus for a course will have the course type specified. Theory courses will have one session of instruction per week per credit: A three-credit theory course, for instance will have three sessions of instruction per week. Each session is of 50 min in duration. For laboratory, three contiguous sessions are assigned two credits.

Sl No	Course Type	Credits	Sessions per week		
			Lecture	Tutorial	Practical
1	Theory	4	4	0	0
2	Theory	3	3	0	0
3	Theory	2	2	0	0
4	Theory + Tutorial	4	3	1	0
5	Theory + Tutorial	3	2	1	0
6	Theory + Tutorial	2	1	1	0
7	Laboratory	2	0	0	3
8	Theory + Lab	4	2	0	3
9	Theory + Lab	3	1	3	0

Category expansion

The expansion of the acronyms for the course category is as follows.

BES   : Basic Engineering Skills
BET   : Basic Engineering Theory
GCE   : General Category Elective
HPF   : Humanities Pass Fail
HSE   : Humanities Elective
HSS   : Humanities and Social Sciences
MAE   : Mathematics Elective
NSS   : National Service Scheme
PME   : Professional Major Elective
PML   : Professional Major Laboratory
PMP   : Professional Major Practice
PMT   : Professional Major Theory
SCY   : Science Chemistry
SLS   : Science Life Science
SMA   : Science Mathematics
SPH   : Science Physics