

## ACADEMIC REGULATIONS FOR FOUR-YEAR UNDERGRADUATE DEGREE PROGRAMS

(Applicable to students from the Academic Year 2015-16 and onwards)

Branch: MECH

<b>Semester 1</b>						
	<b>Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	MA101	Math I: Calculus & Ordinary Differential Equations	4	2	0	5
2	PH101	Physics I: Mechanics & Thermodynamics	4	2	2	6
3	EE 101	Introduction to Electrical Engineering	2	1	2	3.5
4	ME 101	Introduction to Engineering Design	2	0	2	3
5	SE 101	Introduction to Society & Technology	1	1	0	1.5
6	HS 101	Literature & Philosophy	1	2	0	2
7	HS 102	French Language & Culture	0	2	0	0
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<b>Semester 2</b>						
	<b>Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	MA 102	Math II - Linear Algebra & Applied Analysis	4	2	0	5
2	CB 101	Chemistry	4	2	2	6
3	EE 102	Electronics	2	1	2	3.5
4	CS 101	Introduction to Computer Sciences	2	0	2	3
5	SE 102	Media Project	1	1	0	1.5
6	HS 103	Indian English Literature	1	2	0	2
7	HS 104	French Language & Culture	0	2	0	0
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<b>Semester 3</b>						
	<b>Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	MA 203	Mathematics- III	4	2	0	5
2	PH 202	Physics II	4	2	2	6
3	ME 202	Solid Mechanics & Fluid Mechanics	2	2	0	3

4	CS 202	Data Structures & Algorithms	2	1	1	3
5	SE 203	Design Thinking	1	0	2	2
6	SE 205	Introduction to Economy	1	1	0	1.5
7	HS 205	English & Humanities -III	1	1	0	1.5
8	HS 206	French Language & Culture-III	0	2	0	0
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<b>Semester 4</b>						
	<b>Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	MA 204	Mathematics- IV	3	2	2	5
2	CB 202	Biology	2	0	0	2
3	PH 203	Physics III	2	1	0	2.5
4	ME 203	Material Sciences	2	1	1	3
5	EE 203	Signals & Systems	2	0	2	3
6	ME 204	Manufacturing Engineering	3	0	0	3
7	SE 204	Design Project	0	1	3	2
8	HS 207	English & Humanities -IV	1	1	0	1.5
9	HS 208	French Language & Culture-IV	0	2	0	0
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<b>Semester 5</b>						
	<b>Code</b>	<b>Course</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
1	MA 305	Mathematics V	3	2	0	4
2	CE 301	Earth and Environmental Sciences	2	0	0	2
3	ME 305	Multiphysics	3	2	0	4
4	ME 307	Computer Aided Engineering Design	2	2	0	3
5	ME 309	Dynamics & Applications	3	2	0	4
6	E1	Elective	3	0	0	3
7	SE 306	Year-3 Project Phase I	0	2	2	2
8	HS 310	French Language & Culture V	0	2	0	0
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Semester 6						
	Code	Course	L	T	P	Credits
1	MA 306	Mathematics VI	2	0	0	2
2	ME 308	Experimental Analysis	1	0	4	3
3	ME 310	Fluid Mechanics	3	2	0	4
4	ME 312	Advanced Mechanics of Solids	3	2	0	4
5	ME 311	Applied Thermodynamics	3	0	0	3
6	SE 308	Year-3 Project Phase II	0	3	3	3
7	SE 309	Corporate Management and Finance	3	0	0	3
8	HS 312	French Language & Culture VI	0	2	0	0
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Semester 7						
	Code	Course	L	T	P	Credits
1	ME 411	Finite Element Method in Engineering	3	0	2	4
2	ME 413	Control Theory	3	0	0	3
3	ME 415	Industrial Engineering	3	0	0	3
4	ME 417	Design of Machine Elements	4	0	0	4
5	E3	Elective	X	X	X	3
6	ME 421	Year-4 Project Phase I	0	2	2	2
7	HS 420	Communication Skills and Personality Development	1	2	0	2
8	HS 414	French Language & Culture VII	0	2	0	0
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Semester 8						
	Code	Course	L	T	P	Credits
1	E3	Open Elective	X	X	X	3
2	E4	Professional Elective	X	X	X	3
3	E5	Open Elective	X	X	X	3
4	ME 422	Year-4 Project Phase II	0	9	9	9

5	SE 410	Entrepreneurship, IPR, Legal	3	0	0	3
6	HS 416	French Language & Culture VIII	0	2	0	0
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ELECTIVES LIST (for semesters 5, 6, 7 and 8)

S.No.	Code	Course	L	T	P	Credits
1	ME 351	Advanced Manufacturing	3	0	0	3
2	ME 450	Refrigeration & Air Conditioning	3	0	0	3
3	ME 452	Introduction to Operations Research	3	0	0	3
4	ME 353	Structural Dynamics	3	0	0	3
5	ME 454	The Theory of mechanisms and Machines	3	0	0	3
6	ME 455	Turbomachinery	3	0	0	3
7	ME 456	Systems Engineering	3	0	0	3
8	ME 457	Mechanics of Materials	3	0	0	3
9	ME 458	Introduction to IC Engines	3	0	0	3
10	ME 459	Power Plant Engineering	3	0	0	3
11	ME 460	Alternative Energy Sources	3	0	0	3
12	ME 462	Composite Materials	3	0	0	3
13	ME 463	Engineering Alloys in Design	3	0	0	3
14	ME 465	Flight Dynamics	3	0	0	3
15	ME 466	Aircraft Design	3	0	0	3
16	ME 467	Introduction to Robotics	3	0	0	3
17	ME 468	Introduction to Combustion	3	0	0	3
18	ME469	Computational Fluid Dynamics	3	0	0	3
19	CS 304	Object Oriented Programme Development and Languages	2	0	2	3
20	CS 452	Data mining	2	2	0	3
21	CS 457	Machine Learning	3	0	0	3
22	EE 454	Image Processing and Computer Vision	3	0	0	3
23	EE 465	Measurements and Instrumentation	3	0	0	3
24	CS 460	Introduction to database management systems	3	0	0	3
25	CE 470	Application of Soil Mechanics	3	0	0	3
26	EE 304	Electromechanical Energy Conversion	3	0	0	3
27	PH 304	Physics IV	3	0	0	3
28	PH 451	Lasers: Principles and Applications	3	0	0	3
29	HS 411	Introduction to Social Sciences	3	0	0	3
30	CB 304	Chemical & Bio Engineering	3	0	0	3