

13. Courses of Study and Scheme of Assessment ME PRODUCT DESIGN AND COMMERCE

(2015 REGULATIONS)
(Minimum No. of credits to be earned: 75*)

Course Code	Course Title	Hours/Week			Credits	Maximum Marks			CAT
		Lecture	Tutorial	Practical		CA	FE	Total	
I SEMESTER									
15PD01	Computational Mathematics	2	2	0	3	50	50	100	PC
15PD02	Failure Theories in Design	3	0	0	3	50	50	100	FC
15PD03	Materials Selection and Metallurgy	3	0	0	3	50	50	100	FC
15PD04	Geometric Modeling and Computer Aided Design	3	2	0	4	50	50	100	PC
15PD05	Design for Manufacture and Assembly	3	2	0	4	50	50	100	PC
15PD55	Object Computing and Data Structures Laboratory	0	0	4	2	100	-	100	PC
15PD61	Industry Visit & Technical Seminar	0	0	2	1	100	-	100	EEC
Total 26 Hrs		14	6	6	20	450	250	700	
II SEMESTER									
15PD06	Product Lifecycle Management	3	0	0	3	50	50	100	PC
15PD07	Finite Element Analysis	3	2	0	4	50	50	100	PC
15PD08	Engineering Economics	3	0	0	3	50	50	100	PC
15PD09	Product Reliability	3	0	0	3	50	50	100	PC
15PD10	Human Factors for Product Design	3	2	0	4	50	50	100	PC
15PD__	Professional Elective - 1	3	0	0	3	50	50	100	PE
15PD51	Product Design and Development Laboratory	0	0	2	1	100	-	100	PC
Total 24 Hrs		18	4	2	21	400	300	700	
III SEMESTER									
15PD__	Professional Elective - 2	3	0	0	3	50	50	100	PE
15PD__	Professional Elective - 3	3	0	0	3	50	50	100	PE
15PD__	Professional Elective - 4	3	0	0	3	50	50	100	PE
15PD__	Professional Elective - 5	3	0	0	3	50	50	100	PE
15PD__	Professional Elective - 6	3	0	0	3	50	50	100	PE
15PD52	Engineering Design Laboratory	0	0	4	2	100	-	100	PC
15PD71	Project Work I	0	0	6	3	100	-	100	EEC
Total 25 Hrs		15	0	10	20	450	250	700	
IV SEMESTER									
15PD72	Project Work II	0	0	28	14	50	50	100	EEC
Total 28 Hrs		0	0	28	14	50	50	100	
PROFESSIONAL ELECTIVE THEORY COURSES (Six to be opted)									
15PD21	Database Management Systems	3	2	0	4	50	50	100	PE
15PD22	Product Development Strategies	3	0	0	3	50	50	100	PE
15PD23	Enterprise Computing	3	0	0	3	50	50	100	PE
15PD24	Rapid Prototyping	3	0	0	3	50	50	100	PE
15PD25	Object Oriented Analysis and Design	3	2	0	4	50	50	100	PE
15PD26	Computational Fluid Dynamics and Heat Transfer	3	0	0	3	50	50	100	PE
15PD27	Composite Materials	3	0	0	3	50	50	100	PE
15PD28	Optimization Techniques	3	0	0	3	50	50	100	PE
15PD29	Analysis of Metallurgical Failures	3	0	0	3	50	50	100	PE
15PD30	Production and Operations Management	3	0	0	3	50	50	100	PE
15PD31	Total Quality Management	3	0	0	3	50	50	100	PE
15PD32	Mechanical Vibrations	3	0	0	3	50	50	100	PE
15PD33	Mechanics of Polymer Matrix Composites	3	0	0	3	50	50	100	PE

* Indicated is the minimum number of credits to be earned by a student.

CAT – Category; FC – Foundation Course; PC – Professional Core; PE – Professional Elective; EEC – Employability Enhancement Course

ONE CREDIT COURSES

15PK01	Process Improvement and Product Design through Lean Six Sigma
15PK02	Design and Optimization Technology
15PK03	Supply Chain Management
15PK04	Introduction to Precision Machining
15PK05	Theory of Constraints and its Thinking Process
15PK06	Press Tool Design
15PK07	Injection Mold Design
15PK08	Advanced Metrology and Calibration

SCIENCE ELECTIVES

15ID01	Micro Electro Mechanical Systems (MEMS)
15ID02	Sensors for Engineering Applications
15ID03	Laser Processing of Materials
15ID04	Plasma Technology
15ID05	Nanosensor and its Applications
15ID06	Nano Magnetism and Spintronics
15ID07	Corrosion Science and Engineering
15ID08	Instrumental Methods of Chemical Analysis
15ID09	Polymer Science and Technology
15ID10	Nanomaterials and Nanotechnology
15ID11	Thin Film Technology

HUMANITIES AND LANGUAGES ONE CREDIT COURSES

15OK01	Research Writing in Engineering Sciences
15OK02	Indian Ethos and Human Values
15OK03	Personality Development
15OK04	Financial Accounting and Cost Accounting