

13. Courses of Study and Scheme of Assessment

ME SOFTWARE ENGINEERING

(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									
15ZS01	Applied Statistics and Reliability	2	2	-	3	50	50	100	FC
15ZS02	Data Structures	2	2	-	3	50	50	100	FC
15ZS03	Database Design and Management	3	2	-	4	50	50	100	PC
15ZS04	Analysis and Design of Software Systems	3	2	-	4	50	50	100	PC
15ZS05	Software Requirements and Estimation	3	-	-	3	50	50	100	PC
15ZS51	Enterprise Computing Laboratory	-	-	4	2	100	-	100	PC
15ZS61	Industry Visit & Technical Seminar	-	-	2	1	100	-	100	EEC
Total 27 Hrs		13	8	6	20	450	250	700	
II SEMESTER									
15ZS06	Advanced Data Structures and Algorithms	3	2	-	4	50	50	100	PC
15ZS07	Software Testing and Quality Assurance	3	2	-	4	50	50	100	PC
15ZS08	Software Engineering Management	3	-	-	3	50	50	100	PC
15ZS09	Advanced Software Engineering	3	-	-	3	50	50	100	PC
15ZS10	Software Architecture	3	-	-	3	50	50	100	PC
15ZS__	Professional Elective 1 [#]	2	-	2	3	50	50	100	PE
15ZS52	Software Design and Development Laboratory	-	-	2	1	100	-	100	PC
Total 25 Hrs		17	4	4	21	400	300	700	
III SEMESTER									
15ZS__	Professional Elective 2	3	-	-	3	50	50	100	PE
15ZS__	Professional Elective 3	3	-	-	3	50	50	100	PE
15ZS__	Professional Elective 4	3	-	-	3	50	50	100	PE
15ZS__	Professional Elective 5	3	-	-	3	50	50	100	PE
15ZS__	Professional Elective 6	3	-	-	3	50	50	100	PE
15ZS53	XML and Web Services Laboratory	-	-	4	2	100	-	100	PC
15ZS71	Project Work I	-	-	6	3	100	-	100	EEC
Total 25 Hrs		15	-	10	20	450	250	700	
IV SEMESTER									
15ZS72	Project Work II	-	-	28	14	50	50	100	EEC
ELECTIVE THEORY COURSES (Six to be opted)									
Group - I									
15ZS22	User Interface Design	2	-	2	3	50	50	100	PE
15ZS23	Open Source Systems	2	-	2	3	50	50	100	PE
15ZS24	Computer Networks	2	-	2	3	50	50	100	PE
15ZS25	Data Intensive Computing Systems	2	-	2	3	50	50	100	PE
Group - II									
15ZS26	Systems Engineering	3	-	-	3	50	50	100	PE
15ZS27	Software Reliability	3	-	-	3	50	50	100	PE
15ZS28	Agile Software Development	3	-	-	3	50	50	100	PE
15ZS29	Software Metrics	3	-	-	3	50	50	100	PE
15ZS30	Formal Methods in Software Engineering	3	-	-	3	50	50	100	PE
15ZS31	Design Patterns	3	-	-	3	50	50	100	PE
15ZS32	Software Agents	3	-	-	3	50	50	100	PE
15ZS33	Decision Support Systems	3	-	-	3	50	50	100	PE
15ZS34	Program Analysis	3	-	-	3	50	50	100	PE
15ZS35	Professional Ethics	3	-	-	3	50	50	100	PE
15ZS36	Operating Systems	3	-	-	3	50	50	100	PE
15ZS37	Privacy Preserving Data Mining	3	-	-	3	50	50	100	PE
15ZS38	Data Integration	3	-	-	3	50	50	100	PE
15ZS39	Social Networks Data Analytics	3	-	-	3	50	50	100	PE

* Indicated is the minimum number of credits to be earned by a student.
To be taken from Elective Theory Courses under Group I

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

ONE CREDIT COURSE

15ZK01 Test Automation using Open Source Tools

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