

SREENIDHI INSTITUTE OF SCIENCE and TECHNOLOGY (AUTONOMOUS)**B.Tech. (Mechanical Engineering) 2018-19 : A18**

Course structure for B. Tech. I Year I Semester ME								
Sl.No	Course code	Name of the Course	L	T	P	C	Max. Marks	
							CIE	SEE
1	7HC04	Applied Physics	3	1	0	4	25	75
2	7B101	Engineering Mechanics	3	1	0	4	25	75
3	7HC06	Engineering Mathematics – I	3	1	0	4	25	75
4	7BC02	Engineering Graphics & Design	1	0	4	3	25	75
5	7HC02	English (Oral communication skills)	1	0	0	1	25	75
6	7HC64	Applied Physics Lab	0	0	3	1.5	25	75
7	7HC62	English (Oral communication skills) Lab	0	0	2	1	25	75
8	7B191	Technical Seminar I	0	0	2	1	100	
		Total	11	3	11	19.5	250	450

Course structure for B. Tech. I Year II Semester ME								
Sl.No	Course code	Name of the Course	L	T	P	C	Max. Marks	
							CIE	SEE
1	7HC03	Chemistry	3	1	0	4	25	75
2	7FC01	Problem Solving using C	3	0	0	3	25	75
3	7HC08	Engineering Mathematics – II	3	1	0	4	25	75
4	7BC01	Workshop/ Manufacturing practices (Theory)	1	0	0	1	25	75
5	7HC01	English (Reading, Listening and Writing)	1	0	0	1	25	75
6	7HC63	Chemistry Lab	0	0	3	1.5	25	75
7	7FC61	Problem Solving using C Lab	0	0	3	1.5	25	75
8	7BC61	Workshop/ Manufacturing practices lab	0	0	3	1.5	25	75
9	7HC61	English lab (Reading, Listening and Writing)	0	0	2	1	25	75
10	7B292	Technical Seminar II	0	0	2	1	100	
		Total	11	2	13	19.5	325	600

Course structure for B. Tech--II Year – I semester (3 rd Semester)								
Sl.No	Course code	Name of the Course	L	T	P/D	C	Max. Marks	
							CIE	SEE
1	7HC12	Engineering Mathematics –III	2	1	---	3	30	70
2	7B306	Thermodynamics	3	---	---	3	30	70
3	7B307	Mechanics of Solids	3	---	---	3	30	70
4	7B308	Materials Engineering	3	---	---	3	30	70
5	7B309	Fluid Mechanics and Hydraulic Machinery	3	---	---	3	30	70
6	7B310	Machine Drawing and Computer aided drawing Practice	1	---	4	3	30	70
7	7B362	Metallurgy Lab & Mechanics of Solids Lab	---	---	4	2	30	70
8	7B363	Fuels and Lubricants Lab	---	---	2	1	30	70
9	7B364	Fluid Mechanics and Hydraulic Machinery Lab	---	---	2	1	30	70
10	7HC21	Environmental Science and Ecology	2	0	0	0	30	70
11	7B393	Technical seminar-III	---	---	2	1	100	
		Total	17	1	14	23	400	700

Course structure for B. Tech--II Year – II Semester(4 th Semester)								
Sl.No	Course code	Name of the Course	L	T	P/D	C	Max. Marks	
							CIE	SEE
1	7B411	Manufacturing Processes	3	---	---	3	30	70
2	7B412	Applied Thermodynamics-I	3	---	---	3	30	70
3	7B413	Kinematics of Machinery	2	1	---	3	30	70
4	7AC48	Electrical and Electronics Engineering	2	---	---	2	30	70
5	OE	Open Elective-I	3	---	---	3	30	70
6	7ZC01	Management Science and Financial Accounting	2	---	---	2	30	70

7	7AC95	Electrical and Electronics Engineering lab	---	---	2	1	30	70
8	7B465	Manufacturing Processes Lab	---	---	2	1	30	70
9	7B494	Technical seminar-IV	---	---	2	1	100	
10	7B466	Comprehensive Viva-voce-I	---	---	2	1	30	70
11	**	Summer Industry Internship-I (Evaluation will be in III - I)	---	---	---	---	---	---
		Total	15	1	8	20	370	630

Course structure for B. Tech--III Year – I Semester (5 th Semester)								
Sl.No	Course code	Name of the Course	L	T	P/D	C	Max. Marks	
							CIE	SEE
1	7B514	Applied Thermodynamics-II	3	1	---	4	30	70
2	7B515	Design of Machine Members-I	3	1	---	4	30	70
3	7B516	Metal Cutting and Machine Tools	3	---	---	3	30	70
4	7B517	Dynamics of Machinery	2	1	---	3	30	70
5	OE	Open Elective-II	3	---	---	3	30	70
6	7H518	Quantitative Aptitude	1	1	---	2	30	70
7	7B567	Applied Thermodynamics Lab	---	---	2	1	30	70
8	7B568	Machine Tools Lab	---	---	2	1	30	70
9	7B569	Kinematics & Dynamics of Machines Lab	---	---	2	1	30	70
10	7B595	Technical Seminar-V	---	---	2	1	100	
11	** 7B570	Summer Industry Internship-I (Evaluation only)	---	---	---	1	30	70
		Total	15	4	8	24	400	700

Course structure for B. Tech--III Year – II Semester (6 th Semester)								
Sl.No	Course code	Name of the Course	L	T	P/D	C	Max. Marks	
							CIE	SEE
1	7B618	Heat Transfer	3	1	---	4	30	70
2	7B619	Design of Machine Members-II	3	1	---	4	30	70

3	7B620	Metrology and Instrumentation	3	---	---	3	30	70
4	7B621	CAD/CAM	3	---	---	3	30	70
5	OE	Open Elective-III	3	---	---	3	30	70
7	7H619	Logical Reasoning	1	1	---	2	30	70
8	7HC63	Soft skills	--	--	2	1	30	70
9	7B671	CAD/CAM Lab	---	---	2	1	30	70
10	7B672	Heat Transfer Lab	---	---	2	1	30	70
11	7B673	Metrology Lab	---	---	2	1	30	70
12	7B674	Group Project	---	---	4	2	30	70
13	7B675	Comprehensive Viva-voce-II	---	---	---	1	30	70
14	***	Summer Industry Internship-II (Evaluation will be in IV - I)	---	---	---	---	---	---
		Total	16	3	12	26	360	840

Course structure for B. Tech--IV Year – I Semester (7th Semester)

Sl.No	Course code	Name of the Course	L	T	P/D	C	Max. Marks	
							CIE	SEE
1	7B722	Finite Element Analysis	2	1	---	3	30	70
5	7B723	Additive Manufacturing Processes	2	---	---	2	30	70
4	7B724	Robotics	2	1	---	3	30	70
6	PE	Professional Elective-I	3	---	---	3	30	70
6	PE	Professional Elective-II	3	---	---	3	30	70
8	7B776	Production Drawing Practice Lab	---	---	2	1	30	70
9	7B777	Instrumentation Lab	---	---	2	1	30	70
10	7B778	CAE Lab	---	---	2	1	30	70
11	7B779	Project-I	---	---	4	2	100	
12	*** 7B780	Summer Industry Internship-II (Evaluation only)	---	---	---	1	30	70
		Total	12	2	10	20	370	630

Course structure for B. Tech--IV Year – II Semester (8th Semester)

Sl.No	Course code	Name of the Course	L	T	P/D	C	Max. Marks	
							CIE	SEE
1	PE	Professional Elective-III	3	---	---	3	30	70
2	PE	Professional Elective-IV	3	---	---	3	30	70
3	PE	Professional Elective –V	3	---	---	3	30	70
4	7B881	Project-II	---	---	10	5	30	70
		Total :	9	0	10	14	120	280

CODE	Professional Elective-I
7B725	Design and Analysis of Experiments
7B726	Operations Research
7B727	Thermal Turbo machinery
7B728	Nanotechnology
7B729	Mechatronics

CODE	Professional Elective-II
7B730	Power Plant Engineering
7B731	Production Planning and Control
7B732	Advanced Materials and Processing
7B733	Artificial Intelligences (AI) for Mechanical Engineering

CODE	Professional Elective-III
7B834	Quality and Reliability Engineering
7B835	Renewable Energy Systems Energy management Systems
7B836	Product Design
7B837	Non-Destructive Testing Of Materials

CODE	Professional Elective-IV
7B838	Design & Applications of Engineering Materials
7B839	Automobile Engineering
7B840	Advanced Manufacturing Processes

7B841	Mechanics Manufacturing Methods of Composite Materials
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CODE	Professional Elective-V
7B842	Design Optimization
7B843	Jet propulsion and Rocket Engineering
7B844	Computational Fluid Dynamics
7B845	Carbon based nanostructures and their applications
7B846	Flexible Manufacturing System & Machine Vision

CODE	Open Elective-I
7EC01	Data Structures
7GC46	Biology for Engineers
7ZC22	Basics of Entrepreneurship
7ZC25	Indian Polity and Economy
7ZC20	Product and Services
7ZC05	Banking insurance and Risk Management
7BC51	Smart Materials
7CC54	Fundamental of Digital Circuits and Microprocessors

CODE	Open Elective-II
7ZC24	Innovation and Design Thinking
7ZC26	Ecology and Disaster Management
7ZC19	Entrepreneurship Project Management and Structured Finance
7FC03	Python Programming
7EC65	Java Programming
7AC46	Control System Engineering
7CC35	Introduction to VLSI & Embedded System

CODE	Open Elective-III
7FC23	Data Base Systems
7ZC23	Advance Entrepreneurship
7ZC27	Indian history, Geography and Culture

7ZC15	Financial Institutions, Markets and Services
7AC44	Fundamentals of Measurements and Instrumentation
7DC55	Internet of things(IOT)