School of Engineering
Department of Mechanical Engineering
B. Tech in Mechanical Engineering

GALGOTIAS UNIVERSITY

Program Structure: B. Tech Mechanical Engineering

Semester-1							
Sl. No.	Course Code	Subject Name	Course Type	L	T	P	C
1	G2UA120B	Basic Electrical and Electronics Engineering	B	3	0	1	4
2	L1UB120T	YOGA	T	2	0	0	0
3	G3UB101B	Engineering design and prototyping	B	3	0	1	4
4	C1UC122B	Engineering Mathematics-I	B	3	0	1	4
5	E2UC102C	Programming for problem solving	C	2	0	2	4
6	C1UB129T	Chemical and biological materials	T	3	0	0	3
				16	0	5	19

Semester-2								
Sl. No.	Course Code	Subject Name	Course Type	L	T	P	S	C
1	C1UD124B	Semiconductor and Optoelectronics devices	B	3	0	1		4
2	G3UB201T	Engineering Mechanics	T	3	1	0		4
3	O1UA104B	Communication skill for engineers	B	2	0	1		3
4	C1UB120T	Environment Impact analysis	T	0	0	0		0
5	C1UC222B	Engineering Mathematics II	B	3	0	1		4
6	E2UC201C	OOPS	C	3	0	2		5
7	G3UB201B	Engineering workshop	C	1	0	2	1	3
				15	1	7	1	23

		Semester 3						
Sl. No.	Course Code	Course Title	Course Type	L	T	P		C
1	G3UB301T	Applied Engineering Mechanics	T	2	1	0		3
2	G3UB302T	Engineering Thermodynamics	T	2	1	0		3
3	G3UB303B	Manufacturing Processes I	B	3	0	2		4
4	G3UB304B	Material Science	B	2	0	2		3
5	C1UC321T	Functions of complex variables and Transforms	T	3	0	0		3
6	GIUA306B	Design thinking-I	T	1	0	1		0
7	K1UC320B	Communication competency and aptitude building-1	B	1	0	1		2
8	G3UB305B	Machine Drawing with Solid Works	C	2	0	2	1	4
		Total		16	2	8	1	22

		Semester 4					
Sl. No.	Course Code	Course Title	Course Type	L	T	P	C
1	G3UB401B	Mechanics of Material	B	2	1	2	4
2	G3UB402C	Fluid Mechanics	B	2	1	2	5
3	G3UB403B	Manufacturing Processes II and Metrology	B	3	0	2	4
4	G2UA403T	Sensors and transducers (Minor-1)	T	3	0	0	3
5	O1UA421B	Communication competency and Aptitude Building 2	T	1	0	1	2
6	G3UB404B	Applied Thermodynamics	T	3	0	1	4
7	C1UC424B	Numerical methods	T	2	0	1	3
8	G3UA601B	Design Thinking-II	B	1	0	1	0
		Total		16	2	7	25
		Semester 5					
Sl. No.	Course Code	Course Title	Course Type	L	T	P	C
1	G3UB501T	Kinematics of Machines	T	2	1	0	3
2	G3UB502C	Machine Design	C	3	0	2	1	5

Sl. No.	Course Code	Course Title	Course Type	L	T	P		C
3	G3UB503T	Automobile Engineering (minor-2)	T	2	0	0		2
4	G3UB504B	Heat and Mass Transfer	I	2	1	2		4
5	GIUA306B	Design thinking-I	T	1	0	1		0
6	G3UB506T	CAM, and Automation	T	2	0	0		2
7	G3UB507T	Augmented Reality /Virtual Reality (minor-3)	T	3	0	0		3
8	K1UC523B	Communication Competency and Aptitude Building -III	I	1	0	2		2
		Total		**16**	**2**	**7**		**21**

Semester 6

Sl. No.	Course Code	Course Title	Course Type	L	T	P		C
1	G3UB601B	Refrigeration and Air Conditioning	T	2	1	2		4
2	G3UB602B	Dynamics of Machines	B	2	1	2		4
3	G3UB604C	FEM (minor-4)	C	2	1	2	1	5
4	G3UB603B	Robotics and Automation (minor-5)	B	3	0	1		4
5	G3UB606T	Design of Transmission systems	T	3	0	0		3
6	G3UB605T	Automatic Control Systems	T	3	0	0		3
7	G3UA601B	Design Thinking-II	B	1	0	1		0
8	O1UA602B	Soft Skill - 6 (Campus to Corporate)	B	1	0	2		2
		Total		**17**	**3**	**10**		**25**

Semester 7

Sl. No.	Course Code	Course Title	Course Type	L	T	P		C
1	G3UB702T	Computer Integrated Manufacturing	T	3	0	0		3
2	G3UB703T	Mechanical Vibrations	T	3	0	0		3
3	G3UB704T	Total Quality Management	T	3	0	0		3

Sl. No.	Course Code	Course Title	Course Type	L	T	P		C
4	G3UB707T	Flexible Manufacturing Systems	T	3	0	0		3
9	G1UA705R	Summer Internship		0	0	0		2
10	G3UC704R	Capstone Project- Phase I/Industrial Internship Domain 5		-	-	-		3
		Total		**12**	**0**	**0**		**17**
		Semester 8						
Sl. No.	**Course Code**	**Course Title**	**Course Type**	**L**	**T**	**P**		**C**
1	G3UB801R	Capstone Project- Phase II		-	-	-		9
		Total						**9**
		Total Program Credit					**163**	

Elective Course Baskets

		Minor Elective Courses - Stream wise						
Sl No	**Course Code**	**Energy Engineering**		**L**	**T**	**P**		**C**
1		Energy conservation and Management		3	0	0		3
2		Renewable energy systems		3	0	0		3
3		Energy Engineering Fundamental		3	0	0		3
4		Solar Energy Systems		3	0	0		3
5		Waste management and energy generation technologies		3	0	0		3
6		Solar architecture and energy-efficient building		3	0	0		3
7		Energy Resources, Economics & Environment		3	0	0		3
8		Energy Storage and Technology		3	0	0		3

Sl No			L	T	P		C
9		Cryogenics	3	0	0		3
10		Fuel Technology	3	0	0		3
Sl No		**Smart Manufacturing & 3D Machining**	**L**	**T**	**P**		**C**
1		Introduction to product design & digital drawing	3	0	2		4
2		Fracture Mechanics	3	0	2		4
3		Advanced Welding Technology	3	0	2		4
4		Solid modelling & additive manufacturing	3	0	2		4
5		Sensors and Controls	3	0	2		4
6		CNC machines tool	3	0	2		4
7		Entrepreneurship and Management Functions	3	0	0		3
8		Mechanical Metllurgy	3	0	2		4
9		Optimization Techniques and Applications	3	1	0		4
10		Plastic Technology	3	0	0		3
Sl No		**Mechatronics**	**L**	**T**	**P**		**C**
1		Sensors and Actuators	3	0	0		3
2		Automatic Control Systems	3	0	0		3
3		Design of Mechatronics System	3	0	0		3
4		Modelling and Simulation of Mechatronics System	3	0	0		3
5		Computer Integrated Manufacturing	3	0	0		3
6		Robotics: Analysis and Systems	3	0	0		3
7		Drives and Control system for Automation	3	0	0		3
8		Process Control & Automation	3	0	0		3

9		Flexible Manufacturing Systems		3	0	0		3
10		Design of Mechanisms and Manipulators		3	0	0		3