STRUCTURE OF CURRICULUM / COURSE DISTRIBUTION

COMPULSORY COURSES

YEAR / SEMESTER	COURSES	CREDITS	HOURS	PREREQUISITES
1 / 1	Calculus (1)	3	3	
	General Physics (1)	3	3	
	Physics Laboratory (1)	1	3	
1 / 2	Calculus (2)	3	3	Calculus (1)
	General Physics (2)	3	3	
	Physics Laboratory (2)	1	3	
	Statics	3	3	
1/1 & 1/2	Machine Workshop	1	3	
	Engineering Graphics	1	1	
	Computer-Aided Design Engineering Drawing	1	2	
	Programming	3	3	
2 / 1	Engineering Mathematics (1)	3	3	Calculus (2)
	Mechanics of Materials	3	3	Statics
	Manufacturing Processes	3	3	
	Basic Electrical Engineering	3	3	
	Dynamics	3	3	Statics
2 / 2	Engineering Mathematics (2)	3	3	Engineering Mathematics (1)
	Thermodynamics (1)	3	3	
	Instrumentation Laboratory	1	2	

YEAR / SEMESTER	COURSES	CREDITS	HOURS	PREREQUISITES
	Kinematics of Machines	**3**	**3**	
	Mechanical Materials Engineering (1)	**3**	**3**	

3 / 1	Mechanical Design (1)	3	3	
	Fluid Mechanics	3	3	
	Material Laboratory	1	2	
	Solid Mechanics Laboratory	1	2	
	Feedback Control of Dynamic Systems (1)	3	3	
3 / 2	Heat Transfer	3	3	
	Senior Project (I)	1	-	
	Energy Engineering Laboratory	1	3	
	Automation Engineering Laboratory	1	3	
4 / 1	Senior Project (II)	1	-	

PROFESSIONAL ELECTIVE COURSES

YEAR / SEMESTER	COURSES	CREDITS	HOURS	PREREQUISITES
2 / 1	Application of Computer Programming	3	3	
	Computer Mechanical Graphics	3	3	
2 / 2	Electronics	3	3	Basic Electrical Engineering
3 / 1	The Application of Computer-Aided Engineering for Biomechanics	3	3	Thermodynamics (1)、Mechanics of Materials
	Polymeric Materials and Processing	3	3	
	Welding	3	3	
	Electronic Packaging	3	3	
	Thermodynamics (2)	3	3	
	Internal Combustion Engines	3	3	
3 / 2	Feedback Control of Dynamic Systems (2)	3	3	
	Mechanical Design (Ⅱ)	3	3	
	Mechanical Materials Engineering (2)	3	3	
	Engineering Mathematics (3)	3	3	
	Automotive Engineering	3	3	

4 / 1	Practice school	4		
	Vibration Analysis	3	3	
	Numerical Analysis	3	3	
	Corrosion Engineering	3	3	
	Plastic Processing Mold Engineering	3	3	
	Combustion	3	3	
	Refrigeration & Air-conditioning	3	3	
4 / 2	Principles and Practices of Deep Learning	3	3	
	Mechanics of Composite Material	3	3	
	Computer-Aided Design	3	3	
	Finite Element Method	3	3	
	Heat Treatment	3	3	
	Welding Process and System Design	4	4	
	Lubrication Theory and Its Applications	3	3	
	Fluid Machinery	3	3	
	Intermediate Heat Transfer	3	3	

GENERAL ELECTIVE COURSES

YEAR / SEMESTER	COURSES	CREDITS	HOURS	PREREQUISITES
3 / 1	English Speaking and Presentation (1)	2	2	
3 / 2	English Speaking and Presentation (2)	2	2	
4 / 1	Welding Metallurgy	3	3	
	Computer Aided Manufacturing	3	3	
	Materials and Manufactures of Solar Cells.	3	3	
	Guided Reading on English Technical Reports	3	3	
	Intermediate Fluid Mechanics	3	3	
	Intelligent Control Systems	3	3	
	Experimental Mechanics for Orthopaedics	3	3	
	Modeling and Analysis in Materials Processing and Advanced Injection Molding	3	3	
	Surface Analysis Technology	3	3	
4 / 2	Senior Project (III)	3	3	
	Computational Fluid Dynamic	3	3	
	Theory and Practice of Modal Analysis	3	3	
	Mechanism Design and Applications	3	3	
	Principles and Practices of Nondestructive Testing	3	3	

YEAR / SEMESTER	COURSES	CREDITS	HOURS	PREREQUISITES
	Optimum Design and Principle	**3**	**3**	