

Study Plans

Major : 80201 Science in Mechanical Engineering

Edition : 38

Total Hours : 155

Level : First			
Course No.	Course Name	prerequisite	prerequisite Name
105115-2	History of the Kingdom		
2028110-3	Mathematics (١)		
204102-3	General Chemistry		
802201-3	Introduction to Computer Programming		
990112-2	Islamic Culture (Morals and Values)	990111-2	Fundamentals of Islamic Culture
999805-2	Intensive English Intensive (١)		

Level : Second			
Course No.	Course Name	prerequisite	prerequisite Name
2028120-3	Mathematics (٢)	2028110-3	Mathematics (١)
203205-4	Physics	2028110-3	Mathematics (١)
8021201-2	Engineering Drawing		
990211-2	Arabic Language Skills		
990311-2	University Study Skills		
999806-2	Intensive English Intensive (٢)		

Level : Third			
Course No.	Course Name	prerequisite	prerequisite Name
2022101-3	Multi Variable Calculus	2028120-3	Mathematics (٢)
8012101-2	Fundaments of Engineering Economy		
8012103-3	Statics	2028120-3	Mathematics (٢)
8022101-3	Introduction to Engineering Design (١)	999806-2	Intensive English Intensive (٢)
8032101-3	Basics of Electrical Circuits	203205-4	Physics
999816-2	English Language for Engineering		

Level : Forth			
Course No.	Course Name	prerequisite	prerequisite Name
2022102-4	Mathematical Methods	2022101-3	Multi Variable Calculus
8022201-2	Production Technology		
8022202-2	Introduction to Engineering Design ٢	8022101-3	Introduction to Engineering Design (١)
8022203-3	Dynamics	8012103-3	Statics
8022204-2	Mechanical Drawing	8021201-2	Engineering Drawing
8022205-3	Thermodynamics	203205-4	Physics
990111-2	Fundamentals of Islamic Culture		

Level : Fifth			
Course No.	Course Name	prerequisite	prerequisite Name
2023104-2	Linear Algebra	2028120-3	Mathematics (٢)
2028102-4	Differential Equations	2022101-3	Multi Variable Calculus
8023101-3	Mechanics of Machines	8022203-3	Dynamics
8023102-3	Materials Science	204102-3	General Chemistry
990113-2	Health Education		
990312-2	Innovation and Entrepreneurship		
990412-2	Digital Citizenship		

Level : Sixth			
Course No.	Course Name	prerequisite	prerequisite Name
2023206-3	Numerical Analysis	2028102-4	Differential Equations
8023201-3	Mechanics of Materials	2028102-4	Differential Equations
		8023102-3	Materials Science
8023202-3	Mechanical Vibrations	2028102-4	Differential Equations
		8022203-3	Dynamics
8023203-1	Mechanical Engineering Lab ١	8022205-3	Thermodynamics
		8023102-3	Materials Science
8023204-3	Fluid Mechanics	203205-4	Physics
990313-2	Islamic Culture (The social system in Islam)	990112-2	Islamic Culture (Morals and Values)
990314-2	French Language		
990315-2	Chinese Language		
999809-2	Presentation Skills		
999814-2	IELTS Preparation		
999815-2	Academic Writing		
999821-2	English and the ٢١ st century skills		

Level : Seventh			
Course No.	Course Name	prerequisite	prerequisite Name
2024116-3	Probability and Statistics	2028120-3	Mathematics (٢)
8024101-3	Manufacturing Processes	8022201-2	Production Technology
		8023102-3	Materials Science
8024102-3	Heat Transfer	2023206-3	Numerical Analysis
		8022205-3	Thermodynamics
8024103-3	System Dynamics and Control	8023101-3	Mechanics of Machines
		8023202-3	Mechanical Vibrations
8024104-3	Machine Elements Design	8022204-2	Mechanical Drawing
		8023201-3	Mechanics of Materials
990414-2	Islamic Culture (Human Rights)	990313-2	Islamic Culture (The social system in Islam)

Level : Eighth			
Course No.	Course Name	prerequisite	prerequisite Name
8024201-3	Hydraulic Machines	8023204-3	Fluid Mechanics
8024202-3	Refrigeration and Air Conditioning	8022205-3	Thermodynamics
8024203-3	Measurements & Measuring Instruments	8023204-3	Fluid Mechanics
8024204-1	Mechanical Engineering Lab ٢	8024102-3	Heat Transfer
		8024103-3	System Dynamics and Control
8024205-3	Machine Design	8024104-3	Machine Elements Design
8024206-3	Systems of Renewable Energy	8024102-3	Heat Transfer
8024207-2	Practical Summer Training		

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Level : Ninth				Level : Tenth			
Course No.	Course Name	prerequisite	prerequisite Name	Course No.	Course Name	prerequisite	prerequisite Name
8025101-2	Senior Project (١)	8022202-2	Introduction to Engineering Design ٢	8025201-2	Senior Project (٢)	8025101-2	Senior Project (١)
8025102-2	Engineering Management	2024116-3	Probability and Statistics	8025202-3	Power Plants and Desalination	8012101-2	Fundaments of Engineering Economy
8025103-3	Computer Aided Design	8024205-3	Machine Design			8024102-3	Heat Transfer
8025104-3	Fluid Dynamics	8023204-3	Fluid Mechanics	8025203-1	Mechanical Engineering Lab ٣	8024201-3	Hydraulic Machines
8025105-3	Turbo Machines	8023204-3	Fluid Mechanics			8024203-3	Measurements & Measuring Instruments
8025106-3	Applied Heat Transfer	8024102-3	Heat Transfer	8025204-3	Internal Combustion Engines	8024102-3	Heat Transfer
8025107-3	Energy Conversion	8022205-3	Thermodynamics	8025205-3	Energy Efficiency	8024206-3	Systems of Renewable Energy
8025108-3	Plasticity	8023201-3	Mechanics of Materials	8025206-3	Design of Pipe Networks	8024201-3	Hydraulic Machines
8025109-3	Tribology	8022204-2	Mechanical Drawing	8025207-3	Renewable Energy Powered Desalination Processes	8024206-3	Systems of Renewable Energy
8025110-3	Composite Materials	8023201-3	Mechanics of Materials	8025208-3	Applied Renewable Energy Technologies	8024206-3	Systems of Renewable Energy
8025111-3	Fracture in Engineering Materials	8023201-3	Mechanics of Materials	8025209-3	Reverse Engineering	8024205-3	Machine Design
8025112-3	Finite Elements Analysis	2023206-3	Numerical Analysis	8025210-3	Materials Handling Systems	8024205-3	Machine Design
8025113-3	Nanomaterials and Nanotechnology	8023102-3	Materials Science	8025211-3	Operations Research	8024101-3	Manufacturing Processes
8025114-3	Robotics	8023101-3	Mechanics of Machines	8025212-3	Design Optimization	8024205-3	Machine Design
8025115-3	Engineering analysis	2022101-3	Multi Variable Calculus	8025213-3	Advanced Manufacturing Technology	8024101-3	Manufacturing Processes
		2028102-4	Differential Equations	8025214-3	Recycling of Industrial Wastes	8023102-3	Materials Science
8025116-3	Modeling and Simulation	8024103-3	System Dynamics and Control			8024101-3	Manufacturing Processes
8025117-3	Mechatronics System Design	8024103-3	System Dynamics and Control	8025215-3	Industrial Automation	8024103-3	System Dynamics and Control
8025118-3	Industrial Process Control	8024103-3	System Dynamics and Control	8025216-3	Programmable Logic Controllers ^٤	8024103-3	System Dynamics and Control
				8025217-3	System Theory	8024103-3	System Dynamics and Control
						8025115-3	Engineering analysis