

Mechanical Engineering Curriculum for the Class of 2023

May 23, 2023 Passed by the Departmental Curriculum Committee at its 3rd meeting, Spring semester, Academic Year 2022-23

May 23, 2023 Passed by the Departmental Affairs Meeting at its 4th meeting, Spring semester, Academic Year 2022-23

Approved at the 3rd College Curriculum Meeting of academic year 111, on May 31, 2023

Approved at the 4th University Curriculum Meeting of academic year 111, on Jun 14, 2023

	Freshman				Sophomore				Junior				Senior				
	Fall		Spring		Fall		Spring		Fall		Spring		Fall		Spring		
Common Required Courses (6 credits)	physical education (I)	0/2	physical education (II)	0/2													
	Freshman English(I)	2/2	Freshman English(II)	2/2	Freshman English(III)	1/2	Freshman English(IV)	1/2									
General Education Courses (22 credits)	Core course	2/2	Core course	2/2	Core course	2/2	Elective course	2/2	Elective course	2/2	Elective course	2/2					
	Core course	2/2	Core course	2/2	Core course	2/2	Elective course	2/2	Elective course	2/2							
Required Courses (50 credits)	Engineering Graphics and Computer Practice	1/3	Computer Aided Drawing Practice	1/3	Engineering Materials and Manufacturing Processes	3/3	Experiments on Electrical and Mechanical Engineering	1/3	Machine Design	3/3	Mechatronics	3/3					
	Experimental Physics (I)	1/3	Statics and Mechanics of Materials	3/3	Dynamics	2/2	Thermal Fluid Engineering (I)	2/2	Project of Mechanical Engineering Design	3/3	Senior Projects★	1/3					
	Language Programming★	3/3	Experimental Physics (II)	1/3	Electical Engineering	3/3	Engineering Statistics★	3/3	Thermal Fluid Engineering (II)	2/2							
			Calculus★	4/4	Programmable Logic Controller★	2/2											
			Physics	3/3	Theory of Mechanisms	2/2											
				Engineering Mathematics★	3/3												
Required Elective Courses (7 credits)	Creativity Engineering	2/2					Introduction to Smart Automation★	2/2									
	3D Printer Technology★	3/3															
Professional Elective Courses							Micro-processor	3/3	Sensor Principle and Application	2/2	Machine Vision and Inspection	2/2	Tolerance Design	2/2	Principle and Application of Laser	3/3	
							Introduction of machining tools	3/3	Automatic Control Systems	2/2	Intelligent robot★	2/2	Computer Numerical Control Machine Tools	3/3	Signal Processing	3/3	
							Introduction of precision machines	2/2	Opto-Mechanical Design	3/3	Design of Opto-Mechatronic Systems	2/2	Non-traditional Machinning	2/2	Quality Control and Reliability Engineering	3/3	
							Introduction to Unmanned Aerial Vehicles	3/3	Fundamental Optics	3/3	Human-Computer Interaction Design	3/3	Intelligent Factory	3/3	Business Experience★	3/3	
							An Introduction to Aeronautical Engineering	2/2	Software Engineering	3/3	Servo Control System	3/3	Manufacturing Practice	3/3	Factory Practice★	3/3	
									Precision Machining	2/2	Computer Aided Engineering	3/3	Employment Ethics	3/3	Work Ethics	3/3	
									Computer-Aided Manufacturing	3/3	Precision Measurement	2/2	Internships★	3/3	Overseas Professional Internship	2/2	
									Flight Principles and Simulator Implementation	2/2	Principles & Applications of Precision Machine Design	3/3					
											Airplane Structure and Processing of Composite Material	2/2					
										Aircraft Engines and Gas Turbines	2/2						

Required Credits : 78 (Including 50 Credits of Professional Required Courses, 6 Credits of English Course and 22 Credits of General Education Courses which include 12 Credits of Core General Education Courses and 10 Credits of Elective General Education Courses.)

Elective Credits : 50 (Including 7 Credits of Department Required Courses, 34 Credits of Department Elective Course and 9 Credits in Other Department)

Graduation Credits : 128 Credits