

MUST Curriculum Guide for Undergraduate Students for Academic Years 2020-2023, Department of Mechanical Engineering

Course title	1st semester		2nd semester	
	Cr.	hr.	Cr.	hr.
Physical Education	1	2	1	2
Out-of-Campus Education Military Training (I) (II)	0	2	0	2
Chinese Reading and Expressions (I) (II)	2	2	2	2
English (I) (II)	2	2	2	2
Ethics for Engineers	1	1	1	1
Calculus (I) (II)	3	3	3	3
Physics (I) (II)	2	2	2	2
Physics Laboratory (I) (II)	1	2	1	2
Chemistry	2	2	2	2
Manufacturing Processes	3	3	3	3
Introduction to programming	2	2	2	2
Shop Practice (I)	1	3	1	3
Introduction to Mechanics	2	2	2	2
Applied Mechanics (Statics)	3	3	3	3
Mechanical Drawing	2	3	2	3
Shop Practice (II)	1	3	1	3
Mechanical Materials	3	3	3	3
Control Technology in PLC with Lab	1	2	1	2
Introduction and application of artificial intelligence	2	2	2	2
Summation	22	28	23	30

Course title	1st semester		2nd semester	
	Cr.	hr.	Cr.	hr.
Physical Education	1	2	1	2
The Theory of History and Civilization	2	2	2	2
Law, Politics and Society	2	2	2	2
Chinese Reading and Expressions (III)	1	1	1	1
Technical English (I) (II)	2	2	2	2
Classified General Education	2	2	2	2
Computer Aided Mechanical Drafting	2	3	2	3
Engineering Mathematics (I)	3	3	3	3
Thermodynamics	2	2	2	2
Dynamics	2	2	2	2
Electrical Machinery Practice	2	2	2	2
Hydraulics and Pneumatics Practice	3	3	3	3
Mechanism	3	3	3	3
Mechanics of Materials (I)	3	3	3	3
Automotive Control Practice	3	3	3	3
Precision Instrument and Parts Inspections	2	2	2	2
Electronics Practice	2	2	2	2
Mechatronics and Practice	2	2	2	2
Summation	21	23	22	24

Course title	1st semester		2nd semester	
	Cr.	hr.	Cr.	hr.
Classified General Education	2	2	2	2
English Proficiency Training	1	3	1	3
Material Testing	2	3	2	3
CNC Machine Tool Practice	2	3	2	3
Design of Machine Elements	3	3	3	3
Field Thermal Experiment	1	2	1	2
Mechanical Design and Drawing	2	3	2	3
Project (I) (II)	1	1	1	1
Summation	9	12	7	9
The Microprocessor Practice	3	3	3	3
Quality Control	3	3	3	3
Introduction to green technique and engineering	3	3	3	3
Engineering Mathematics (II)	3	3	3	3
Heart Treatment	3	3	3	3
Surface Engineering	3	3	3	3
Pneumatic Control Technology	3	3	3	3
Computer-Aided Design	3	3	3	3
Semiconductor Manufacturing Process and Equipments	3	3	3	3
Robotic Engineering	3	3	3	3
Computer-Aided Manufacturing	3	3	3	3
Graphic Language Design	3	3	3	3
Technology in Reverse Engineering	3	3	3	3
System Integration Practice	3	3	3	3
Technology in Laser Manufacturing	3	3	3	3

Item	Cr.	hr.
General Education Courses	30	33
Basic Professional Courses	18	20
Required Professional Courses	57	71
Elective Professional Courses	23	23
Out-of-Campus Education Military Training	0	3
Total	128	150

C/B = Compulsory / Elective  
Cr./hr. = Credit / Hour

Remarks:  
1. The university requires students to achieve basic competencies and meet graduation requirements.  
2. Students are required to take 4 hours of Service Education courses (0 credit) during their first year.  
3. In the first three years, students must take 16-30 credits per semester, and 2-30 credits per semester in the 4th year.  
4. Minimum credits required for graduation are 128 credits (105 required credits and at least 23 elective credits).  
5. No fewer than 11 professional elective credits are required with the exclusion of credits for inter-disciplinary programs.  
6. Students choosing an off-campus internship program are not allowed to take any of the courses.  
7. The elective courses in the tables are for reference and subject to change as necessary.  
8. Students having graduated from a foreign country, including Hong Kong and Macau, with the equivalent of the second year of high school study of the ROK's high school sophomore level, or with a high school equivalent degree, need to take 140 credits including 105 compulsory credits, and at least 23 elective credits (including inter-departmental elective credits), while the program can be extended up to 3 academic years.