

Dept. in which offered (*1)	Subject Subject labeled by ● will be provided in English Subject labeled by ■ will be provided in Japanese/English	Semester, IMAC-U (Japanese)	Hrs. In total	Credits	Registration restrictions apply	Subject Type (*2)	Course										Registration (For courses at left) ☆: Required ⊕: Recommended for course(*3) ○: Elective Blank: Auditable Subject
							Mechanical Systems	Finemechanics	Robotics	Aerospace Engineering	Quantum Science and Energy Engineering	Environment and Energy Engineering	Mechanical / Biomedical Engineering	International Mechanical and Aerospace Engineering Course			
M	Heat Transfer	●	5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Heat and Mass Transfer		5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Transform Phenomena		7(5)	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Theory of Elasticity		5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Manufacturing Engineering and Technology I	●	5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Manufacturing Engineering and Technology II		5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Electrical and Electronic Circuit I		5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Electrical and Electronic Circuit II		5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Laboratory Experiment I	■	5	30	1		Common	☆	☆	☆	☆	☆	☆	☆	☆	☆	
M	Seminar II	■	5	30	1		Common	☆	☆	☆	☆	☆	☆	☆	☆	☆	
M	Production Process Practice	■	5	30	1		Common	☆	☆	☆	☆	○	○	☆	☆	☆	
M	Computer Seminar II		5	30	1	○	Common	○	○	○	○	○	○	○	○	○	
M	Fundamentals of Information Science I		5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Fundamentals of Information Science II		5	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Space Engineering		5	30	2	○	Course Elective	○	○	○	⊕	○	○	○	○	○	
M	Biomechanical Engineering		5	30	2	○	Course Elective	○	○	○	○	○	○	⊕	○	○	
M	Introduction to Aerospace Engineering		5	30	2	○	Course Elective	○	○	○	⊕	○	○	○	○	○	
M	Introduction to Quantum Science and Energy Systems		5	30	2	○	Course Elective					☆				☆	(Supplemental 3)
M	Introduction to Energy and Environmental Technology		5	30	2	○	Course Elective						☆			☆	(Supplemental 3)
M	Multidisciplinary Internship (Supplemental 4)		5		1												
M	Physical Chemistry of Interface		8(6)	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Environmental Biology		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Computational Fluid Dynamics		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Compressible Fluid Dynamics		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Computational Mechanics		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Strength and Fracture Materials		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Machine Design I		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Machine Design II		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Robotics I		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Robotics II		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Measurement and Instrumentation I		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Measurement and Instrumentation II		6	30	2	○	Basic II	○	○	○	○	○	○	○	○	○	
M	Laboratory Experiment II	■	6	30	1		Common	☆	☆	☆	☆	☆	☆	☆	☆	☆	
M	Design and Drawing II	■	6	30	1		Common	☆	☆	☆	☆	○	○	☆	☆	☆	
M	Aircraft Design	●	6	30	2	○	Course Elective	○	○	○	⊕		○	○	○	○	
M	Nuclear Energy Physics		6	30	2	○	Course Elective	○	○	○	○	⊕	○	○	○	○	

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		Hrs. In total	Credits			Mechanical Systems	Finemechanics	Robotics	Aerospace Engineering	Quantum Science and Energy Engineering	Environment and Energy Engineering	Mechanical / Biomedical Engineering	International Mechanical and Aerospace Engineering Course			
M	Global Energy Policy	6	30	1	○	○	○	○	○	○	⊕	○	○	○		
M	Radiochemistry	6	30	2	○	○	○	○	○	○	⊕	○	○	○		
M	Neutron Transport I	6	30	2	○	○	○	○	○	○	⊕	○	○	○		
M	Geomechanics	6	30	2	○	○	○	○	○	○	⊕	○	○	○		
M	Energy Conversion System Engineering	7	30	2	○	○	○	○	○	○	○	○	○	○		
M	Tribology	7	30	2	○	○	○	○	○	○	○	○	○	○		
M	Geoenvironmental Chemistry	7	30	2	○	○	○	○	○	○	○	○	○	○		
En	Introduction to Electronic Engineering	7	30	2	○	○	○	○	○	○	○	○	○	○		
En	Introduction to Materials Science	7	30	2	○	○	○	○	○	○	○	○	○	○		
En	Introduction to Environmental Engineering	7	30	2	○	○	○	○	○	○	○	○	○	○		
En	Introduction to Intellectual Property Right	7	15	1	○	○	○	○	○	○	○	○	○	○		
En	Introduction to Biomedical Engineering	7	30	2	○	○	○	○	○	○	○	○	○	○		
En	Engineering Ethics	7	15	1	○	○	○	○	○	○	○	○	○	○		
En	English Communications in Technology II	7	30	2	○	○	○	○	○	○	○	○	○	○		
M	Surface Science and Engineering	7	30	2	○	○	○	⊕	○	○	○	○	○	○		
M	Combustion Engineering	7	30	2	○	○	○	○	⊕	○	○	○	○	○		
M	Neutron Transport II	7	30	2	○	○	○	○	○	⊕	○	○	○	○		
M	Nuclear Reactor Safety and Design	7	30	2	○	○	○	○	○	⊕	○	○	○	○		
M	Radiation Protection and Safety Engineering	7	30	2	○	○	○	○	○	⊕	○	○	○	○		
M	Fuels and Materials of Nuclear Energy Systems	7	30	2	○	○	○	○	○	⊕	○	○	○	○		
M	Reservoir Engineering	7	30	2	○	○	○	○	○	○	⊕	○	○	○		
M	Material Science for Energy	7	30	2	○	○	○	○	○	○	⊕	○	○	○		
M	Energy and Resources	7	30	2	○	○	○	○	○	○	⊕	○	○	○		
M	Nuclear Chemical & Environment Engineering	8	30	2	○	○	○	○	○	⊕	○	○	○	○		
M	Plant Visit (Supplemental 1)				Common	☆	☆	☆	☆	○	○	☆	○	○		
M	Industrial Practice				Common					○	○			○		
M	Special Seminar and Practice				Common	○	○	○	○	○	○	○	○	○		
M	Special Lectures I (Supplemental 2)				Common	○	○	○	○	○	○	○	○	○		
M	Special Lectures II				Common	○	○	○	○	○	○	○	○	○		
En	English in Technology I		30	1	Common	○	○	○	○	○	○	○	○	○		
En	Overseas Study I ~ IV				Common											
En	Institute of Engineering Education Special Lectures				Common	○	○	○	○	○	○	○	○	○		
M	Graduation Thesis	6			Common	☆	☆	☆	☆	☆	☆	☆	☆	☆		
		7		6												
		8														
		9														

[Elective ⑥ and Required]

- *1. In the “Dept. in which offered” column, “**En**” indicates Engineering common subjects, “**M**” indicates Mechanical & Aerospace Engineering common subjects.
- *2. In the “Subject Type” column, “**Basic I**” indicates basic subjects that would be beneficial to Mechanical and Aerospace Engineering students (including exercise-based classes). “**Basic II**” indicates basic subjects that expand on “Basic I” subjects and are recommended for the field. “**Common**” indicates laboratory or training offered commonly to Mechanical and Aerospace Engineering students. “**Field Elective**” indicate subjects that would be beneficial to students in that field. “Course Elective” indicates subjects recommended for each course.
- *3. “Recommended for course” indicates subjects recommended for that course. In subjects for which there are too many students wishing to take the class, students belonging to courses marked with \oplus will receive first priority.
- *4. International Mechanical and Aerospace Engineering Course-Undergraduate (IMAC-U) is assigned only international degree course enrollment.

Supplemental

- 1: For the Mechanical Systems, Finemechanics, Aerospace Engineering, Robot and Mechanical/Biomedical Engineering courses, includes a short trip to a local plant, which is part of the graduation research.
- 2: Automotive Engineering etc.
- 3: Required subject for IMAC-U students who plan to take the Graduation Thesis in the laboratory of “Quantum Science and Energy Engineering”, and “Environment and Energy Engineering”.
- 4: Class offered for IMAC-U.