## 3.Specialized Subjects

	Subjects				Interna	ational	Mechanical and Aerospace	International Mechanical and Aerospace			
	Subjects labeled by • are provided in English				Engine	eering (	Course (April enrollment) (*3)	Engine	eering (	Course (October enrollment) <sup>(*3)</sup>	
Subject Types (*1)	Subjects labeled by ● are provided in English Subjects labeled by ■ are provided in Japanese/English		Hours in total	Credits	Semester, <sup>(*2)</sup>	Required and Elective Subjects	[For subjects left] ☆: Required o: Elective Blank: Auditable Subject (not credits for graduation)	Semester <sup>(*2),</sup>	Required and Elective Subjects	[For subjects left] ☆: Required o: Elective Blank: Auditable Subject (not credits for graduation)	
М	Introduction to Mechanical and Aerospace Engineering		30	2	1	0		3			
En	Introduction of Engineering Chemistry		30	2	1	0		3			
En	Exercises in Mathematics and Physics I	•	30	1	2	☆		2	☆		
En	English in Technology I		30	1	1	0		3	0		
En	Exercises in Mathematics and Physics II	•	30	1	3	☆		3	☆		
En	Practice of Information Processing	•	30	1	4	☆		4	☆		
En	Team-based Engineering for Invention			1	2	0		4 · 6	0		
М	Mathematics I	•	30	2	3	0		3	0		
М	Mathematics II	•	30	2	3	0		3	0		
М	Numerical Analysis	•	30	2	3	0	[Semi-elective ①]	3	0	[Semi-elective ①]	
М	Mechanics	•	30	2	3	0		3	0		
М	Exercises in Computer-Aided Problem Solving	•	30	2	3	0		3	0		
М	Mechanics of Materials I	•	30	2	4	0		4	0		
М	Fluid Mechanics I	•	30	2	4	0	[Semi-elective 2]	4	0	[Semi-elective (2)]	
М	Mechanics of Materials II	•	30	2	4	0		4	0		
En	Academic Writing		30	1	4	0		4	0		
М	Quantum Mechanics	•	30	2	4	0		4	0		
М	Mechanical Vibrations I	•	30	2	4	0	[Semi-elective 3]	4	0	[Semi-elective 3]	
М	Thermodynamics I	•	30	2	4	0		4	0		
М	Control Engineering I	•	30	2	4	0		4	0		
М	Quantum Mechanics A		30	2	4			4			
М	Mechanical Vibrations		30	2	4			4			
М	Thermodynamics A		30	2	4			4			
М	Physical Chemistry of Interface		30	2	4			4			
М	Fundamentals of Control Engineering		30	2	4		]	4		]	

	Subjects				Interna	ational ]	Mechanical and Aerospace	International Mechanical and Aerospace		
					Engine	eering (	Course (April enrollment) (*3)	Engine	eering (	Course (October enrollment) <sup>(*3)</sup>
	Subjects labeled by $\bullet$ are provided in English					ects	Registration		ects	Registration
(1)	Japanese/English					Subj	[For subjects left]		Subj	[For subjects left]
pes <sup>(</sup>	ort-and English					ive	☆: Required		ive	☆: Required
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М	Electromagnetics	•	30	2	5	$\bigcirc$		5	0	
М	Thermodynamics II	•	30	2	5	0		7	0	
м	Materials Science I		30	2	4	$\bigcirc$	[Semi-elective ④]	4	$\bigcirc$	[Semi-elective ④]
M			20	2	-	0		5	0	
M		•	30	2	5			5		
М	Electromagnetics A		30	2	4			4		
М	Thermodynamics B		30	2	4		4	4		
М	Materials Science A		30	2	4			4		
М	Materials Science B		30	2	4			4		
М	Computer Seminar I	•	30	1	4(*4)	☆		4~5	☆	
М	Mechanical and Aerospace Engineering Seminar I	-	60	2	4	☆		4	☆	
М	Design and Drawing I	•	30	1	4 <sup>(*4)</sup>	☆		5	☆	
М	Computer Seminar		30	1	4			4		
М	Design and Drawing		30	1	4			4		
М	Mechanical and Aerospace Engineering Seminar AI		60	1	4			4		
М	Introduction to Quantum Science and Energy		30	2	4			4		
М	Mechanical and Aerospace Engineering		60	1	4			4		
	Seminar A Introduction to Energy and Environmental									
М	Technology		30	2	4			4		
М	Science Technology and Industry in Japan (Supplemental 1)	•	30	1	4	0		4	0	
М	Mechanical Vibrations II	•	30	2	5	0	[Semi-elective ④]	5	0	[Semi-elective ④]
М	Manufacturing Engineering and Technology I	•	30	2	5	0		5	0	
М	Fundamentals of Information Science I	•	30	2	5	0	[Semi-elective (5)]	5	0	
М	Electrical and Electronic Circuit I	•	30	2	5	0		5	0	[Sami alastina 🕞 ]
М	Manufacturing Engineering and Technology II	•	30	2	5	0		5	0	
М	Electrical and Electronic Circuit II	•	30	2	7	0	[Elective 6]	7	0	
М	Fundamentals of Information Science II	•	30	2	5	0	[Semi-elective 5]	5	0	

	Subjects				International Mechanical and Aerospace					International Mechanical and Aerospace			
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	Subjects labeled by ■ are provided in					ubjec	[For	subjects left]		ubjec	[For subjects left]		
pes (*	Japanese/English					tive S	☆: I	Required		tive S	☆: Required		
ct Ty						Elect	ः E Blar	lective k: Auditable Subject		Elect	<ul> <li>Elective</li> <li>Blank: Auditable Subject</li> </ul>		
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М	Control Engineering II	•	30	2	5			[Semi-elective 5]	5	0	[Semi-elective (5)]		
М	Fluid Mechanics II	•	30	2	5	0			5	0			
М	Heat Transfer	•	30	2	7	0		[Elective 6]	7	0			
М	Heat and Mass Transfer	•	30	2	8	0			8	0	[Elective 6]		
М	Theory of Elasticity	•	30	2	5	0		[Semi-elective 5]	5	0			
М	Space Engineering	•	30	2	7	0		[Elective 6]	7	0	[Semi-elective 5]		
М	Biomechanical Engineering	•	30	2	7	0			7	0			
М	Resource Recycling		30	2	5				5				
М	Fundamentals of Information Science		30	2	5				5				
М	Electrical and Electronic Circuit		30	2	5				5				
М	Quantum Mechanics B		30	2	5				5				
М	Electromagnetics B		30	2	5				5				
М	Kinetics in Reactions		30	2	5				5				
М	Transform Phenomena		30	2	5				5				
М	Radiological Engineering		30	2	5				5				
М	Environmental Earth Science		30	2	5				5				
М	Environmental System I		30	2	5				5				
М	Laboratory Experiment I	•	30	1	5(*4)	☆			7	☆			
М	Mechanical and Aerospace Engineering Seminar II	•	30	1	5~6	☆			5~6	☆			
М	Production Process Practice	•	30	1	5(*4)	☆			7	☆			
М	Mechanical and Aerospace Engineering Seminar A2		30	1	5				5				
М	Laboratory Experiment A		30	1	5				5				
М	Mechanical and Aerospace Engineering Seminar B		30	1	5~6				5~6				
М	Computer Seminar II	•	30	1	5(*4)	0	<u> </u>	[Semi-elective 5]	7	0	[Semi-elective 5]		
М	Multidisciplinary Internship (Supplemental 1)	•	30	1	5	0		J	5	0			
М	Strength and Fracture Materials	•	30	2	8	0		[Elective 6]	8	0	[Elective 6]		

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М	Computational Mechanics of Materials	•	30	2	6	0		[Semi-elective 5]	6	0	[Semi-elective 5]		
М	Computational Fluid Dynamics	•	30	2	8	0		[Elective 6]	8	0	[Elective 6]		
М	Compressible Fluid Dynamics	•	30	2	8	0			8	0			
М	Machine Design I	•	30	2	6	0		[Semi-elective 5]	6	0	[Semi-elective 5]		
М	Machine Design II	•	30	2	8	0		[Elective 6]	8	0	[Elective 6]		
М	Robotics I	•	30	2	6	0			6	0			
М	Robotics II	•	30	2	6	0		[Semi_elective (5)]	6	0			
М	Measurement and Instrumentation I	•	30	2	6	0			6	0	[Semi-elective 5]		
М	Measurement and Instrumentation II	•	30	2	6	0			6	0			
М	Energy Conversion System Engineering	•	30	2	7	0		  Elective 6]	7	0			
М	Aircraft Design	•	30	2	8	0			8	0	[Elective 6]		
М	Mechanical Properties and Fracutre of Materials		30	2	6				6				
М	Mathematical Fluid Dynamis		30	2	6				6				
М	Fundamental of Measurement and Instrumentation		30	2	6				6		-		
М	Nuclear Energy Physics		30	2	6				6		-		
М	Global Energy Policy		15	1	6				6				
М	Radiochemistry		30	2	6				6				
М	Neutron Transport		30	2	6		_		6				
М	Computational Mechanics		30	2	6				6				
М	Environmental System II		30	2	6				6				
М	Environmental Materials Science		30	2	6		_		6				
М	Geomechanics		30	2	6				6				
М	Energy and Resources		30	2	6				6				
М	Laboratory Experiment II	•	30	1	6	☆			6	☆			
М	Design and Drawing II	•	30	1	6 <sup>(*4)</sup>	☆			7	☆			
М	Laboratory Experiment B		30	1	6				6				

	Subjects				Interna	itional	Mechanical and Aerospace	International Mechanical and Aerospace		
	Subjects labeled by  are provided in English				Engine	ering (	Course (April enrollment) (*3)	Engine	eering C	Course (October enrollment) (*3)
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s (*1)	Japanese/English					e Sul	[For subjects left] ☆: Required		e Sul	For subjects tell
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М	Tribology	•	30	2	7	0		7	0	
En	Introduction to Electronic Engineering		30	2	7			7	0	
En	Introduction to Materials Science		30	2	7	0		7	0	
En	Introduction to Environmental Engineering		30	2	7	0		7	0	
En	Introduction to Intellectual Property Right		15	1	7	0	[Elective 6]	7	0	[Elective 6]
En	Introduction to Biomedical Engineering		30	2	7	0		7	0	
En	Engineering Ethics		15	1	7	0		7	0	
En	English in Technology II		30	1	7	0		7	0	
М	Combustion Engineering	•	30	2	7	0		7	0	
М	Introduction to Aerospace Engineering	•	30	2	5	0	[Semi-elective 5]	5	0	[Semi-elective 5]
М	Radiation Protection and Safety Engineering		30	2	7			7		
М	Fuels and Materials of Nuclear Energy Systems		30	2	7			7		
М	Introduction to Nuclear Regulation		30	2	7			7		
М	Reservoir Engineering		30	2	7			7		
М	Material Science for Energy		30	2	7			7		
М	Nuclear Chemical & Environment Engineering		30	2	8			8		
М	Special Lecture of Energy and Environmental									
М	Plant Visit					0			0	
М	Industrial Practice					0			0	
М	Special Seminar and Practice					0			0	
М	Special Lectures I (Supplemental 2)					0	[Elective 6]		0	[Elective 6]
М	Special Lectures II					0			0	
En	Overseas Study I ~ IV									
En	Institute of Engineering Education Special Lectures					0			0	
					6			7		
M	Graduation Thesis	•		6	7 8	☆		8 9	☆	

- \*1. In the "Subject Types" column, "En" indicates Engineering common subjects, "M" indicates Mechanical & Aerospace Engineering subjects.
- \*2. Whether a subject is a semester subject or a quarter subject depends on subject and year. Please check the timetable of the year.
- \*3. Only students admitted through the Global Entrance Examination or Future Global Leadership Program Entrance Examination will be assigned to the International Mechanical and Aerospace Engineering Course (IMAC-U)
- \*4. April enrollment students must take Japanese taught classes.

Supplemental 1 Class offered for IMAC-U

Supplemental 2 Automotive Engineering etc.,