

--

--	--

--

--

--



Cluster 1 Mechanical Systems, Transportation, Material and Energy

Subject type		Required No. of credits	Class subjects, etc.	No. of credits	Type of course registration	Year in which the subject is taken(*The lower figure means semester) Note 1																	
						1st grade		2nd grade		3rd grade		4th grade											
						Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall										
Peace Science Courses																							
Basic Courses in University Education	Introduction to University Education																						
	Introductory Seminar for First-Year Students																						
Common Subjects	Area Courses		4	Courses in Natural Sciences	2	Compulsory elective																	
	Foreign Languages	English (Note 2 3)	Basic English Usage	2	Basic English UsageI	1	Required																
					Basic English UsageII	1																	
		Communication I	2	CommunicationI	1	Required																	
				Communication I	1																		
		Communication II	2	Communication II	1	Required																	
				Communication II	1																		
	Initial Foreign Languages (Select one language from German, French, Spanish, Russian, Chinese, Korean, and Arabic)		2	1 subjects from Basic language I	1	Compulsory elective																	
				1 subjects from Basic language II	1																		
	Information and Data Science Courses		2	Introduction to Information and Data Sciences	2	Required																	
Health and Sports Courses		2		1or2	Compulsory elective																		
Basic Subjects			18	CalculusI	2	Required																	
				CalculusII	2																		
				Linear AlgebraI	2																		
				Linear AlgebraII	2																		
				Seminar in Basic Mathematics I	1																		
				Seminar in Basic Mathematics II	1																		
				General Mechanics I	2																		
				General Mechanics II	2																		
				Basic Electromagnetism	2																		
				Experimental Methods and Laboratory Work in Physics I Note	1																		
			Experimental Methods and Laboratory Work in Physics II Note	1																			
			2	General Chemistry	2	Compulsory elective																	
				Experimental Methods and Laboratory Work in Chemistry I Note	1																		
		Experimental Methods and Laboratory Work in Chemistry II Note		1																			
No. of credits required for graduation		46																					

Note 1 When students fail to acquire the credit during the term or semester marked with * in the boxes for the year in which the course is taken, they can

take the course in subsequent terms or semesters. Depending on class subject, courses may be offered in semesters or terms different from those

Note 2 The credit obtained by mastery of "English-speaking Countries Field Research" or self-directed study of "Online Seminar in English A B" cannot be counted towards the credit necessary for graduation. The credit obtained by Overseas Language Training can be recognized as Communication or if application is made in advance. For more details, please refer to the article on English in Liberal Arts Education in the student handbook.

Note 3 We have a recognition of credit system for foreign language proficiency tests. For more details, please refer to the article on English in Liberal Arts Education in the student handbook.

Note 4 Students must take both Experimental Methods and Laboratory Work 1credit and Experimental Methods and Laboratory Work 1credit .

Cluster 1 Basic Specialized Subjects

Required subject
Compulsory elective subject
Free elective subject

Class Hours/Week

4th grade

Class Subjects	Credits	Type of course registration				Class Hours/Week								Note					
		Mechanical Systems Engineering	Transportation Systems	Materials Processing	Spring		Fall		Spring		Fall								
					1T	2T	3T	4T	1T	2T	3T	4T	1T		2T	3T	4T		
Applied Mathematics I	2							4											
Applied Mathematics II	2																		
Applied Mathematics III	2																		
Engineering Mathematics A	2																		
Engineering Mathematics C	2																		
Probability and Statistics	2																		
Synthesis of Applied Mathematics	2																		
Practice of Mechanics	1																		
Engineering Mechanics	2																		
Introduction of Mechanical and Transportation Engineering	2																		
Technical English	1																		
Basic Engineering Computer Programming	2																		
Mechanics of Material I	2																		
Thermodynamics I	2																		
Fluid Dynamics I	2																		
Control Engineering I	2																		
An Introduction to Engineering Materials	2																		
Fundamentals of Materials Processing	2																		
Machine Design and Drawing	1																		
Computer Aided Design	1																		
Machine Shop Training (a)	1																		
Machine Shop Training (b)	1																		

Students can select either Machine Shop Training (a) or Machine Shop Training (b)

Academic Achievements in Educational Program for Mechanical Systems Engin

The Relationship between Evaluation Items and Evaluation Criteria

Excellent

Very Good

Good

- logically consider it to be 3 mrt
To develop the ability to
- (1) Acquiring basis of mechanical system engineering steadily, and being able to it sufficiently.

Relationships between the evaluation items and class subjects

					Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items	Weighted values of evaluation items in the subject	Weighted values of evaluation items
Liberal Arts Education	Introduction to University Education	2	Required	1semester-1T	100	1								100
Liberal Arts Education	Introductory Seminar for First-Year Students	2	Required	1semester					50	1	50	1		100
Liberal Arts Education	Peace Science Courses	2	Elective	1semester-2T	100	1								100
Liberal Arts Education	Basic English UsageI	1	Required	1semester							100	1		100
Liberal Arts Education	Basic English UsageII	1	Required	2semester							100	1		100
Liberal Arts Education	CommunicationI	1	Required	1semester							100	1		100
Liberal Arts Education	Communication I	1	Required	1semester							100	1		100
Liberal Arts Education	Communication II	1	Required	2semester							100	1		100
Liberal Arts Education	Communication II	1	Required	2semester							100	1		100
Liberal Arts Education	Basic language I	1	Elective	1semester-1T							100	1		100
Liberal Arts Education	Basic language II	1	Elective	1semester-2T							100	1		100
Liberal Arts Education	Area Courses Courses in Arts and Humanities/Social Sc	4	Elective	1,2,3,4semester	100	1								100
Liberal Arts Education	Area Courses Courses in Natural Sciences	4	Elective	1,2,3,4semester	100	1								100
Liberal Arts Education	Health and Sports Courses	2	Elective	1,2semester	100	1								100
Liberal Arts Education	Introduction to Information and Data Sciences	2	Required	1semester			100	1						100

Curriculum Map of Mechanical Systems Engineering

Sheet

Academic achievements		1st grade		2nd grade		3rd grade		4th grade		
Evaluation Items		Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	
Knowledge and Understanding	To develop the ability to work positively and independently on the development of local societies, international	Area Courses	Area Courses	Area Courses	Area Courses	Reliability Engineering	Internship			
		Health and Sports Courses	Health and Sports Courses							
		Introduction to University Education								
		Peace Science Courses								
	Acquiring necessary basic knowledge for an engineer and developing the ability to consider logically.	Introduction to Information and Data Sciences	CalculusII	Basic Electromagnetism						
		CalculusI	Seminar in Basic Mathematics II	General Chemistry						
		Seminar in Basic Mathematics I	Linear AlgebraII	Basic Engineering Computer Programming						
		Linear AlgebraI	General Mechanics II							
		General Mechanics I	Experimental Methods and Laboratory Work in Physics I							
		Experimental Methods and Laboratory Work in Chemistry I								
Abilities and Skills	Acquiring basis of mechanical system engineering steadily and developing the applied skill.	Practice of Mechanical Engineering	Applied Mathematics II	Applied Mathematics III	Engineering Mathematics A	Synthesis of Applied Mathematics				
		Introduction of Mechanical and Transportation Engineering	Probability and Statistics	Engineering Mathematics C	Mechanical Materials I	Mechanical Materials II				
		Engineering Mechanics	Mechanics of Material I	Dynamics of Vibrations I	Machining	Fracture Mechanics				
		Applied Mathematics I	Fluid Dynamics I	Fluid Dynamics II	Combustion Engineering Fundamentals	Internal Combustion Engines				
		Machine Design and Drawing	Fundamentals of Materials Processing	Mechanics of Materials II	Manufacturing Systems	Computational Solid Mechanics				
			An Introduction to Engineering Materials	Mechanism and Kinematics	Reliability Engineering	Mechatronics				
			Control Engineering I	Systems Engineering	Electrical and Electronic Engineering	Machine Design				
			Thermodynamics I	Materials Science	Theory of Elasticity and Plasticity	Plastic-Working and Powder Metallurgy II				
				Heat Transfer I	Fusion and Solidification Processings I	Data Structure and Algorithm				
				Data Processing and Numerical Analysis	Dynamics of Vibrations II					
				Mathematical Optimization	Mechanical System Control					
				Control Engineering II	Machine Elements Design II					
				Measurement and Signal Processing	Computer Programming					
			Machine Elements Design I							
	Developing the ability of solving the technological issues with flexible ideas and creativity.	Introductory Seminar for First-Year Students	Machine Shop Training (a)	Machine Shop Training (b)	Systems Engineering	Experiments in Mechanical Engineering I	Experiments in Mechanical Engineering II	Graduation Thesis	Graduation Thesis	
				Computer Aided Design			Mechanical Engineering Design and Production			
							Internship			
Comprehensive Abilities	Cultivating abilities of communication and of internationally collecting information and releasing it	Introductory Seminar for First-Year Students	Basic English UsageII			Experiments in Mechanical Engineering I	Experiments in Mechanical Engineering II	Graduation Thesis	Graduation Thesis	
		Basic English UsageI	Communication II	Technical English			Internship			
		CommunicationI	Communication II							
		Communication I								
		Basic language I								
		Basic language II								

Color-code Common subjects Foundation Courses Basic Specialized Subjects The first group Basic Specialized Subjects The second group Specialized Subjects
 Symbol Required subject Compulsory elective subject Free elective subject