For entrants in AY 2024

○ When to start the program

○

○

	4
	3
	2

○ When and how it is assigned

○ Method of Evaluating Perfor

○ Other

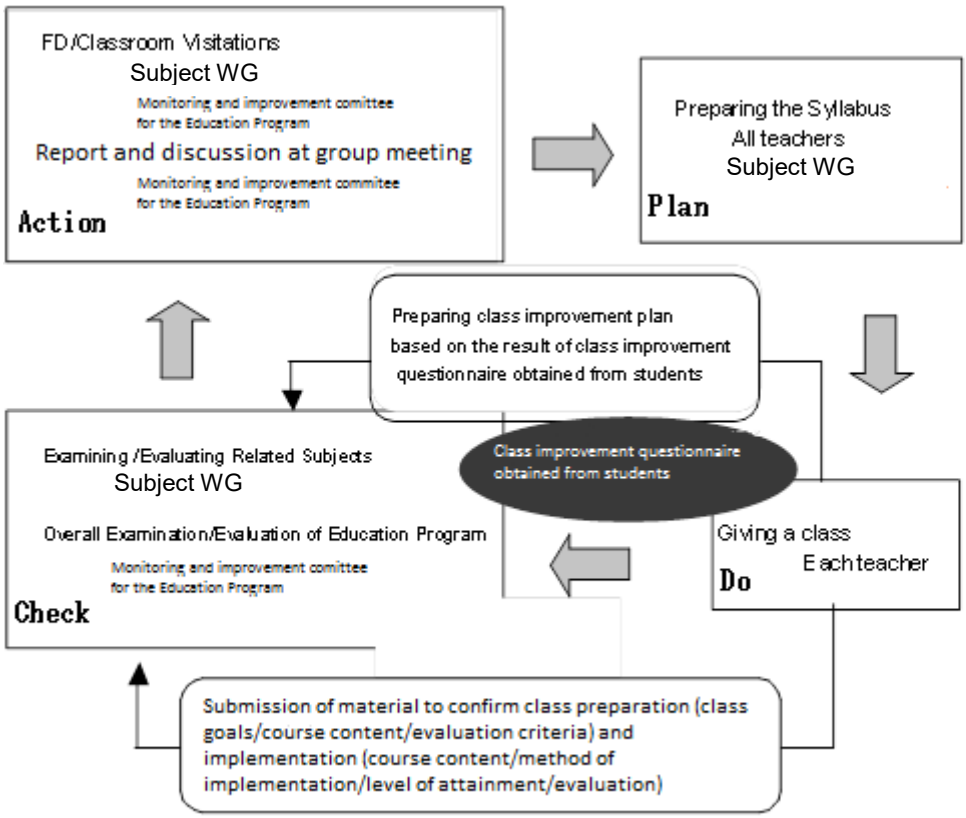
t, a WG checks the syllabus prepared by the person in charge of the subject, then

WG

subject WG

subject WG

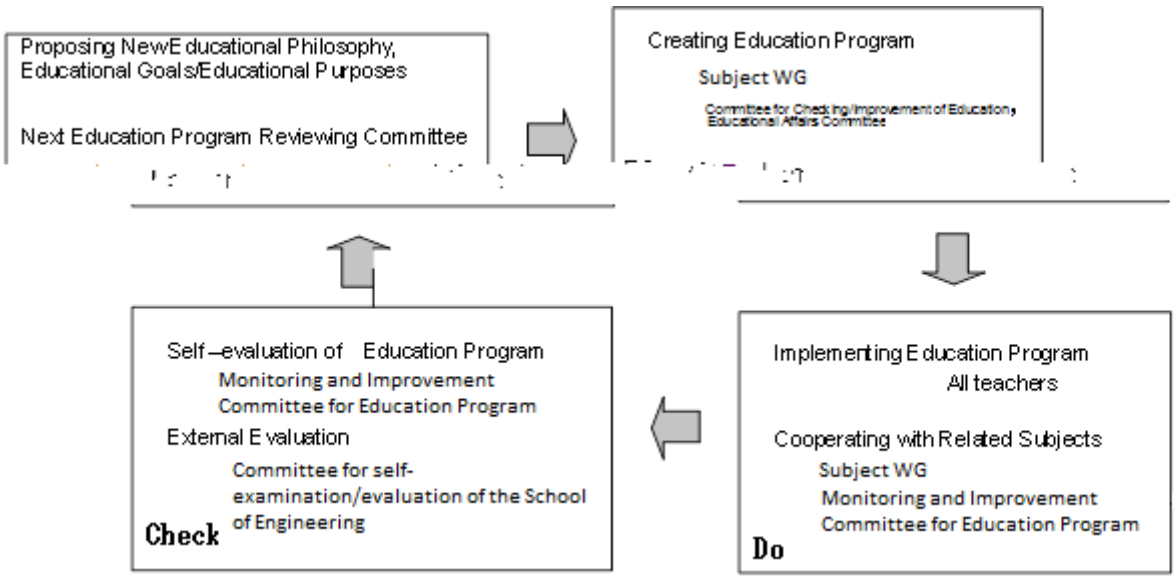
When faculty members participate in external FD, the details must be reported at a faculty



The Education Program is created at by the subject WG, the monitoring and

Do:

subject WG, and by the monitoring



detailed above, the subject WG and monitoring and improvement

Subject WG

ucation Program are divided into several categories. A subject WG is

In the subject WGs, class plans, achievements, and the result of classes given (based on class

While the responsibility for planning and implementing each subject, and its related subjects, lies with mentioned WGs, the responsibility for identifying and solving

This committee is composed of directors and the persons responsible for the subject WGs. The s of the subject WGs, as well as discussing problems with

Cluster 1 Mechanical Systems, Transportation, Material and Energy

Required subject (period of registration specified)

Compulsory elective subject (any of these subjects shall be registered)

Free elective subject (any of these subjects shall be registered)

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				
							1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T
Peace Science Courses			2		2	Compulsory elective												
Basic Courses in University Education	Introduction to University Education		2	Introduction to University Education	2	Required												
	Introductory Seminar for First-Year Students		2	Introductory Seminar for First-Year Students	2	Required												
	Advanced Seminar		0		1	Free elective												
Common Subjects	Area Courses		4	Courses in Arts and Humanities/Social Sc	2	Compulsory elective												
			4	Courses in Natural Sciences	2	Compulsory elective												
	Foreign Languages (Note 3)	English (Note 2) Basic English Usage	2	Basic English Usage I	1													
				Basic English Usage II	1													
		English (Note 2) Communication I	2	Communication IA	1	Required												
				Communication IB	1													
		English (Note 2) Communication II	2	Communication IIA	1	Required												
				Communication IIB	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													
			2	Introduction to Information and Data Sciencies	2	Required												
	Health and Sports Courses		2		1or2	Compulsory elective												
	Basic Subjects		18	Calculus I	2													
				Calculus II	2													
				Linear Algebra I	2													
				Linear Algebra II	2													
				Seminar in Basic Mathematics I	1													
				Seminar in Basic Mathematics II	1	Required												
				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													
				General Chemistry	2									○				
			2	Experimental Methods and Laboratory Work in Chemistry I Note	1	Compulsory elective		○										
				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 scheduled.

Note 2 The credit obtained by mastery of 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

Note 3

Note 4

Cluster 1　Basic Specialized Subjects

Required subject
Compulsory elective subject
Free elective subject

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

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

Cluster 1 Specialized Subjects

Program of Transportation Systems

Required subject
Compulsory elective subject
Free elective subject

Class Subjects	Credits	Type of course registration	Class Hours/Week														Note
			1st grade				2nd grade				3rd grade				4th grade		
			Spring		Fall		Spring		Fall		Spring		Fall		Spring		Fall		
			1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	
Summary of Applied Analysis	2								4										
Basic Electrical and Electronic Engineering	2													4					
Instrumentation Engineering	2									4									
Engineering Computer Programming	2											4							
Experiments and Analytical Procedures in Transportation Systems	2										6								
Ship Design and Practice	2								6										
Transportation Systems Project	4												4	4					
Fluid Dynamics for Vehicle and Environmental Systems	2									4									
Structural Mechanics	2								4										
Fundamentals in Dynamics	2								4										
Project Management	2									4									
Aircraft Design and Practice	2											6							
Structural Analysis and Design	2												4						
Theory of Elasticity	2											4							
Theory of Vibration	2										4								
Design of large scale systems	2												4						
Remote sensing	2											4							
Natural-Energy Utilization Engineering	2													4					
Viscous fluid and Turbulence	2										4								
Ocean-Atmosphere Systems	2												4						
Mathematical Optimization	2									4									
Transportation Vessels and Vehicles I	1										2								
Transportation Vessels and Vehicles II	1											2							
Transportation Vessels and Vehicles III	1											2							
Logistics Planning and Design	2													4					
Internship	1												3	3					
Graduation Thesis	5																		

Academic Achievements in Transportation Systems Program

The Relationship between Evaluation Items and Evaluation Criteria

		Excellent	Very Good	Good
(1)	Cultural subjects: Acquiring general knowledge from viewpoints of Nature, Human and Society Science, and the understanding of a sense of ethics.	To be able to sufficiently understand the current status of earth's environment and possible future problems. Also, to be able to adequately state multiple scientific perceptions concerning engineering	At the standard level, to be able to understand the current status of earth's environment and possible future problems. Also, to be able to state multiple scientific perceptions concerning engineering	At the minimum level, to be able to understand the current status of earth's environment and possible future problems. Also, to be able to state multiple scientific perceptions concerning engineering
(2)	Mathematical and mechanical subjects: To understand basic knowledge of mathematical dynamical system, which is essential knowledge for engineers and	To be able to sufficiently understand equations which dominate major elements of phenomena, through basic subjects such as mathematics, mechanics, kinematics, etc.	To be able to understand, in standard level, equations which dominate major elements of phenomena, through basic subjects such as mathematics, mechanics, kinematics, etc.	To be able to understand, at least, equations which dominate major elements of phenomena, through basic subjects such as mathematics, mechanics, kinematics, etc.
(3)	Information engineering subjects: To acquire understanding and basic knowledge required for engineers and researchers.	With regard to classes of information engineering, to be able to adequately understand information process technology based on mathematics and mechanics.	With regard to classes of information engineering, to be able to understand information process technology based on mathematics and mechanics at the	With regard to classes of information engineering, to be able to understand information process technology based on mathematics and mechanics at the standard
(4)	The area of structural engineering: The ability to apply the technical knowledge on structural engineering to solve issue related with transportation equipment and coexistence with the environment	Being able to fully explain the validity and		

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	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	Weighted values of evaluation items in the subject	Weighted values of evaluation items	
Liberal Arts Education	Introduction to University Education	2	Required	1semester	50	1											50	1												100
Liberal Arts Education	Introductory Seminar for First-Year Students	2	Required	1semester	50	1											50	1												100
Liberal Arts Education	Advanced seminar	1	Elective	2semester	50	1											50	1												100
Liberal Arts Education	Peace Science Courses	2	Elective	1semester	50	1											50	1												100
Liberal Arts Education	Basic English Usage I	1	Required	1semester																							100	1	100
Liberal Arts Education	Basic English Usage II	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																							100	1	100
Liberal Arts Education	Basic language II	1	Elective	1semester																							100	1	100
Liberal Arts Education	Introduction to Information and Data Sciencies	2	Required	1semester					50	1											50	1							100
Liberal Arts Education	Area Courses Arts and HumanitiesSocial Sciences)	2	Elective	1,2semesters	50	1											50	1											100
Liberal Arts Education	Area Courses Natural Sciences)	2	Elective	1,2semesters	50	1											50	1											100
Liberal Arts Education	Health and Sports Courses	1,2	Elective	1,2semesters	50	1											50	1											100
Liberal Arts Education	CalculusI	2	Required	1semester			50	1											50	1									100
Liberal Arts Education	CalculusII	2	Required	2semester			50	1											50	1									100
Liberal Arts Education	Linear AlgebraI	2	Required	1semester			50	1											50	1									100
Liberal Arts Education	Linear AlgebraII	2	Required	2semester			50	1											50	1									100
Liberal Arts Education	Seminar in Basic Mathematics I	1	Required	1semester			50	1											50	1									100
Liberal Arts Education	Seminar in Basic Mathematics II	1	Required	2semester			50	1											50	1									100
Liberal Arts Education	General Mechanics I	2	Required	1semester			50	1											50	1									100
Liberal Arts Education	General Mechanics II	2	Required	2semester			50	1											50	1									100
Liberal Arts Education	Basic Electromagnetism	2	Required	3semester			50	1											50	1									100
Liberal Arts Education	Experimental Methods and Laboratory Work in Physics I	1	Required	2semester			50	1											50	1									100
Liberal Arts Education	Experimental Methods and Laboratory Work in Physics	1	Required	2semester			50	1											50	1									100
Liberal Arts Education	General Chemistry	2	Elective	3semester			50	1											50	1									100
Liberal Arts Education	Experimental Methods and Laboratory Work in Chemistry I	1	Elective	2semester			50	1											50	1									100
Liberal Arts Education	Experimental Methods and Laboratory Work in Chemistry	1	Elective	2semester			50	1											50	1									100
Specialized Education	Applied Mathematics I	2	Required	2semester			50	1											50	1									100
Specialized Education	Applied Mathematics II	2	Required	3semester			50	1											50	1									100
Specialized Education	Applied Mathematics III	2	Required	4semester			50	1											50	1									100
Specialized Education	Probability and Statistics	2	Required	3semester			50	1											50	1									100
Specialized Education	Practice of Mechanics	1	Elective	2semester			50	1											50	1									100
Specialized Education	Introduction of Mechanical and Transportation Engineering	2	Required	2semester																							100	1	100
Specialized Education	Technical English	1	Required	3semester																							100	1	100
Specialized Education	Basic Engineering Computer Programming	2	Required	3semester					50	1											50	11							

Curriculum Map of Transportation Systems