Appended Form 1

Specifications for Major Program

Name of School (Program) School of Engineering Cluster 1(Mechanical Systems, Transportation, Material and Energy)

Program name (Japanese)	
(English)	Program of Transportation Systems
1. Academic degree to be Acquired	Bachelor's degree in engineering

2. Overview

(1) Overview of "English-based Bachelor's Degree Program"

This program aims to foster and produce future members of a global society who have the knowledge to be innovative, creative, take leadership, and possess language abilities that will help them play an important role in the international world.

This program focuses specifically on producing individuals who are capable of addressing various global issues from an engineering perspective and contribute to the creation of new and valuable solutions that are significant to both the industrial and academic societies.

Students enrolled in the program will begin the curriculum from the first semester of their first year.

In the second year, students will set off on their major programs and take the designated courses which are offered a .prfhuumter.

experiments, training, and subjects related to design and production projects. These are composed of subjects based on professional dynamic systems, which correspond to Goal C, and subjects based on project work, which correspond to Goals D and E.

In the fourth year, students work on their graduation theses, making full use of the abilities gained by meeting Goals A to E in the Program of Transportation Systems. Based on the theses and presentations submitted, mastery of Goals A to E is generally evaluated.

5. Program Timing/Acceptance Conditions

○ When to start the program

The English-based Bachelor's Degree programs begin in the first semester of the first year. Enrollment in Program of Transportation Systems occurs in the second semester of the second year.

○Additional Requirements

To determine acceptance into the English-based Bachelor's Degree program, all applicants are required to have an individual consultation with the faculty committee members.

○ Credit requirements

Before the start of the second semester of the second year. Assignment to educational programs is decided based on student request and academic results no later than the end of the first semester of the second year.

6. Qualifications to be Acquired

Type-1 High School Teaching License (Industry)

(Students must acquire the required number of credits for the Type-1 High School Teaching License (Industry), in addition to the required number of credits for this program.)

7. Class subjects and course content

* For class subjects, see the course list table on the attached sheet.
* For course content, see the syllabus for each fiscal year.
* All courses are taught in Japanese. Course materials may be written in both Japanese and English or only English.

8 Academic Achievements

At the end of each semester, evaluation criteria are applied to each academic achievement evaluation item to clearly demonstrate the attainment level. Students' grade calculation for each subject, from admission to the current semester, is given in one of three levels: "Excellent," "Very Good," and "Good," based on evaluation criteria calculated by adding the weighted values to the numerically-converted values of their academic achievements (S = 4, A = 3, B = 2, and C= 1) in each subject being evaluated.

Evaluation of academic achievement	Converted values
S(Excellent: 90 points or higher)	4
A(Superior:80-89 points)	3
B(Good: 70-79 points)	2
C(Fair: 60-69 points)	1

Academic achievement	Evaluation criteria
Excellent	3.00 4.00
Very Good	2.00 2.99
Good	1.00 1.99

* For the relation between evaluation item and evaluation criteria, see the attached sheet 2.
* For the relation between evaluation item and class subjects, see the attached sheet 3.
* For curriculum map, see the attached sheet 4.

9. Graduation Thesis (Graduation Research) (Positioning, when and how it is assigned, etc.)

Class Goals

meeting.

(2) Education Program PDCA

In the monitoring and improvement system for the Education Program, the Education Program is monitored and improved in the PDCA style described below.

Plan: Creating the Education Program

The Education Program is created at by the subject WG, the monitoring and improvement committee for the Education Program, and the Educational Affairs Committee of the School of Engineering.

Implementing the Education Program and Cooperating with Related Subjects

The Education Program is implemented by each teacher, by the subject WG, and by the monitoring and improvement committee for the Education Program. At that time, cooperation is enlisted from related subjects.

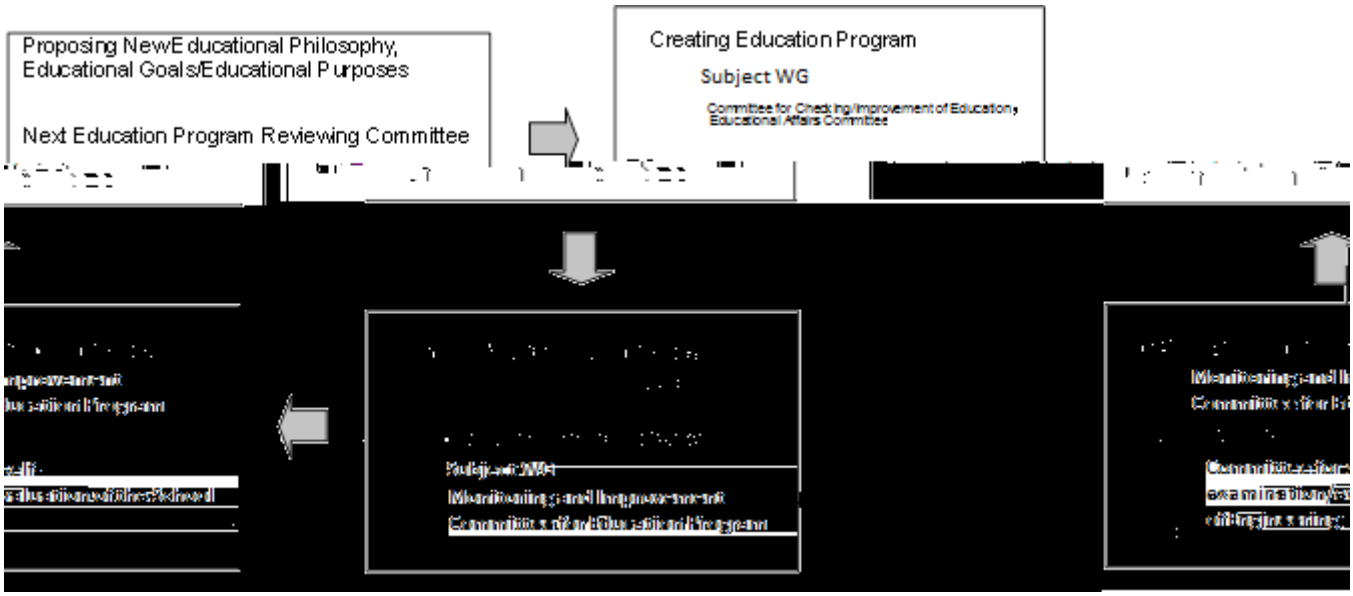
Check: Self-examination of the Education Program and External Evaluation

In the monitoring and improvement committee for the Education Program, problems with the program are examined based on the questionnaires obtained from graduates and students of the school for confirmation or making improvements

In the monitoring and improvement committee for the School of Engineering, external examination and evaluation of the planning and implementation of the Education Program are made.

Action: Proposing New Educational Philosophy, Educational Goals/Educational Purposes

At the next Education Program review committee, the educational philosophy and educational goals and purposes are reviewed by using the results of the above self-examination and external evaluation as reference.



(3) Program evaluation

Under the two PDCA systems detailed above, the subject WG and monitoring and improvement committee for the Education Program carry out their checks and evaluations. The following describes the activities of each committee in detail.

Subject WG

All subjects provided by this Education Program are divided into several categories. A subject WG is held by the person in charge of each related subject.

In the subject WGs, class plans, achievements, and the result of classes given (based on class improvement questionnaires) are discussed.

Monitoring and Improvement Committee of the Education Program

While the responsibility for planning and implementing each subject, and its related subjects, lies with the above-mentioned WGs, the responsibility for identifying and solving problems with the entire Education Program rests on the monitoring and improvement committee for the Education Program. This committee is composed of directors and the persons responsible for the subject WGs. The committee checks and analyzes the activities of the subject WGs, as well as discussing problems with the entire Education Program.

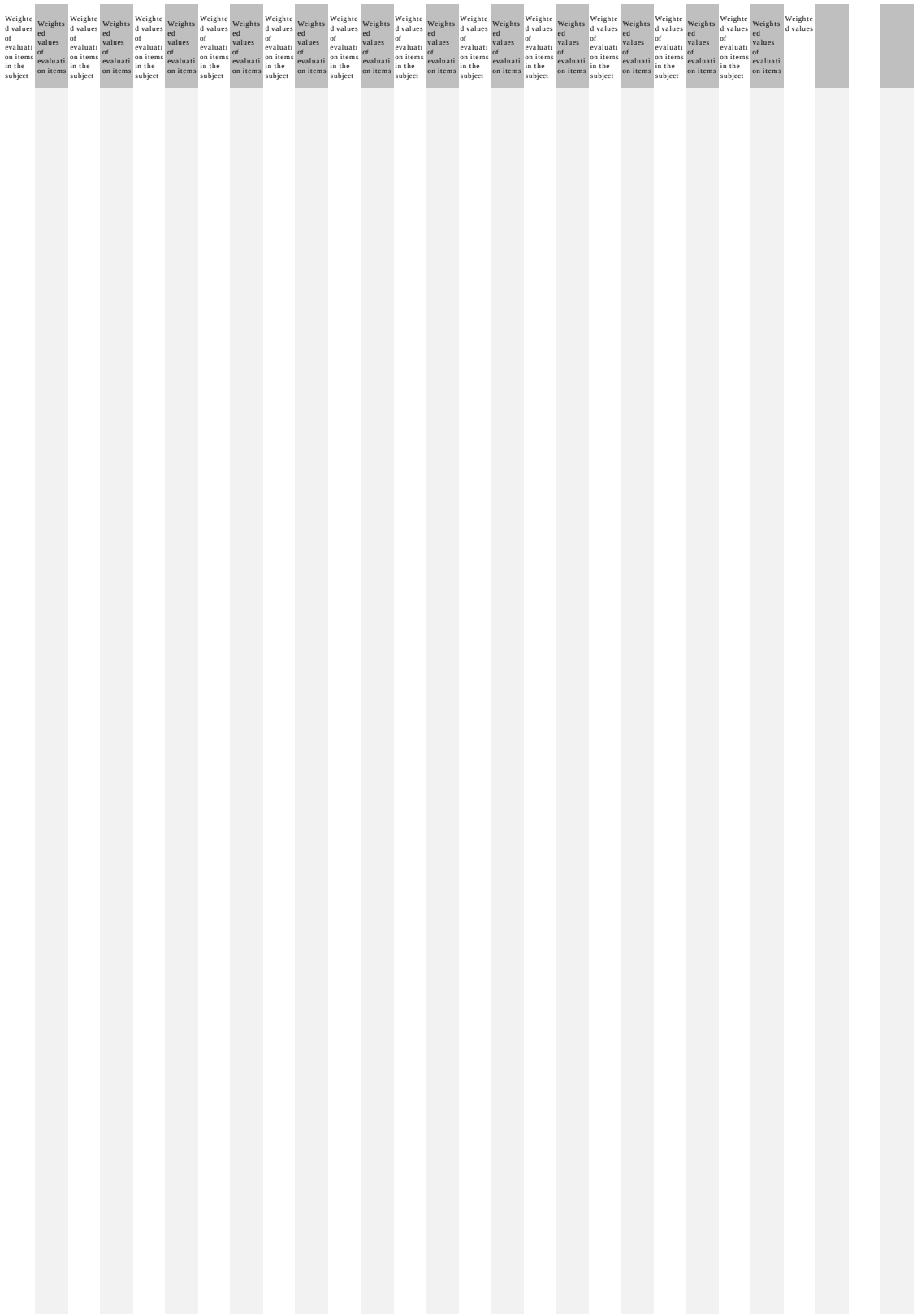
Cluster 1　Basic Specialized Subjects

◎ Required subject
○Compulsory elective subject
△Free elective subject

	Class Subjects	Credits	Type of course registration				Class Hours/Week																Note
			Mechanical Systems Engineering	Transportation Systems	Materials Processing	Energy Transform Engineering	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	
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														
	Engineering Mechanics	2	○	△	○	○				4													
	Introduction of Mechanical and Transportation Engineering	2	◎	◎	◎	◎			4														
	Technical English	1	◎	◎	◎	◎					4												
	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											
	Computer Programming	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)

Relationships between the evaluation items and class subjects



Curriculum Map of Transportation Systems

Sheet 4

Academic Achievement Evaluation Itemas		1st grade		2nd grade		3rd grade		4th grade	
		Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Knowledge and Understanding									