❒ Credit Requirements

1. Undergraduate Course

A. Students in the undergraduate program (bachelor's degree) have to complete a minimum of 130 credits for graduation, and have to satisfy the requirements of each classification.

B. Students in the undergraduate program may select subjects in the 100-400 levels and mutually-recognized subjects in the 500 level.

C. With the exception of make-up courses, the same course shall not be repeatedly taken for credit.

D. In the event that a subject is not available for inevitable reasons, a substitute course should be taken.

E. The credit requirements for graduation for each department (division)

(Unit: Credit)

Department /Division	General Courses			Basic Courses			Major Courses			* Elective Courses	Research Courses	Total
	Mandatory	Elective	Subtotal	Mandatory	Elective	Subtotal	Mandatory	Elective	Subtotal			
Physics							19	21	40		5	
Biological Sciences							18	24	42		4	
Mathematics							0	43	43		3	
Applied Mathematics							16	24	40		3	
Chemistry							36	13	49		3	
Civil and Environmental Engineering							12	33	45		3	
Mechanical Engineering							9	40	49		3	
Aerospace Engineering							22	30	52		3	
Industrial Engineering	7	21	28	23	9	32	24	27	51		4	130
Industrial Design	*(8AU)			Industrial Design 17		Industrial Design 26	24	28	52		4	
Chemical and Biomolecular Engineering							5	35	40		4	
Materials Science & Engineering							12	30	42		3	
Nuclear and Quantum Engineering							18	24	42		3	
Electrical Engineering							9	38	47		4	
Computer Science							19	24	43		4	
BioSystems							18	24	42		7	
Management Engineering							24	21	45		3	

※ When taking mandatory general courses, 8 AU (PE for 4 AU, volunteer activities for 4 AU) shall be completed separately. (This is no credit course but is required for graduation)

※ Electives have different requirements for each department. (Refer to the requirements of each department)

F. Requirements of minor

Department /Division	Requirements
Physics	Including 2 courses of PH301 Quantum Mechanics I and PH351 Physics Lab III (or PH352 Physics Lab IV), 19 credits or more have to be completed.
Biological Sciences	Including 12 credits of subject with the ten-digits of subject number in 0 or 1 or credits of ten digits of subject number in 0 or 2, 21 credits or more major courses have to be completed.
Mathematics	18 credits or more from major courses offered by this department have to be completed.
Applied Mathematics	18 credits or more from the major courses required by the this major.
Chemistry	12 credits from the mandatory major courses and 9 credits or more from the elective major courses have to be completed.
Civil and Environmental Engineering	12 credits from the mandatory major courses and 9 credits or more from the elective major courses (total of 21 credits or more) have to be completed.
Mechanical Engineering	Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design Ⅰ(3), Elective Major Courses at least 4 courses out of 8 Basic ME Elective courses
Aerospace Engineering	At least 21 credits in AE major courses including 4 courses from 8 mandatory major courses have to be completed.
Industrial Engineering	Regardless of mandatory and elective major courses, 18 credits or more have to be completed from the subjects offered from this department.
Industrial Design	Including dimensional design, foundation of product design, and element of product design, 18 credits or more have to be completed.
Chemical and Biomolecular Engineering	2 credits from the mandatory major courses and 16 credits from the elective major courses designated by this department (total of 18 credits or more) have to be completed.
Materials Science & Engineering	12 credits from the mandatory major courses and 9 credits or more from the elective major courses (total of 21 credits or more) have to be completed.
Nuclear and Quantum Engineering	At least total 21 credits are required (at least 15 credits from mandatory major courses and 6 credits from elective major courses designated by this department)
Electrical Engineering	Including Circuit Theory, Signals and Systems, Digital System Design, Electromagnetics Ⅰ, Electronic Circuits Ⅰ, and Electronics Lab. Ⅰ, 21 credits or more from the major courses have to be completed.
Computer Science	Including 12 credits of mandatory major courses from this department, 21 credits or more from the major courses from this department have to be completed.
BioSystems	18 credits or more from mandatory major courses have to be completed.
Management Engineering	- From the electives in humanities and social science and the basic elective courses, Introduction to Economics and Introduction to OR have to be completed, and - 6 courses or more from major courses offered from this department including Principle of Management have to be completed (18 credits or more).

2. Graduate course

A. Students in the master's course may take 500-900 levels of subjects and 400 level of mutually recognizing subjects for credit.

B. Students in the PhD course may take 500-900 levels of subjects for credit. (Major courses from the undergraduate program can be taken for credit under special circumstances. Refer to the course requirements for the graduate program.)

C. The master's course is classified into the master's with thesis and the master's with coursework (The following table is for the master's with thesis. Refer to the legend following the table for the coursework master's degree program.).

D. With the exception of "F" grade for mandatory subjects, the same subject cannot be repeatedly taken for credit.

E. In the event that a required subject is later not offered, a designated substitute course has to be completed.

F. Department (major, interdisciplinary major)/completed credit chart for Master's and PhD programs.

Department/Division		Master's					Doctoral				
		Mandatory General	Mandatory Major	Elective Major	Research	Total	Mandatory General	Mandatory Major	Elective Major	Research	Total
*Physics		3	12	9	12	36	3	24	15	30	72
*Biological Sciences			0	15	18	36		0	24	45	72
*Mathematics			0	24	9	36		0	39	30	72
*Applied Mathematics			6	15	12	36		6	33	30	72
Chemistry			0	21	12	36		0	36	33	72
Civil and Environmental Engineering			6	18	9	36		6	33	30	72
Mechanical Engineering			0	21	12	36		0	39	30	72
Aerospace Engineering			0	21	12	36		0	39	30	72
Industrial Engineering			0	24	9	36		0	42	30	78
Industrial Design			6	15	12	36		0	39	30	72
Chemical and Biomolecular Engineering			0	27	10	40		0	45	30	78
Materials Science & Engineering			0	21	12	36		0	36	30	72
*Nuclear and Quantum Engineering			0	21	12	36		0	39	30	72
Electrical Engineering			3	18 or more	6 or more	36		3	36	31	73
Computer Science			9	12	12	40		9	30	30	78
BioSystems			3	18	12	36		3	36	30	72
Graduate School of Management	Management Engineering		12	21	9	45		12	39	30	84
	*Techno-MBA		9	33	9	54					
	*Management Information Systems		9	33	9	54					
	*Telecommunication Management and Policy		12	30	9	54					
	Financial Engineering		15	29	9	56					
	*Green Management and Policy		9	33	9	54					
	*Executive Program		36	6	3	48					
Interdisciplinary Program											

※ The subject credits from the master's course can be cumulatively added to the credits for the Ph.D. course.

※ '*' indicates department/major which offer coursework master's degree program.

- Students in the coursework master's degree program should acquire certain extra curriculum credits (6 credits or more: different depending on the department) without the degree thesis review.
- In coursework master's degree program, the research credit is available only from individual research and seminar (thesis research and thesis seminar are not counted.).

- Students in coursework master's degree program should refer to page 50 for the requirements for graduation.

※ The Interdisciplinary Program may have different credit requirements depending on departments.