

□ Credit Requirements

I. 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) - applicable to students admitted to KAIST in 2012 and thereafter; for those who have entered KAIST in 2011 and before, refer to the Course Completion Requirements by Year of Admission.

(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 ↑	130 above
Mathematical Science							0	42 ↑	42 ↑		3	
Chemistry							24	18 ↑	42 ↑		5 ↑	
Biological Sciences							18	30 ↑	48 ↑		3 ↑	
Bio and Brain Engineering							14	28 ↑	42 ↑		7 ↓	
Mechanical Engineering							9	40 ↑	49 ↑		3 ↑	
Aerospace Engineering							19	30 ↑	49 ↑		3 ↑	
Civil and Environmental Engineering	6 +(9AU)	21 ↑	27 ↑ +(9AU)	23	9 ↑	32 ↑	15	30 ↑	45 ↑		3 ↑	
Chemical&Biomolecular Engineering							18	23 ↑	41 ↑		4 ↑	
Material Science&Engineering							12	30 ↑	42 ↑		3 ↑	
Nuclear and Quantum Engineering							25	18 ↑	43 ↑		3 ↑	
Management Science												
Electrical Engineering							18	29 ↑	47 ↑		4 ↑	
Computer Science							22	21 ↑	43 ↑		3 ↑	
Information and Communications Engineering												
Industrial&System Engineering							24	27 ↑	51 ↑		6 ↓	
Industrial Design							27	27 ↑	54 ↑		3 ↑	

* Elective general courses in humanities & social science

※ In the case of Information & Communications Engineering refer to the requirements for each department.

※ Department of Management Science provides the minor and the double major program for undergraduates. (Refer to the requirements for the department)

※ When taking mandatory general courses, 9 AU shall be completed separately. (This is no credit course but is required for graduation)

※ Requirements for elective courses are different 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 19 credits or more have to be completed.
Mathematical Sciences	18 credits or more from major courses offered by the department have to be completed.
Chemistry	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.
Biological Sciences	Including 12 credits of subject with the ten-digits of subject number in 0, 21 credits or more major courses have to be completed.
Bio and Brain Engineering	18 credits or more from mandatory major courses have to be completed.
Civil and Environmental Engineering	15 credits or more from the mandatory major courses and 6 credits from the elective major courses (total of 21 credits or more) have to be completed.
Mechanical Engineering	3 mandatory major courses (Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design I (3)) and elective major courses at least 4 courses out of 8 Basic ME Elective courses have to be taken.
Aerospace Engineering	At least 21 credits in AE major courses including 4 mandatory major courses have to be completed.
Chemical and Biomolecular Engineering	9 credits from the mandatory major courses (either CBE201 Molecular Engineering Laboratory or CBE301 Chemical and Biomolecular Engineering Laboratory and CBE202 Introduction to Chemical and Biomolecular Engineering should be completed) and 9 credits or more from the elective major courses (total of 18 credits or more) have to be completed
Materials Science & Engineering	9 credits or more from the mandatory major courses and 9 credits from the elective major courses (total of 18 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)
Management Science	At least total 18credits are required including 6 credits of mandatory major courses and 12 credits of elective major courses (at least 6 credits or more from elective major course I and at least 6 credits or more from elective major course II)
Electrical Engineering	At least 21 credits in major courses including - Circuit Theory, Signals and Systems, Digital System Design, Electromagnetics, Electronic Circuits, Introduction to electronics design Lab
Computer Science	Including 15 credits of mandatory major courses from this department, 21 credits or more from the major courses from this department have to be completed.
Information and Communications Engineering	At least 21 credits from mandatory major courses (a cumulative GPA of 2.0 or higher in the courses taken for minor)
Industrial & System Engineering	Regardless of mandatory and elective major courses, 18 credits or more have to be completed from the major courses 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.

G. Requirements of double major (applicable to students entering in 2012 and thereafter)

Required General	General		Basic		Major	Double Major	Research	Total
	Elective in Humanities&Social Sciences	Sub-total	Required	Elective				
6 +(9AU)	12 or above (without considering divisions)	18 or above	23	3 or above/ 6 or above	refer to the requirements for each	40 including mandatory major courses	0	130 or above

2. Graduate course

- A. Students in the master's or the PhD course may take 500-900 levels of subjects and 400 level of mutually recognizing 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.)
- B. 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.)
- C. With the exception of "F" grade for mandatory subjects, the same subject cannot be repeatedly taken for credit.
- D. In the event that a required subject is later not offered, a designated substitute course has to be completed.
- E. Department (major, interdisciplinary major) completed credit chart for Master's and PhD programs

Department /Division	Master's					Doctoral				
	Mandatory General	Mandatory Major	Elective	Research	Total	Mandatory General	Mandatory Major	Elective	Research	Total
Physics		9	9 ↑	12 ↑	33 ↑		9	18 ↑	30 ↑	60 ↑
*Mathematical Sciences		0	21 ↑	12 ↓	36 ↑		0	33 ↑	30 ↑	66 ↑
Chemistry		0	18 ↑	12 ↓	33 ↑		0	18 ↑	39 ↓	60 ↑
Graduate School of Nanoscience & Technology		15	3 ↑	12 ↑	33 ↑		3	24 ↑	30 ↑	60 ↑
*Biological Sciences		6	9 ↑	15 ↑	33 ↑		6	18 ↑	33 ↑	60 ↑
Bio and Brain Engineering		0	18 ↑	12 ↑	33 ↑		0	27 ↑	30 ↑	60 ↑
Graduate School of Medical Sciences & Engineering							0	18 ↑	39 ↓	60 ↑
Civil and Environmental Engineering		0	18 ↑	12 ↑	33 ↑		0	27 ↑	30 ↑	60 ↑
Mechanical Engineering		0	18 ↑	12 ↑	33 ↑		0	33 ↑	30 ↑	66 ↑
Aerospace Engineering		0	18 ↑	12 ↑	33 ↑		0	27 ↑	30 ↑	60 ↑
Ocean Systems Engineering		0	21 ↑	9 ↑	33 ↑		0	27 ↑	30 ↑	60 ↑
Chemical and Biomolecular Engineering		3	15 ↑	12 ↑	33 ↑		3	24 ↑	30 ↑	60 ↑
Materials Science & Engineering		0	18 ↑	12 ↓	33 ↑		0	27 ↑	30 ↑	60 ↑
*Nuclear and Quantum Engineering		0	18 ↑	12 ↑	33 ↑		0	27 ↑	30 ↑	60 ↑
The Cho Chun Shik Graduate School for Green Transportation	3	12	6 ↑	12 ↑	33 ↑	3	18	12 ↑	30 ↑	63 ↑
Graduate School of EEWS	+	3	15 ↑	12 ↑	33 ↑	+	3	24 ↑	30 ↑	60 ↑
Management Science	(1AU)	3	18 ↑	9 ↑	33 ↑	(1AU)	3	30 ↑	30 ↑	66 ↑
*Graduate School of Innovation & Technology Management		12	24 ↑	6 ↑	45 ↑		12	24 ↑	30 ↑	69 ↑
*Graduate School of Culture Technology		3	15 ↑	12 ↑	33 ↑		3	24 ↑	30 ↑	60 ↑
*Graduate School of Science and Technology Policy		6	15 ↑	9 ↑	33 ↑		6	27 ↑	30 ↑	66 ↑
*Electrical Engineering		3	18 ↑	5 ↑	33 ↑		3	24 ↑	30 ↑	60 ↑
*Computer Science		0	18 ↑	6 ↑	33 ↑		0	27 ↑	30 ↑	60 ↑
Information and Communications Engineering										
*Industrial & System Engineering		0	21 ↑	9 ↑	33 ↑		0	36 ↑	30 ↑	69 ↑
Knowledge Service Engineering		0	21 ↑	9 ↑	33 ↑		0	30 ↑	30 ↑	63 ↑
Industrial Design		6	12 ↑	12 ↑	33 ↑		0	27 ↑	30 ↑	60 ↑
Management Engineering		3	30 ↑	9 ↑	45 ↑		3 ↑	30 ↑	30 ↑	66 ↑
*Techno-MBA		27 ↑	18 ↑	6 ↑	54 ↑					
**Executive-MBA		36 ↑	6 ↑	3 ↑	48 ↑					
**IMBA		39 ↑	9	3	54 ↑					
*Finance MBA		10.5	31.5 ↑	9 ↑	54 ↑					
**Information & Media Management MBA		19.5	21 ↑	10.5 ↑	54 ↑					
Interdisciplinary Program Other Program										

※ In the case of Information & Communications Engineering, Interdisciplinary Programs and others, refer to

- the requirements for each.
- ※ When taking mandatory general courses, 1AU(CC020, Ethics and Safety I) shall be completed separately.
(This is no credit course, but required for graduation)
 - ※ 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 both thesis master's degree program and coursework master's degree program
‘**’ indicates department/major which only 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).
 - ※ The Interdisciplinary Program and other programs may have different credit requirements depending on departments. In the case of Information & Communications Engineering, IT Business, Interdisciplinary Programs and others, refer to the requirements for each.