

Course Requirements

□ Undergraduate Requirements

A. Graduation Credits

- At least 130 credits in total
 - A cumulative grade point average of 2.0 or higher out of a possible 4.3 in all coursework.

B. Completion of General Courses: At least 28 credits and 9AU (applicable to students entering KAIST in 2014 and thereafter; for those who have entered KAIST in 2013 and before, refer to the Course Completion Requirements by Year of Admission)

- Mandatory General Courses

Academic Year	Credits	Required Courses
In 2014 and thereafter	7 credits and 9AU	English Presentation & Discussion(1), Advanced English Listening(1), Advanced English Reading(1), Advanced English Writing(1), Writing(3), Physical Education(4AU), Humanity/Leadership(2AU), Ethics and Safety II(1AU), Happy College Life(1AU), Exciting College Life(1AU)
Between 2011 and 2013	6 credits and 9AU	English Communication(1), Critical Thinking in English(2), Writing(3), Physical Education(4AU), Humanity/Leadership(2AU), Ethics and Safety II(1AU), Happy College Life(1AU), Exciting College Life(1AU)
Between 2009 and 2010	6 credits and 9AU	English Communication(1), Critical Thinking in English(2), Writing(3), Physical Education(4AU), Community Service(2AU), Humanity/Leadership(2AU), Ethics and Safety II(1AU)
Between 2007 and 2008	7 credits and 9AU	English Communication I(1), English Communication II(1), English Reading&Writing(2), Writing(3), Physical Education(4AU), Community Service(2AU), Humanity/Leadership(2AU), Ethics and Safety II(1AU) * English Communication I → English Communication * English Communication II → English Conversation * English Reading&Writing → Critical Thinking in English
Between 1998 and 2006	7 credits and 9AU	English I(2), English II(2) Writing(4AU), Community Service(2AU), Humanity/Leadership(2AU), Ethics and Safety II(1AU) * English I → English Communication * English II → Critical Thinking in English

- ① English: 4 credits (applicable to students entering KAIST in 2014 and thereafter; for those who have entered KAIST in 2013 and before, refer to the Course Completion Requirements by Year of Admission)

- According to the score of English Proficiency Test (TOEFLE) or mock TOEFLE administered by KAIST for incoming freshmen, students will be exempted from taking the required English classes and their test score will be transferred into credits as follows.

Score	Class Exemption and Credit Transfer	Grade
22 or higher in Speaking	English Presentation & Discussion (1 credit)	S
22 or higher in Listening	Advanced English Listening (1 credit)	S
22 or higher in Writing	Advanced English Writing (1 credit)	S
22 or higher in Reading	Advanced English Reading (1 credit)	S

※ Criteria for English Course Taking

Level	TOEFL iBT scores	Subject (credit)	Hours	Classification	Remark
Exemption	22-30	-(4)	-	-	-
Advanced	Speaking 19-21	English Presentation & Discussion (1)	2	Required	Prerequisite: Students should meet either of the following two criteria: 1. TOEFL score 2. Completion of Intermediate English Speaking & Listening courses
	Listening 19-21	Advanced English Listening (1)	2	Required	Prerequisite: Students should meet either of the following two criteria: 1. TOEFL score 2. Completion of Intermediate English Speaking & Listening courses
	Writing 19-21	Advanced English Writing (1)	2	Required	Prerequisite: Students should meet either of the following two criteria: 1. TOEFL score 2. Completion of Intermediate English Reading & Writing courses
	Reading 19-21	Advanced English Reading (1)	2	Required	Prerequisite: Students should meet either of the following two criteria: 1. TOEFL score 2. Completion of Intermediate English Reading & Writing course
Intermediate	Speaking or listening 15-18	Intermediate English Speaking & Listening (2)	3	Elective	Prerequisite: Students should meet either of the following two criteria: 1. TOEFL score 2. Completion of English Camp
	Writing or reading 15-18	Intermediate English Reading & Writing (2)	3	Elective	Prerequisite: Students should meet either of the following two criteria: 1. TOEFL score 2. Completion of English Camp
Remedial	Speaking and listening below 14 Or Reading and writing below 14	Basic English Conversation (0)	-	Camp (Pre-admission Program)	
		TOEFL (0)			
		Basic English Reading (0)			
		Basic English Writing (0)			
		Basic English Grammar (0)			
	Basic English Speaking & Listening (0)	3	-	Requisite for students who did not complete Camp	
	Basic English Reading & Writing (0)	3	-		

※ Criteria for credit recognition of English courses (applicable to students from foreign high schools using English as primary language)

Academic Year	Requirement
In 2013 and thereafter	Students whose mother tongue is English or students who graduated from a high school in which English is the primary language will be exempted from English language requisites and will be graded with an 'S'.
Between 2011 and 2012	Students who completed the high school curriculum where English is the primary language will be exempted from English language requisites and will be graded with an "S"
Before 2010	Foreign students who completed the entire high school curriculum where English is the primary language will be exempted from English language requisites and will be graded with an "S"

② Writing: 3 credits

- Students will take a level test and will be divided into level A, B and C according to the students' level of writing. (Level test can only be taken once during the undergraduate course)

Level	Credit Recognition and Prerequisite
A	To be exempted from Writing and graded with an "S"
B	To be attending Writing I
C	To be attending Writing I after attending Basic Writing (no credit, free of charge) opened by Writing Center

※ From the 2014 spring semester, students whose writing test is Level C are required to take the Basic Writing course (Elective, one credit) before taking an elective writing course.

※ Writing classes: Logical Writing, Critical Writing, Practical Writing, Creative Writing

③ Physical Education: 4AU should be completed. (not counted for GPA but required for graduation.)

- Since each course in Physical Education has 2AU, 2 courses should be taken
- 2AU among 4AU can be replaced by extra curricular sports activities.

④ Community Service: Not applicable to students entering KAIST in 2011 and thereafter. However, leadership mileage will be awarded for proof of community service.

- Students who entered the KAIST in or before 2006 must complete 4AU; those who enter the KAIST between 2007 and 2010 must complete 2AU. (not counted for GPA but required for graduation.)
- Service at the flower town, serving as an executive member of student association, serving as a student representative of a department, service in the school clean-up campaign, service at a public welfare organization such as the welfare center, service at public organizations such as the national park management corporation, service at government offices such as a city hall and a town-block office.
- The proof of the community service sealed with the signature of the service organization for the off-campus service and of the head of the corresponding administrative office for the on-campus service should be submitted to the Academic Registrar's Team.

⑤ Humanity/Leadership : 2AU(not counted for GPA but required for graduation.)

- Applicable to students who enter the KAIST in or after 2007 and is mandatory for graduation
- Program and credit recognition per course
- * Only students within their first 2 semesters can attend the Humanity/Leadership III course

Course	Program	Credit
Humanity/Leadership I	Complete either 7H leadership training or phoenix leadership training	1AU
Humanity/Leadership II	Communication training	1AU
Humainty/Leadership III	Complete one program among photography, musical instruments, jazz dance, hip-hop, a cappella, etc	1AU

⑥ Ethics and Satey II : 1AU(applicable to all of the students presently studying at KAIST. not counted for GPA but required for graduation.)

- Ethics and Safety II(HSS070/10.179) includes Research Ethics, Lab Safety, Human Rights & Sexual Morality and Leadership. Students do not have to register for the course but go to the web-site(<http://eethics.kaist.ac.kr>), complete the course and pass the test with the grade "S" if they satisfy the criteria below.

- Opening semester : Spring, Fall

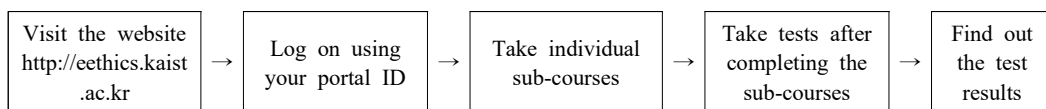
- Taking the course: From the 2015 freshmen, Ethics and Safety II is a basic course offered during the first semester. Please log in at <http://eethics.kaist.ac.kr> for course registration. However, in the case of the 2014 freshmen, please log in at <http://eethics.kaist.ac.kr> for registration.

- Students must score 80 or higher in all of the 4 subjects (Research Ethics, Lab Safety, Sexual Violence & Sexual Harassment, and Leadership) However, in the cases of Human Right and Sexual Ethics, students will be evaluated on whether they completed the course or not.

*Note that total points are 100 in each subject.

- Exam period: From the beginning of each semester through the final exam period (One may take exams by up to ten times per each sub-course during the period)

- Exam-taking process



* Students will pass the course only with a score of 80 or higher in all of the 4 subjects during one semester.

⑦ Happy College Life/Exciting College Life : 2AU for students entering KAIST in 2011 and thereafter (not counted for GPA but required for graduation.)

- Students must complete Happy College Life (1AU) in the first semester of their freshmen year and Exciting College Life(1AU) in the following semester.

○ Elective General Courses in Humanities & Social Sciences: at least 21 credits

- Take (6 credits) 1 course of each of the following 2 categories among 3 categories: Humanity, Society and Literature and Arts; the rest can be chosen regardless of the category. (applicable to students entering KAIST in 2009 and thereafter; for those who have entered KAIST in and before 2008, refer to the Course Completion Requirements by Year of Admission)

- Students entering KAIST between 2007 and 2010 should earn at least 9 credits through lectures in English among the 21 credits required as Elective General Courses in Humanities & Social Science.

- Students having a double major take 12 credits without considering categories. (Students entering KAIST between 2007 and 2010 should take 6 credits through lectures in English.)

※ The requirement of taking lectures in English as Elective General Courses in Humanities & Social Science is not applied to students entering KAIST in 2011 or thereafter.

- General course requirements for international students in the undergraduate program
 - English language courses
 - Students whose mother tongue is English or students who graduated a high school in which English is the primary language will be exempted from English language requisites and will be graded with an ‘S’ . (Applicable from 2013 cohorts)
 - Students who completed the entire high school course speaking English as primary language will be exempted from English language requisite and will be graded with an “S” (Applicable from 1998 cohorts).
 - Completion of Korean language courses(Exemption from Writing course) : International students are exempt from Writing course, which is a liberal education requisite. However, the students who are exempt from Writing course should take HSS006(10.108, Basic Korean I for foreign Students, 3 credits), which is a liberal education requisite, and HSS193(10.167, Basic Korean II for foreign Students, 3 credits), which is a general elective course. (applicable to students who enter the KAIST in or after 1998)
 - Completion of AU courses : International students must complete AU courses (Total 9 : Physical Education 2AU, Humanity/Leadership 2AU, Ethics and Safety II 1AU, Happy College Life 1AU, Exciting College Life 1AU which are liberal education requisites. However, Humanity/Leadership may be substituted by Cultural Experience (applicable to students who enter the KAIST in or after 2011).
 - * Students entering KAIST in 2007 to 2010: Physical Education 4AU, Community Service 2AU, Humanity/Leadership 2AU, Ethics and Safety II 1AU (Total: 9AU)
 - * Students entering KAIST in 2006 or before: Physical Education 4AU, Community Service 4AU, Ethics and Safety II 1AU (Total: 9AU)
- C. Completion of Basic Courses: at least 32 credits (applicable to students entering 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)
- Mandatory Basic Courses: 23 credits
 - ① 1 course among Fundamental Physics I (3), General Physics I (3), and Advanced Physics I (3)
 - ② 1 course among Fundamental Physics II (3), General Physics II (3), and Advance Physics II (3)
 - ③ 1 course of General Physics Lab I (1)
 - ④ 1 course of Basic Biology (3) or General Biology (3)
 - ⑤ 1 course of Calculus I (3) or Honor Calculus I (3)
 - ⑥ 1 course of Calculus II (3) or Honor Calculus II (3)
 - ⑦ 1 course among Basic Chemistry (3), General Chemistry I (3), and Advanced Chemistry (3)
 - ⑧ 1 course of General Chemistry Lab I (1) or Advanced Chemistry Lab (1)
 - ⑨ 1 course of Basic Programming (3) or Advanced Programming (3)
 - Students having entered KAIST in 2007 or before: 23 credits (①~⑨)
 - Students having entered KAIST between 2008 and 2011: 26 credits((①~⑨), Freshman Design Course (Introduction to Design and Communication)(3))
 - Elective Basic Courses:
 - Students having entered KAIST in 2013 or before: at least 9 credits

(Students admitted in and before 2011 should take more than 6 credits)

- Students having entered KAIST in 2014 or after: take more than 9 credits with at least 2 courses out of Introduction to Linear Algebra, Differential Equations and Applications, and Applied Mathematical Analysis.

※ Regular and lab courses are not compartmentalized.

※ Students having a double major take 3 credits.

D. Completion of Major Courses: at least 59 credits (applicable to students entering KAIST in 2014 and thereafter; for those who have entered KAIST in 2013 and before, refer to the Course Completion Requirements by Year of Admission)

o Mandatory Major Courses: 12 credits

- Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design I(3), Engineering Design(3)

o Elective Major Courses: at least 47 credits.

- Select at least 7 courses out of 9 courses:

Thermodynamics(3), Fluid Mechanics(3), Mechanics of Materials(3), Dynamics(3), Applied Electronics(3), Modeling and Control of Engineering Systems(3), Understanding of Materials and Processing(3), Heat Transfer(3), Mechanical Vibrations(3)

* Major course credits from other majors are only approved up to 10 credits.

E. Completion of Elective Courses: Take mandatory or elective major courses from other majors.

F. Completion of Research Courses: at least 3 credits

- Taking at least 3 credits of Research Courses is mandatory, but the students can take Capstone Design II (3) instead.

※ Students having a double major are exempt.

※ Individual Study credits are approved as Research Courses credits up to 4 credits, and Seminar credits are approved as Elective Course credits.

G. English Language Requirement

o Before entering or during studying at KAIST, students should obtain the minimum required score or higher from one of the following: TOEFL, TOEIC, TEPS and IELTS.

o Students who have hearing impairment level 3 or above should obtain the minimum required score or higher, excluding listening.

1) Students who have submitted past scores for TOEIC (before April 2006) or TEPS (before February 28, 2007)

- Students admitted in 2008 or later

Classification	iBT TOEFL	PBT TOEFL	CBT TOEFL	TOEIC	TEPS	IELTS
General qualification score	83	560	220	775	690	6.5
Qualification score for hearing impairment level 3 or above	62	372	146	387	414	4.8

- Students admitted in 2007 or earlier

Classification	iBT TOEFL	PBT TOEFL	CBT TOEFL	TOEIC	TEPS	IELTS
General qualification score	83	560	220	760	670	6.5
Qualification score for hearing impairment level 3 or above	62	372	146	380	402	4.8

- 2) Students who have submitted NEW TOEIC score taken after May 2006 or TEPS score taken after March 1, 2007

H. Graduation Requirements for Foreign Students: TOPIK (Test of Proficiency in Korean)

Classification	iBT TOEFL	PBT TOEFL	CBT TOEFL	TOEIC	TEPS	IELTS
General qualification score	83	560	220	720	599	6.5
Qualification score for hearing impairment level 3 or above	62	372	146	360	359	4.8

- Undergraduate foreign students are required to obtain level 2 or higher score in TOPIK before entering or during studying at KAIST.

※ Applies to students entering KAIST in 2013 and thereafter

I. ME Minor and ME Double Major

- ME Minor: at least 21 credits in major courses including:
 - Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design I(3), and at least 4 Selective Major Courses out of 8 Basic ME Elective courses.
- ME Double Major:
 - 40 credits including Mandatory Major courses.

□ Master's and Doctoral Programs

1) Master's Program

Mandatory General	Mandatory Major	Elective	Research	Total
3 + 1AU	—	21	12 or more	36

- Required Credits for Graduation: at least 36 credits.
- Mandatory General Course(CC): 3 credits and 1AU
 - CC010 Special Lecture on Leadership (non-credit, this applies to students entering KAIST in 2002 and thereafter; general scholarship students, foreign students, and Changwon-KAIST program students are excluded)
 - CC020 Ethics and Safety I (1AU)
 - 1 course among Scientific Writing, Introduction to Computer Application, Probability and Statistics, Introduction to Materials and Engineering, Engineering Economy, Cost Analysis, Introduction to Instruments, and Entrepreneurship and Business Strategies.
 - CC532 Collaborative System Design and engineering credits are received as CC courses to only Renaissance Program students. Changwon-KAIST program students and general scholarship students.
- Mandatory Major Courses: NONE
- Elective Courses: at least 21 credits (Should take more than 12 credits offered by the ME department. For dual degree students (except KAIST-TUB dual degree) can transfer credits to mechanical engineering course if selective course is already granted credit recognition in other universities)
- Research: at least 12 credits (including 2 credits of Seminar)
 - * Foreign students, Changwon-KAIST program students and general scholarship students of after 2009 admission are exempt from seminar credits)

2) Coursework Master' s Program

- Required Credits for Graduation: at least 36 credits and 1AU.
- Mandatory General Course(CC): 3 credits
 - 1 course among Scientific Writing, Introduction to Computer Application, Probability and Statistics, Introduction to Materials and Engineering, Engineering Economy, Cost Analysis, Introduction to Instruments, Entrepreneurship and Business Strategies, and Collaborative System Design and engineering.
 - CC020 Ethics and Safety I (1AU)
- Mandatory Major Courses: NONE
- Elective Courses: at least 30 credits (Should take more than 18 credits offered by the ME department)
- Research: at least 3 credits of Individual Research M.S. (Coursework Master' s Program students are excluded from taking Special Lecture on Leadership and Seminar.)
 - * Foreign students, Changwon-KAIST program students and general scholarship students of after 2009 admission are exempt from seminar credits)
- Coursework Master' s Program is applicable to those who decide to take this program among Changwon-KAIST program students.
- Interim Measures: The above completion requirements are applicable to all Changwon-KAIST program studentse who apply for Coursework Master' s Program.

3) Doctoral Program

Mandatory General	Mandatory Major	Elective	Research	Total
3 + 1AU	–	33	30 or more	69

- Required Credits for Graduation: at least 69 credits in total.
- Mandatory General Course(CC): 3 credits and 1AU
 - 1 course among Scientific Writing, Introduction to Computer Application, Probability and Statistics, Introduction to Materials and Engineering , Engineering Economy and Cost Analysis, Introduction to Instruments, Entrepreneurship and Business Strategies.
 - CC020 Ethics and Safety I (1AU)
 - * If the students have already taken CC020 during Master' s degree, the credit is accepted.
- Mandatory Major Courses: NONE
- Elective Courses: at least 36 credits
- Research: at least 30 credits
- ※ The Course Credits earned in the Master's course work can be used towards the Doctoral degree (except research credits).
- ※ The course requirements for PhD students who have graduated from other universities must be decided by the Curriculum Committee 's recommendation (용어 체크!) and the dean' s approval.
- ※ The above requirements are applicable to those entering KAIST in 2013 and thereafter.

4) Integrated Master' s and Doctoral Degree Program

- The curricula of existing master's and PhD programs are followed.
- The course credits and research credits earned from the master's course may be cumulatively counted.

□ Interim Measures

1) Undergraduate Program

- The above requirements for Undergraduate Program students in Division of Mechanical Engineering are applicable to students entering KAIST in 2004 and thereafter. Students entering KAIST in 2003 and before can choose either the current Course Completion Requirements or the Course Completion Requirements of admission year at their desire.
- If students entering KAIST in 2003 and before choose the Course Completion Requirements of admission year, interim measures are prescribed as follows:
 - In case in which students are not able to satisfy the requirements of Mandatory Major courses because the courses are revised or substituted, the students should earn more Elective credits by the same amount that is deficient in Mandatory Major course.
 - In case in which students have taken any Major Mandatory courses that have been changed into Elective courses (Thermodynamics(3), Fluid Mechanics(3), Dynamics(3), Applied Electronics(3), Mechanical Engineering Laboratory II(3), Engineering Design(3), and Understanding of Materials and Processing(3)), the credits are approved as Major Mandatory course credits.
 - Students who have not taken any course out of Mechanical Engineering Laboratory I(3) and Mechanical Engineering Laboratory II(3), they should take Mechanical Engineering Laboratory (3). Moreover, if students have not taken both Mechanical Engineering Laboratory I(3) and Mechanical Engineering Laboratory II(3), they should take both Mechanical Engineering Laboratory (3) and New Design and Experience in Mechanical Systems (3). In such a case, New Design and Experience in Mechanical Systems (3) is not approved as an Elective Basic Course.
- If students entering KAIST in 2003 and before choose the Course Completion Requirements of admission year, interim measures are prescribed as follows:
 - Introductory Lab. Design and Drafting can substitute for Basic Mechanical Practice, and in such a case, the required credits for Mandatory Major course and Elective Major are 8 credits and 41 credits, respectively.
 - If students have already taken both Mechanical Engineering Laboratory I(3) and Mechanical Engineering Laboratory II(3), Mechanical Engineering Laboratory(3) (Mandatory Major) and Mechanical Engineering Laboratory II(3) (Elective Major) are approved substitutingly.

2) Integrated Master's and Doctoral Degree Program

- The above requirements for Integrated Master's and Doctoral Degree Program students in Division of Mechanical Engineering are applicable to students entering KAIST in 2005 and thereafter. Students entering KAIST in 2004 and before can choose either the current Course Completion Requirements or the Course Completion Requirements of admission year at their desire.
- ※ Substitutive courses for the abolished courses are determined by the department, and they are to be announced on the website (me.kaist.ac.kr).