

Course Requirements

□ Undergraduate Courses

- 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. General Course : At least 27 credits and 9AU(applicable to students entering KAIST in 2009 and onward; for those who have entered KAIST before 2009, refer to the Course Completion Requirements by Year of Admission)
- Mandatory General Course
 - Students entering KAIST in 2009 and onward : 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)
 - Students entering KAIST 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
 - Elective General Course in Humanities & Social Science : at least 21 credits
 - Students entering KAIST in 2009 and onward : at least 21 credits including at least 1 course in each of 2 divisions among 3 divisions(Humanity, Society, Culture & Art)
 - Students having entered KAIST before 2009 : at least 21 credits including at least 1 course in each of 2 divisions among 5 divisions(Science Technology; Literature and Art; History and Philosophy; Social Science; Foreign Language and Linguistics) or at least 1 course in each 2 divisions among 3 divisions(Humanity, Society, Literature&Art)
 - Students entering KAIST in 2007 and onward should earn at least 18 credits through English lectures 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 in 2007 and onward should take 12 credits through English lectures.)
- C. Completion of Basic Courses: at least 32 credits (applicable to students entering KAIST in 2008 and onward; for those who have entered KAIST before 2009, refer to the Course Completion Requirements by Year of Admission)
- Mandatory Basic Courses: 26 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)
 - ⑩ Freshman Design Course : Introduction to Design and Communication (3)
 - ※ Students having entered KAIST in 2007 or before : 23 credits (①~⑨)
 - Elective Basic Courses: at least 6 credits
 1. Required: PH152 General Physics Laboratory II (applicable to students entering KAIST in 2005)

2. Recommended: CH103 General Chemistry II, MAS109 Introduction to Linear Algebra, MAS201 Differential Equations and Applications, MAS202 Applied Mathematical Analysis

※ Students having a double major take 3 credits.

D. Major Course: at least 40 credits

- Mandatory Major Courses : at least 19 credits
- Elective Major Courses : at least 21 credits

E. Elective Course: at least 26 credits

F. Research Course: at least 5 credits

- Required: PH490 B.S. Thesis Research (3), PH496 Seminar (2)
- Optional: PH495 Individual Study (maximum 4 credits)

※ Students having a double major are exempt.

G. English Proficiency Requirements upon Graduation

- Students are required to meet one of the following requirements on English proficiency before entering KAIST or during their years of enrollment: 560 points in PBT TOEFL; 220 points in CBT TOEFL; 83 points in IBT TOEFL; 6.5 points in IELTS; 720 points or 760/775 points in TOEIC (see below); or 599 points or 670/690 points in TEPS (see below).

※ Criteria for TOEIC and TEPS scores

- Students submitting scores from new TOEIC (held in May 2006 and onward) or TEPS held on March 1, 2007 and onward: 720 points in TOEIC; or 599 points in TEPS
- Students submitting scores from old TOEIC (held before April 2006) or TEPS held before February 28, 2007:
 - Students entering KAIST in 2008 and onward: 775 points in TOEIC; or 690 points in TEPS
 - Students entering KAIST in 2007 or before: 760 points in TOEIC; or 670 points in TEPS

※ Requirements for a double major: 40 credits including mandatory major courses

※ Requirements for a minor in physics: minimum 19 credits in physics courses including PH301 Quantum Mechanics I, and PH351 Physics Laboratory III (or PH352 Physics Laboratory IV).

※ General and basic courses in undergraduate program are different from years of admission; therefore, students entering KAIST before 2009 should refer to the Course Completion Requirements by Year of Admission.

□ **Master's Program**

A. Graduation Credits: minimum 33 credits

B. Mandatory General Course: 3 credits and 1AU

- One of the following courses: CC510, CC511, CC512, CC522
- CC010 Special Lecture on Leadership(non-credit, this applies to students entering KAIST in 2002 and onward; general scholarship students, foreign students are excluded)
- CC020 Ethics and Safety I(1AU)

C. Mandatory Major Course: 9credits (Applied Physics Laboratory I, Quantum Mechanics I, Advanced Electrodynamics I)

D. Elective Course: minimum 9 credits (minimum 6 credits from physics)

E. Research Credits: at least 12 credits (2 semesters of PH990 required, Not required for recipients of general scholarship and foreign students)

□ **Doctoral Program**

- A. Required number of credits for graduation: minimum 60 credits.
- B. General Course Requirements: the same as those for the Master's degree (not required if taken during the Master's degree program).
- C. Mandatory Major Course Requirements: 9credits (Applied Physics Laboratory I, Quantum Mechanics I, Advanced Electrodynamics I)
- D. Elective Course Requirements: minimum 18 credits (minimum 12 credits from physics).
- E. Research Credits: minimum 30 credits
 - ※ The course credits earned in the Master's course work can be used towards the Doctoral degree(except research credits).
 - * Graduate students are strongly recommended to take CC500.