

## 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 2011 and thereafter; for those who have entered KAIST in 2010 and before, refer to the Course Completion Requirements by Year of Admission)
- Mandatory General Course
    - Students entering KAIST in 2011 and thereafter: 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)
    - Students entering KAIST 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)
    - 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
    - Students entering KAIST 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
  - Elective General Course in Humanities & Social Science : 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 and thereafter.
- 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 and 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: at least 9 credits
  - ※ Students having a double major take at least 3 credits.
  - ① Required: PH152 General Physics Laboratory II (students having a double major are recommended to take)
  - ② Recommended: CH103 General Chemistry II, MAS109 Introduction to Linear Algebra, MAS201 Differential Equations and Applications, MAS202 Applied Mathematical Analysis
  - ※ applicable to students matriculated in 2005 and onwards.

D. Major Course: at least 40 credits

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

E. Elective General Course: at least 26 credits

F. Research Course: at least 5 credits

- Required : PH490 B.S. Thesis Research (3), PH496 Seminar (2, maximum 2 credits)
- Optional : PH495 Individual Study (maximum 2 credits per semester, maximum 4 credits)
  - ※ applicable to students taking a credit in Fall 2014 and onwards
  - ※ Students having a double major are exempt.

G. English Proficiency Requirements upon Graduation

- 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.
- 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

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

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

- 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. Requirements for Double Major and Minor

- Double major: 40 credits including mandatory major courses
- Minor: minimum 19 credits in physics courses including PH301 Quantum Mechanics I, and PH351 Physics Laboratory III

※ General and basic courses in undergraduate program are different from years of admission; therefore, students 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 thereafter; general scholarship students, foreign students are excluded)
  - CC020 Ethics and Safety I(1AU)
- C. Mandatory Major Course: 9 credits (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: : 9 credits (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.

**□ The Integrated Master's and Doctoral Degree Program**

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