

## Course Requirements

### □ Undergraduate

General Courses			Basic Courses			Major Courses			Elective Courses	Research	Total
Mandatory	Elective	Subtotal	Mandatory	Elective	Subtotal	Mandatory	Elective	Subtotal			
6(9AU)	21	27(9AU)	26	6	32	22	21	43		3	130

- A. Graduation Credits : at least 130 credits in total
- 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 of 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
  - ※ Students having a double major take 3 credits.
- D. Major Course Requirements: at least 43 credits
  - Mandatory Major Courses : at least 22 credits
  - Elective Major Courses: at least 21 credits
- E. Elective Course Requirements: Take required major courses or Elective courses in other departments).
- F. Research Course Requirements: at least 3 credits (Please refer to the departmental requirements for course completion).
  - Please be sure to take 3 credit hours for graduation research (It can be replaced with 'Field Test,' etc.)
  - Research credits include the credits that are earned from an independent study and seminar.
  - ※ 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
- H. Minor and Double Major
  - Double Major: 40 credits including mandatory major courses
  - Minor: at least total 21 credits are required (at least 15 credits from required basic courses)

※ 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

- 1) Thesis Master's Degree (at least 21 credits for course work + at least 12 research credits)

General Course	Major Courses	Research (including seminar credits)	Total
3 and 1AU	18	12	33

A. Graduate Credits: at least 33 credits

B. Mandatory General Courses: 3 credits and 1AU

- 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)
- Select one course from the following courses (CC500 Scientific Writing, CC510 Introduction to Computer Application, CC511 Probability and Statistics, CC512 Introduction to Materials Science and Engineering, CC513 Engineering Economics and Cost Analysis, CC522 Introduction to Instruments, CC530 Entrepreneurship and Business Strategies, CC531 Patent Analysis and Invention Disclosure,

CC532 Collaborative System Design and Engineering) (NQE595 can replace CC500).

- C. Mandatory Major Courses: None.
- D. Elective Major Courses: at least 18 credits (including major courses in other departments)
  - Among the 18 credits, at least 6 credits should be taken in our department.
  - Students whose undergraduate major is not Nuclear Engineering must take NQE202.
- E. Research Credits: at least 12 credits (should include at least 2 credits in Seminar).
  - Part-time general scholarship and foreign students are exempted seminar.
- F. ① Student who obtained their bachelor degree from other department must obtain the course NQE202.
- ② When Master student chooses to apply for the non-mutually recognized bachelor and master's degree only 3 credits are recognized as master degree graduate credits.
- ③ The details above (including graduate credits and requirements) only imply to all the students no matter what year they entered.

2) Coursework Master's Degree (at least 27 credits for coursework + at least 6 research credits)

General Course	Major Courses	Research (individual research)	Total
3 and 1AU	24	6	33

- A. Graduate Credits: at least 36 credits in total
- B. Mandatory General Courses: 3 credits and 1AU
  - 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)
  - Select one course from the following courses (CC500 Scientific Writing, CC510 Introduction to Computer Application, CC511 Probability and Statistics, CC512 Introduction to Materials Science and Engineering, CC513 Engineering Economics and Cost Analysis, CC522 Introduction to Instruments, CC530 Entrepreneurship and Business Strategies, CC531 Patent Analysis and Invention Disclosure, CC532 Collaborative System Design and Engineering) (NQE595 can replace CC500).
  - HS586 for foreign students' can be replaced by CC500 only for foreign students.
- C. Mandatory Major Courses: None
- D. Elective Major Courses: At least 24 credits (including major courses in other departments)
  - Among the 24 credits, at least 12 credits should be taken in our department.
  - Students whose undergraduate major is not Nuclear Engineering must take NQE202.
- E. Research Credits: at least 6 credits (only MS's individual research).
- F. Others
  - ① Student who obtained their bachelor degree from other department must obtain the course NQE202.
  - ② When Master student chooses to apply for the non-mutually recognized bachelor and master's degree only 3 credits are recognized as master degree graduate credits.
  - ③ The details above (including graduate credits and requirements) only imply to all the students no matter what year they entered.
  - ④ The course-work plan is applied to international students if they wish and upon the academic advisor's approval.

□ **Doctoral Degree** (at least 30 credits for course-work + at least 30 research credits)

General Course	Major Courses	Research (including seminar credits)	Total
3 and 1AU	27	30	60

- A. Graduate Credits: at least 60 credits in total.
- B. Mandatory General Courses: 3 credits and 1AU (The student who already earned 3 credits in Master's course does not need to have 3 credits again).
- C. Mandatory Major Courses: None.
- D. Elective Major Courses: At least 27 credits (including major courses in other department)
  - Among the 27 credits, at least 12 credits should be taken in our department.
  - Students whose undergraduate and M.S. majors are not Nuclear Engineering must take NQE202.
- E. Research Credits : at least 30 credits (should include at least 3 credits in Seminar).
  - Part-time general scholarship and foreign students are excepted seminar.
- F. Others :
  - ① Students who obtained their bachelor/master degree from other departments must obtain the course NQE202
  - ② When Doctoral student chooses to apply for the bachelor courses or mutually recognized bachelor and master's degree only 6 credits are recognized as doctoral degree graduate credits. However, when doctoral student wish to earn credits from the bachelor courses as doctoral graduate credits, approval from the personal tutor is needed beforehand.
  - ③ The details above (including graduate credits and requirements) only imply to all the students no matter what year they entered.