

## 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 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 (MAS109, MAS201)
    - ※ Students with a double major take 3 credits or above including at least one course between

## MAS109 and MAS201

- D. Major Course : at least 42 credits
- Mandatory Major Course : at least 14 credits  
Bioengineering Fundamentals, Molecular and Cellular Biology, Bioengineering Laboratory I , Bioengineering Laboratory II
  - Elective Major Course : at least 28 credits
- E. Elective Course : 'Probability and Statistics' (MAS250) should be taken after 2006.
- F. Research Course : at most 7 credits. (even though you complete more than 7, we don't account the rest of the credits for your graduation.)
- Graduation research: 3 credits (required)
  - Individual study: 2 or fewer credits
  - Seminar: 2 credits (required)
- ※ 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: 775 points in TOEIC; or 690 points in TEPS
    - 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 : at least 18 credits
- Mandatory Major Course: 18 credits

※ 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
- A. Graduation Credits : at least 33 credits in total.
- B. Mandatory General Course : 3 credits and 1AU
- 1 course among CC500 Scientific Writing, CC510 Introduction to Computer Application, CC511 Probability and Statistics, CC512 Introduction to Materials and Engineering, CC513 Engineering Economy and Cost Analysis, CC522 Introduction to Instruments, CC530 Entrepreneurship and Business Strategies, CC531 Patent Analysis and Invention Disclosure,
  - 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 : abolished
- D. Elective Course : at least 18 credits(must complete 2 or more bio & brain engineering's graduate subjects whose second subject code no. are different from each other, except BiS510 Technology Commercialization and Venture Business, BiS800 Special Lectures in Bio and Brain Engineering,

BiS810 Leadership & Communication, BiS966 Seminar(Master), BiS987 Biofusion Seminar)

E. Research Credits : at least 12 credits including BiS966 Seminar 2 credits, BiS987

Biofusion Seminar 2 credits (Foreign students are required to take one of the following classes : Korean classes (2 credits or more) or seminar class (BiS966, 2 credits))

2) Coursework Master's Degree : Applicable to Integrated Master's and Doctoral Degree Program

A. Graduation Credits : at least 33 credits in total.

B. Mandatory General Course : 3 credits and 1AU

- 1 course among CC500 Scientific Writing, CC510 Introduction to Computer Application, CC511 Probability and Statistics, CC512 Introduction to Materials and Engineering, CC513 Engineering Economy and Cost Analysis, CC522 Introduction to Instruments, CC530 Entrepreneurship and Business Strategies, CC531 Patent Analysis and Invention Disclosure,

- 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 : abolished

D. Elective Course : at least 24 credits(must complete 2 or more bio & brain engineering's graduate subjects whose second subject code no. are different from each other, except BiS510 Technology Commercialization and Venture Business, BiS800 Special Lectures in Bio and Brain Engineering, BiS810 Leadership & Communication, BiS966 Seminar(Master), BiS987 Biofusion Seminar)

E. Research Credits : at least 6 credits including Seminar, Individual Study

※ Coursework Master's Degree are required for students entered after 2004.

#### □ Doctoral Program

A. Graduation Credits : at least 60 credits in total.

B. Mandatory General Course : 3 credits and 1AU

- 1 course among CC500 Scientific Writing, CC510 Introduction to Computer Application, CC511 Probability and Statistics, CC512 Introduction to Materials and Engineering, CC513 Engineering Economy and Cost Analysis, CC522 Introduction to Instruments, CC530 Entrepreneurship and Business Strategies, CC531 Patent Analysis and Invention Disclosure,

- CC020 Ethics and Safety I(1AU)

C. Mandatory Major Course : abolished

D. Elective Course : at least 27 credits(must complete 3 or more bio & brain engineering's graduate subjects whose second subject code no. are different one another, except BiS510 Technology Commercialization and Venture Business, BiS800 Special Lectures in Bio and Brain Engineering, BiS810 Leadership & Communication, BiS986 Seminar(Doctoral), BiS987 Biofusion Seminar)

E. Research Credits : at least 30 credits including BiS986 Seminar 2 credits, BiS987 Biofusion Seminar 2 credits (Foreign students are required to take one of the following classes : Korean classes (2 credits or more) or seminar class (BiS986, 2 credits))

※ The course credits earned in the Master's course work can be used towards the Doctoral degree(except research credits).

#### □ Measures for Change

1. Undergraduate Courses

All requirements apply to students entering after 2009. But, students entering before 2009 can choose between the previous requirements and current requirements. 2 credits of seminar (BiS496) in research credits are required for students entering after 2005.

\* alternative subject

- BiS331 Bio Computer Engineering → BiS431 Bio-Data Engineering or BiS438 Bioinformatics

## 2. Master's Courses

This requirements apply to students entering 2010. But, students entering before 2010 can choose between the previous requirements and current requirements. 2 credits of seminar in research credits are required for students entering after 2005, 2 credits of Biofusion seminar in research credits are required for students entering after 2007(Foreign students are required to take one of the following classes : Korean classes (2 credits or more) or seminar class (BiS966, 2 credits)).

## 3. Doctoral Courses

This requirements apply to students entering 2010. But, students entering before 2010 can choose between the previous requirements and current requirements. 2 credits of seminar in research credits are required for students entering after 2005, 2 credits of Biofusion seminar in research credits are required for students entering after 2007(Foreign students are required to take one of the following classes : Korean classes (2 credits or more) or seminar class (BiS986, 2 credits)).

## 4. Integrated Master's and Doctoral Degree Courses

- Students who entered the program in between 2005 and 2008 must take Seminar for Master's (2 credits) and Seminar for Doctoral (2 credits).
- For students who enter the program in 2009, general rules for Integrated Master's and Doctoral Degree Program ("6.3. The curriculum credits and research credits earned from the Master's course may be cumulatively counted") are applied.