

## Course Requirements

### □ Under Graduate

#### B.S. Course

General Course			Basic Course			Major Course			Free Selective Course	Research	Total
Required	Selective	Subtotal	Required	Selective	Subtotal	Required	Selective	Subtotal			
7(8AU)	21	28(8AU)	23	9	32	6	35	41		4	130

#### Graduate

#### M.S. Course

Core Course	Major Course		Research	Total
	Required	Selective		
3		27(18)	10(seminar 3)	40

#### Ph.D. Course

Core Course	Major Course		Research	Total
	Required	Selective		
3		45(18)	30	78

### □ Undergraduate Program

#### A. Graduation Credits

At lease 130 credits in total

#### B. Completion of General Course : At least 28 credits

- Required General Course : 7 credits and 8AU (1AU means 1 hour activity/work a week for a semester)
  - Students who entered the KAIST in or before 2006
    - "English I," "English II," and "Writing" : 7 credits
    - 4 AU of "Community Service"(64 hours), 4AU of "Physical Education"(64 hours) : 8 AU
  - Students who enter the KAIST in or after 2007
    - "English Communication I", "English Communication II", "English Reading & Writing", and "Writing" : 7 credits
    - 2 AU of "Community Service"(32 hours), 4AU of "Physical Education"(64 hours), 2AU of "Humanity/Leadership": 8 AU
- ※ AU is not counted for GPA but required for graduation.
- Selective Course in Humanities & Social Science : at least 21 credits (at least 7 courses)
  - Take at least 1 course from each of 5 divisions (15 credits) : Science Technology; Literature and Art; History and philosophy; Social Science; Foreign Language and Linguistics. the rest course ( 6 credits) can be chosen regardless of the divisions.

C. Completion of Basic Course: at least 32 credits

- Required Basic Course: 32 credits (Take 1 course among the following courses)
  - ① 1 course among Basic Physics I (3), General Physics I (3), and Advanced Physics I (3)
  - ② 1 course among Basic Physics II (3), General Physics II (3), and Advanced Physics II (3)
  - ③ 1 course of General Physics Laboratory. I (1)
  - ④ 1 course of Basic Biology (3) and 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) and Advanced Chemistry Lab. II (1)
  - ⑨ 1 course of Basic Programming (3) and Advanced Programming (3)
- Selective Basic Course: at least 9 credits

D. Major Course : at least 41 credits

- Required Major Course : 6 credits  
Molecular Engineering Laboratory (3), Chemical and Biomolecular Engineering Laboratory (3)
- Selective Major Course : at least 35 credits

E. Free Selective Course :

F. Completion of Research Course : at least 4 credits

- Graduation research (3) - required
- Department Seminar (1) - required in senior year
- Individual Study ( at most 2 credit)

G. English Language Proficiency Requirements for Graduation

- One of the following requirements should be satisfied for graduation before entering school or while in school:
  - PBT TOEFL(ITP) score : at least 560
  - CBT TOEFL score : at least 220
  - iBT TOEFL score: at least 83
  - TOEIC score : at least 760
  - TEPS score : at least 670

H. Minor and Double Major

- Minor : at least 18 credits
  - Required Major Course: 3 credit, Selective Major Course : 15 credits
- Double Major : at least 41 credits (same requirement for major student)

## □ Master's · Doctoral Programs

1) Master's Program : at least 40 credits (at least 30 credits of coursework and 10 credits of reserch)

- Common required course (3) - Choose one of the following.

English Thesis writing, Introduction to Computers and Applications, Probability and Statistics, Introduction to Material Science, Engineering Economics, Instrumentation, and Interpretership and Management Strategy, Patent Analysis and Invention Disclosure

- Major required course (0) none

- Major Selective course (27)

Research and Experiment in Chemical and Biomolecular Engineering is not a required course but the department strongly recommend to take this course and is critical for graduation. (It is required, at least, to take 18 credit from the lectures offered by the department.)

- Research (10)

Common Required Course	Major Course		Research	Total
	Required	Selective		
3		27(18)	10(seminar 3)	40

2) Doctoral Program : at least 78 credits (at least 48 credits of coursework and 30 credits of reserch)

- Common required course (3) - Choose one of the following.

English Thesis writing, Introduction to Computers and Applications, Probability and Statistics, Introduction to Material Science, Engineering Economics, Instrumentation, and Interpretership and Management Strategy, Patent Analysis and Invention Disclosure

- Major required course (0) none

- Major Selective course (45)

Research and Experiment in Chemical and Biomolecular Engineering is not a required course but the department strongly recommend to take this course and is critical for graduation. (It is required, at least, to take 18 credit from the lectures offered by the department.)

- Research (30)

- The courses that are taken for MS degree (which is higher than 500 course number) are acknowledged as part of the course requirement but not the research credit.

Common Required Course	Major Course		Research	Total
	Required	Selective		
3		45(18)	30	78