Course Requirements

❒ Undergraduate Program

General Courses			Basic Courses			Major Courses			Elective Courses	Research	Total
Mandatory	Elective	Subtotal	Mandatory	Elective	Subtotal	Mandatory	Elective	Subtotal			
7(8AU)	21	28(8AU)	23	9	32	18	24	42	24	4	130

A. Graduation Credits

At least 130 credits total

B. General Course Requirements: at least 28 credits

○ Mandatory General Courses : 7 credits and 8 AU (1 AU means 1 hour activity/work a week for a semester)

- English I, English II, Writing Course : 7 credits

※ The student who enter with a high TOEFL score can use this to fulfil required courses English I or II.

- Community Service (4 AU: 64 hours) and Physical Education (4 AU: 64 hours)

※ AU is not counted for GPA but is mandatory for graduation.

○ Elective Courses in Humanities & Social Science : at least 21 credits (at least 7 courses)

- Take (15 credits) 1 course from each of 5 divisions : Science Technology; Literature and Art; History and philosophy; Social Science; Foreign Language and Linguistics
- Remaining courses can be chosen regardless of the division.

※ Requirement for Foreign Language and Linguistics: students should take at least 1 course of a second foreign language other than English.

C. Basic Course Requirements: at least 32 credits

○ Mandatory Basic Courses: 23 credits (1 course from each of the following 9 categories)

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 Advanced 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 Differentials & Integrals I (3) or Advanced Differentials & Integrals I (3)
⑥ 1 course of Differentials & Integrals II (3), or Advanced Differentials & Integrals 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. II (1)
⑨ 1 course of Basic Programming (3) or Advanced Programming (3)

○ Elective Basic Courses: Including General Chemistry II (3) at least 9 credits

D. Major Course Requirements: at least 42 credits

○ Mandatory Major Courses : at least 18 credits

Molecular Biology, Biochemistry I, Biochemistry II, Biochemistry Experiment, Cell Biology, Physical Chemistry for Life Science.

○ Elective Major Courses : at least 24 credits

Genetics, Laboratory in Cell Biology & Genetics, Developmental Biology, Evolution and Ecology or Introductory Biotechnology, Biotechnology Experiment, Microbial and Cell Biotechnomogy, Biotechnology I.

E. Research Course Requirements: at least 4 credits

○ Thesis Research (Required): at least 3 credits

○ Specified Research (Required): at least 1 credits

○ Seminar (Elective): at least 2 credits

F. Elective Courses: Including Organic Chemistry I at least 24 credits (offered by the Dept. of Chemistry)

G. English Language 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
- TOEIC score : at least 760
- TEPS score : at least 670

H. Minor and Double Major

○ Double Major: Same as requirements mentioned above (completion of the Thesis Research course and other research courses for the second major is not mandatory for students who entered in or after 2001).

○ Minor Major: The students should take 21 credits of the major courses including 12 credits of courses with -0- or -1- or with -0- and -2- in the tenth digit.

❒ Master's Programs

Mandatory General Course	Major Course		Research	Total
	Mandatory	Elective		
3	-	15	18	36

1) Thesis Master's Degree Program

A. Graduation Credits: At least 36 credits total

B. Mandatory General Course: 3 credits

○ One course among CC510 Introduction to Computer Application, CC511 Probability and Statistics, CC512 Introduction to Materials Science and Engineering, CC513 Engineering Economy and Cost Analysis, CC522 Introduction to Instruments

○ Be sure to take the non-credit Leadership Class (CC010), mandatory for students who entered during or after the 2002 academic year.

C. Mandatory Major Course: None.

D. Elective Major Course: 15 credits.

E. Research: Within 18 credits including 2 from Seminar (Ordinary scholarship students need to earn at least one credit from Seminar).

2) Coursework Master's Degree Program

A. Graduation Credits: At least 36 credits total

B. Mandatory General Course: 3 credits

○ One course among CC510 Introduction to Computer Application, CC511 Probability and Statistics, CC512 Introduction to Materials Science and Engineering, CC513 Engineering Economy and Cost Analysis, CC522 Introduction to Instruments.

○ Be sure to take the non-credit Leadership Class (CC010), mandatory for students who entered during or after the 2002 academic year.

C. Mandatory Major Course : None.

D. Elective Major Course : 21 credits.

E. Independent Study in M.S. : Within 12 credits including 2 from Seminar (Ordinary scholarship students need to get at least 1 credit from Seminar).

* Applies to to-be Ph.D. candidates only.

❒ Doctoral Programs

Mandatory Course	Major Course		Research	Total
	Mandatory	Elective		
3	-	24	45	72

A. Graduation Credits: At least 72 credits total.

B. Mandatory General Course: 3 credits.

C. Mandatory Major Course: -

D. Elective Major Course: 24 credits.

E. Research: Within 45credits including 4 from Seminar (Ordinary scholarship students need to get at least 1 credit from Seminar).

* Credits taken during the master's program at KAIST are automatically transferred to the Ph.D. program.

* The seminar requirement is applied to all graduate students enrolled.