

## Course Requirements

### □ Undergraduate Requirement

| General Course |          |           | Basic Course |          |          | Major Course |          |          | Elective Course | Research | Total |
|----------------|----------|-----------|--------------|----------|----------|--------------|----------|----------|-----------------|----------|-------|
| Mandatory      | Elective | Subtotal  | Mandatory    | Elective | Subtotal | Mandatory    | Elective | Subtotal |                 |          |       |
| 7 (8 AU)       | 21       | 28 (8 AU) | 23           | 9        | 32       | 9            | 38       | 47       | 19              | 4        | 130   |

A. Required Credits for Graduation: at least 130 credits.

B. General Course Requirements: at least 28 credits & 8 AU

○ Mandatory General Courses: 7 Credits and 8 AU

- 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.

○ Elective General Courses in Humanities & Social Science: at least 21 Credits

- Take at least 1 course in each 5 divisions: Science and Technology, Literature and Art, History and Philosophy, Social Science, Foreign Language and Linguistics.

C. Basic Course Requirements: at least 32 credits

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

① 1 course: Fundamental Physics I (3), General Physics I (3), or Advanced Physics I (3)

② 1 course: Fundamental Physics II (3), General Physics II (3), or 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 Calculus I (3) or Honor Calculus I (3)

⑥ 1 course of Calculus II (3), or Honor Calculus II (3)

⑦ 1 course: Basic Chemistry I (3), General Chemistry I (3), or 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)

○ Elective Basic Courses: at least 9 credits.

- Introduction to Linear Algebra (3), Applied Differential Equations (3), Applied Mathematical Analysis (3).

D. Major Course Requirements: at least 47 credits

○ Mandatory Major Courses: 21 credits

- Electronics Lab I , Electronics Lab II, Electronics Design Lab.

○ Elective Major Courses: at least 38 credits.

- Select at least 4 courses from the following 8 underlined courses:

Circuit Theory, Signals and Systems, Digital System Design, Electromagnetics I, Electronic Circuits I, Electronic Circuits II, Introduction to Physical Electronics, Programming for Electrical Engineering.

- Individual Study counts up to 4 credits.

E. Elective Course Requirements: at least 19 credits

- from all courses in the undergraduate program.

F. Research Course Requirements: at least 4 credits

- B.S Thesis Research (3), Seminar (1)

G. English Language Requirements

One of the following requirements should be satisfied before graduation:

- PBT TOEFL 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. EE Minor and EE Double Major

○ EE Minor: at least 21 credits in major courses including

- Circuit Theory, Signals and Systems, Digital System Design, Electromagnetics I, Electronic Circuits I, Electronics Lab I.

○ EE Double Major:

- At least 9 credits in mandatory major courses, and at least 38 credits in elective major courses.
- Select at least 4 courses from the following 8 underlined courses:

Circuit Theory, Signals and Systems, Digital System Design, Electromagnetics I, Electronic Circuits I, Electronic Circuits II, Introduction to Physical Electronics, Programming for Electrical Engineering.

### □ Master's and Doctoral Programs

#### 1) Master's Program

| General Course | Major Course |            | Research  | Total |
|----------------|--------------|------------|-----------|-------|
|                | Mandatory    | Elective   |           |       |
| 3              | 3            | 18 or more | 6 or more | 36    |

○ Required Credits for Graduation: at least 36 credits.

○ General Courses: 3 credits

- 1 course of CC500 Science Writing in English, CC510 Introduction to Computer Application, CC511 Probability and Statistics (Substitutive subject: EE521), CC512 Introduction to Materials and Engineering, CC513 Engineering Economy and Cost Analysis, CC530 Entrepreneurship and Business Strategies, or CC531 Patent Analysis and Invention Disclosure.
- General Courses can not be counted as elective major credits.

○ Mandatory Major Courses: 3 credits

- Electrical Engineering Lab.

○ Elective Major Courses: at least 18 credits

- At least 2 courses from the EE500-level or above.
- At least 4 courses among
  - EE400-level courses designated as common course for BS and M.S.
  - xx500-level or above.

○ Research: at least 6 credits

- M.S. Thesis (at least 4 credits), Seminar (1), Technical Writing (1)

#### 2) Doctoral Program

| General Course | Major Course |          | Research | Total |
|----------------|--------------|----------|----------|-------|
|                | Mandatory    | Elective |          |       |
| 3              | 3            | 36       | 31       | 73    |

○ Required Credits for Graduation: at least 73 credits in total.

○ General Course: 3 credits (Same as M.S.)

- Mandatory Major Courses: 3 credits (Same as M.S.)
- Elective Major Courses: at least 36 credits
  - At least 2 courses among EE600 level or above.
  - At least 2 courses from the EE500-level or above.
  - xx500 or above.
  - Credits taken in the master's program except research and seminar credits can be accumulatively counted towards doctoral program credit. (EE400-level courses designated as common course for B.S. and M.S. are also counted.)
- Research: at least 31 credits including Seminar (1)

※ Taking Undergraduate Courses in Doctoral Program:

Doctoral students who obtained a B.S. degree from another department can take up to 6 credit hours of undergraduate courses after approval of the research advisor and the department chair.