

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	40	49	18	3	130

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

B. General Courses: at least 28 credits & 8 AU

▶ **Mandatory Cultural Courses:** 7 Credits and 8 AU

- English I, English II, Writing Course: 7 Credits
- Community Services (4 AU, 64 hr), Athletics (4 AU, 64 hr)

▶ **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 Courses: at least 32 credits

▶ **Mandatory Basic Courses:** 23 credits. Take 1 course in each area:

- 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 Differential & Integral Calculus I (3) or Advanced Differential & Integral Calculus I (3)
- ⑥ 1 course of Differential & Integral Calculus II (3) or Advanced Differential & Integral Calculus II (3)
- ⑦ 1 course of 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.

D. Major Courses: at least 49 credits

▶ **Mandatory Major Courses:** 9 credits

- Basic Mechanical practice(3), Mechanical Engineering Laboratory(3), Capstone Design I(3)

▶ **Elective Major Courses:** at least 40 credits.

- Select at least 6 courses out of 8 courses:
Thermodynamics (3), Fluid Mechanics (3), Mechanics of Materials (3), Dynamics (3), Applied Electronics (3), Engineering Design (3), Modeling and Control of Engineering Systems (3), Understanding of Materials and Processing (3).

E. Elective Courses: at least 18 credits

F. Research Courses: at least 3 credits

- B.S Thesis Research (3)

G. English Language Requirement

One of the following requirements should be satisfied before graduation:

- PBT TOEFL score: at least 560
- TOEIC score: at least 760

H. ME Minor and ME Double Major

▶ **ME Minor:** at least 21 credits in major courses including

- Basic Mechanical practice(3), Mechanical Engineering Laboratory(3),

Capstone Design I(3), **Elective Major Courses** at least 4 courses out of 8 Basic ME Elective courses

▶ **ME Double Major:**

- At least 9 credits in required major courses, and at least 48 credits in Elective major courses.
- Select at least 6 courses out of 8 Basic ME Elective courses:

Thermodynamics (3), Fluid Mechanics (3), Mechanics of Materials (3), Dynamics (3), Applied Electronics (3), Engineering Design (3), Modeling and Control of Engineering Systems (4), Understanding of Materials and Processing (3).

□ **Master's and Doctoral Programs**

1) Master's Program

General Course	Major Course		Research	Total
	Mandatory	Elective		
3	-	21	12 or less	36

▶ **Required Credits for Graduation: at least 36 credits.**

▶ **General Courses:** 3 credits

- 1 course among Introduction to Computer Application, Probability and Statistics, Introduction to Materials and Engineering , Engineering Economy and Cost Analysis, Introduction to Instruments, Entrepreneurship and Business Strategies.

▶ **Mandatory Major Courses:** NONE.

▶ **Elective Major Courses:** at least 21 credits.

▶ **Research:** at least 12 credits.

2) Doctoral Program

General Course	Major Course		Research	Total
	Mandatory	Elective		
3	-	39	30 or more	72

▶ **Required Credits for Graduation:** at least 72 credits in total.

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

▶ **Mandatory Major Courses:** NONE.

▶ **Elective Major Courses:** at least 39 credits.

▶ **Research:** at least 30 credits.