

**Major Course Requirements for  
Dept. of Mechanical Engineering**  
(For undergraduate students admitted in 2015 or before)

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**Please check the common graduation requirements.**

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■ **Credit Requirement for Graduation:** Required to complete a total of more than 130 credits

■ **Elective Basic Courses**

- Take 9 credits with at least 2 courses out of Introduction to Linear Algebra, Differential Equations and Applications, and Applied Mathematical Analysis.
- ※ Students having a double major take 3 credits.

■ **Major:** at least 59 credits

○ **Mandatory Major Courses:** 12 credits

(from students entering KAIST in 2014 and thereafter)

Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design I(3), Engineering Design(3)

- To students entering KAIST in 2012 and before: 9 credits

Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design I(3)

- From students entering KAIST in 2013 and thereafter: 9 credits

Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design I(3)

○ **Elective Major Courses:** at least 47 credits

(from students entering KAIST in 2014 and thereafter)

- \* Select at least 7 courses out of 9 courses:

Solid Mechanics(3), Dynamics(3), Modeling and Control of Engineering Systems(3), Thermodynamics(3), Heat Transfer(3), Fluid Mechanics(3), Applied Electronics(3), Understanding of Materials and Processing(3), Mechanical Vibrations(3)

- \* Major course credits from other majors are only approved up to 10 credits.

- To students entering KAIST in 2012 and before: at least 40 credits

- \* Select at least 6 courses out of 8 courses:

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

- From students entering KAIST in 2013 and thereafter: at least 40 credits

- \* Select at least 6 courses out of 8 courses:

Solid Mechanics(3), Engineering Design(3), Dynamics(3), Modeling and Control of

Engineering Systems(3), Thermodynamics(3), Fluid Mechanics(3), Applied Electronics(3), Understanding of Materials and Processing(3)

\* From students entering KAIST in 2013 and thereafter, they should take major course credits from other majors up to 10 credits.

■ **Minor:** at least 21 credits

- including mandatory major courses 'Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3), Capstone Design I(3)' and at least 4 elective major courses out of 9 Basic ME Elective courses.

■ **Double Major:** at least 40 credits

- ※ In the event that major courses and double-major/minor courses overlap(that is to say, such cases stipulated in department's course requirements, or designated as a substitute subject in the course curriculum), up to 9 credits can be applied to both courses of study.
- ※ Completion of minor and double major courses is based on the requirements of the admission year or the time of application.
- ※ In case of completing minor and double major courses, the credits taken for minor and double major are included into the ones for graduation (credits of General Elective Course among 130 credits)

■ **Research Courses:** at least 3 credits

- Taking at least 3 credits of Research Courses is mandatory, but the students can take Capstone Design II (3) instead. (Students having a double major are exempt)
- Individual Study credits are approved as Research Courses credits up to 4 credits, and Seminar credits are approved as Elective Course credits

□ **Transitional measures**

Students admitted in 2015 or before may choose to be governed by the completion requirements applicable to students admitted in 2016 and after if desired.

**Major Course Requirements for  
Dept. of Mechanical Engineering  
(For undergraduate students admitted in 2016 and after)**

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**Please check the common graduation requirements.**

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■ **Credit Requirement for Graduation:** Required to complete a total of more than 136 credits

※ Required to choose and complete one among Advanced Major, Double Major, Minor, and Individually Designed Major.

■ **Major:** at least 48 credits

○ **Mandatory Major Courses:** 12 credits

Basic Mechanical Practice(3), Mechanical Engineering Laboratory(3),  
Capstone Design I(3), Engineering Design(3)

○ **Elective Major Courses:** 36 credits

Select at least 5 courses out of 9 courses:

Solid Mechanics(3), Dynamics(3), Modeling and Control of Engineering Systems(3), Thermodynamics(3), Heat Transfer(3), Fluid Mechanics(3), Applied Electronics(3), Understanding of Materials and Processing(3), Mechanical Vibrations(3)

■ **Advanced Major:** at least 15 credits

○ at least 15 credits in major courses excluding completed courses from general major

○ should take all 9 basic elective major courses

■ **Individually Designed Major:** at least 12 credits

- at least 12 credits in major courses of 2 other departments except the affiliated department

■ **Minor:** at least 21 credits

- at least 21 credits in major courses including 2 mandatory major courses

※ The credits taken for minor and double major are not counted as major courses graduation requirements of ME.

■ **Double Major:** at least 40 credits

- at least 40 credits including mandatory major courses(12 credits)

※ The credits taken for minor and double major are not counted as major courses graduation requirements of ME.

■ **Research Courses:** at least 3 credits

- Taking at least 3 credits of Research Courses is mandatory, but the students can take

Capstone Design II (3) instead. (Students having a double major are exempt)

- Individual Study credits are approved as Research Courses credits up to 4 credits, and Seminar credits are approved as Elective Course credits

☐ **Transitional measures**

Students admitted in 2015 or before may choose to be governed by the completion requirements listed above if desired.

**Major Course Requirements for  
Dept. of Mechanical Engineering  
(Master's Program)**

**Thesis Master's Degree Program**

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**Please check the common graduation requirements.**

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■ **Credit Requirement for Graduation:** Required to complete a total of more than 36 credits

■ **Mandatory General Courses(CC):** 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 / CC522 Introduction to Instruments / CC530 Entrepreneurship and Business Strategies.

- ※ CC010 Special Lecture on Leadership (non-credit, this applies to students entering KAIST in 2002 and thereafter; general scholarship students, foreign students, and Changwon-KAIST program students are excluded)

- ※ CC020 Ethics and Safety I (1AU)

- ※ CC532 Collaborative System Design and engineering credits are received as CC courses to only Renaissance Program students. Changwon-KAIST program students and general scholarship students.

■ **Mandatory Major Courses:** NONE

■ **Elective Courses:** at least 21 credits

- Should take more than 12 credits offered by the ME department. For dual degree students (except KAIST-TUB dual degree) can transfer credits to mechanical engineering course if selective course is already granted credit recognition in other universities)

■ **Research Courses:** at least 12 credits (including 2 credits of Seminar)

- Foreign students, Changwon-KAIST program students and general scholarship students of after 2009 admission are exempt from seminar credits

□ **Transitional Measures**

- These requirements apply to all students from March 1st, 2016.
- Substitutive courses for the abolished courses are determined by the department, and they are to be announced on the website.

(<http://me.kaist.ac.kr/mekaist-kr/>).

**Major Course Requirements for  
Dept. of Mechanical Engineering  
(For Doctoral Program)**

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**Please check the common graduation requirements.**

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☒ **Credit Requirement for Graduation:** Required to complete a total of more than 69 credits

☒ **Mandatory General Courses(CC): 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 / CC522 Introduction to Instruments / CC530 Entrepreneurship and Business Strategies.

☒ **Mandatory Major Courses:** NONE

☒ **Elective Courses:** at least 36 credits

☒ **Research Courses:** at least 30 credits

☒ **Miscellaneous:**

- The course requirements for Ph.D. students who have graduated from other universities or other majors must be decided by the recommendation of Academic Advisor, Curriculum Committee and the department chair's approval.

☐ **Transitional Measures**

- These requirements apply to all students from March 1st, 2016.
- Substitutive courses for the abolished courses are determined by the department, and they are to be announced on the website.  
(<http://me.kaist.ac.kr/mekaist-kr/>).

☐ **Miscellaneous**

- The course credits earned from the master's course may be cumulatively counted (exclude research credits).

**Major Course Requirements for  
Dept. of Mechanical Engineering  
(For MS-PhD Integrated Program)**

- The curricula of existing master's and PhD programs are followed.
- The course credits and research credits earned from the master's course may be cumulatively counted.

※ These requirements apply to all students from February 1st, 2009.