Major Course Completion Requirements of Dept. of Aerospace Engineering

(For undergraduate students admitted in 2015 or before)

Please check the common graduation requirements.

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

▣ **Elective Basic Courses:** at least 9 credits (including at least two courses among MAS109, MAS201 and MAS202)

- at least 6 credits for students entering in 2011 and before

※ Students with a double major take more than 6 credits including one course among MAS109, MAS201, MAS202.

▣ **Major:** at least 49 credits

- **Mandatory Major Courses:** at least 19 credits

Admission Year	Mandatory Major Courses	Admission Year	Mandatory Major Courses
-'14	MAE210,211 Thermodynamics (AE210 Aerospace Thermodynamics)	'15 -	AE210 Aerospace Thermodynamics (MAE210,MAE211 Thermodynamics)
	MAE220, MAE221 Fluid Mechanics (AE220 Aerodynamics Ⅰ)		AE220 Aerodynamics Ⅰ (MAE220,MAE221 Fluid Mechanics)
	MAE230, MAE231 Solid Mechanics (AE230 Mechanics of Aerospace Materials)		AE300 Flight Mechanics Project (MAE365 Flight Mechanics)
	MAE250, MAE251 Dynamics (AE250 Aerospace Dynamics)		AE308 Aerospace Engineering Laboratory Ⅰ (MAE308 Aerospace Engineering Laboratory Ⅰ)
	MAE308 Aerospace Engineering Laboratory Ⅰ (AE308 Aerospace Structures Ⅰ)		AE309 Aerospace Engineering Laboratory Ⅱ (MAE309 Aerospace Engineering Laboratory Ⅱ)
	MAE309 Aerospace Engineering Laboratory Ⅱ (AE309 Aerospace Engineering Laboratory Ⅱ)		AE330 Aerospace Structures Ⅰ (MAE335 Aerospace Structure)
	MAE405 Aerospace System Design Ⅰ (AE400 Aerospace System Design Ⅰ)		AE400 Aerospace System Design Ⅰ (MAE405 Aerospace System Design Ⅰ)

(AE210 Aerospace Thermodynamics and ME211 Thermodynamics is replaceable)

- **Elective Major Courses:** at least 30 credits

(AE230 Mechanics of Aerospace Materials and ME231 Solid Mechanics, AE311 Aerospace Heat Transfer and ME311 Heat Transfer, AE370 Numerical Methods and ME301 Numerical Analysis are replaceable each other)

▣ **Minor:** at least 21 credits

- at least 21 credits in Major courses including 4 Mandatory Major courses

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

- at least 40 credits including 19 credits in Mandatory Major courses

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

- It is required to take B.S. thesis study or Aerospace System Design II.
  (Individual study is approved as research courses up to 4 credits)
  ※ Students having a double major are not required to take Research Course.

☐ **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.
- In case in which students entering KAIST in 2014 and before are unable to satisfy the requirements of Mandatory Major courses due to a course revision or substitution, the students should earn more Elective credits by the same amount that is deficient in Mandatory Major course.
- Substitutive courses for the changed courses are determined by the department, and they are to be announced on the website. (ae.kaist.ac.kr)

Major Course Completion Requirements of Dept. of Aerospace Engineering

(For undergraduate students admitted in 2016 and after)

Please check the common graduation requirements.

▣ **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 42 credits

- **Mandatory Major Courses:** 19 credits
  (AE210 Aerospace Thermodynamics and ME211 Thermodynamics is replaceable)
- **Elective Major Courses:** 23 credits
  (AE230 Mechanics of Aerospace Materials and ME231 Solid Mechanics, AE311 Aerospace Heat Transfer and ME311 Heat Transfer, AE370 Numerical Methods and ME301 Numerical Analysis are replaceable each other)

▣ **Advanced Major:** at least 18 credits

Subject No.	Subject Name
AE321	Compressible Aerodynamics
AE331	Aerospace Structures Ⅱ
AE401	Aerospace System Design Ⅱ
AE405	Satellite Systems
AE410	Combustion Engineering
AE420	Viscous Aerodynamics
AE435	Vibration & Basic Aeroelasticity
AE450	Flight Dynamics and Control
AE455	Global Positioning System
AE480	Aerospace Applied Electronics
AE492	Special Lectures in Aerospace Engineering
AE493	Special Lectures in Aerospace Engineering Ⅱ

※ Same subject can not be double-counted (Only one (advanced major or major courses) is acceptable)

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

- at least 12 credits of major courses in two or more other departments except the belonging department

▣ **Minor:** at least 18 credits

- at least 18 credits including 9 credits in Mandatory Major courses

※ AE major courses can not overlap with major courses from other department.

▣ **Double Major:** at least 42 credits

- 42 credits at least including 19 credits in Mandatory Major courses

※ AE major courses can not overlap with major courses from other department.

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

- It is required to take B.S. thesis study(3 credits) or Aerospace System Design Ⅱ.

(Individual study is approved as research courses up to 4 credits)

※ Students having a double major are not required to take Research Course.

☐ **Transitional measures**

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

Major Course Completion Requirements of Dept. of Aerospace Engineering

(For Master's Program)

Thesis Master's Degree

Please check the common graduation requirements.

▣ **Credit Requirement for Graduation:** Required to complete a total of more than 33 credits

▣ **Mandatory General Courses:** 3 credits and 1AU

▣ **Elective Courses:** at least 18 credits

Students entering KAIST in 2016 and thereafter : at least 9 credits in Aerospace Engineering courses)

▣ **Research Courses:** at least 12 credits

☐ **Transitional measures**

① The above requirements are applicable to students entering KAIST in 2016 and thereafter.

- Students entering KAIST in 2015 and before should earn 18 credits at least.

(At least 15 credits should be obtained from courses opened in school of Mechanical and Aerospace Engineering, including over 6 credits of Aerospace Engineering courses(AEXXX).)

② Substitutive courses for the changed courses are determined by the department, and they are to be announced on the website. (ae.kaist.ac.kr)

Major Course Completion Requirements of Dept. of Aerospace Engineering

(For Doctoral Program)

Please check the common graduation requirements.

▣ **Credit Requirement for Graduation:** Required to complete a total of more than 60 credits

▣ **Mandatory General Courses:** 3 credits and 1AU

▣ **Elective Courses:** at least 27 credits

- Students entering KAIST in 2016 and thereafter : at least 12 credits in Aerospace Engineering courses)

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

☐ **Transitional measures**

① Students entering KAIST in 2015 and before should earn 27 credits at least.
(At least 15 credits should be obtained from courses opened in school of Mechanical and Aerospace Engineering, including over 6 credits of Aerospace Engineering courses(AEXXX).)

② Substitutive courses for the changed courses are determined by the department, and they are to be announced on the website. (ae.kaist.ac.kr)