

Graduation Requirements for Bachelor Program

Department of Aeronautics and Astronautics, NCKU

Minimum 129 credits required for graduation including:

- (1) 32 credits of General Education
 - (2) 69 credits of Required Course
 - (3) 28 or above credits of Elective Course
 - (4) 3 semesters Service Study
 - (5) 4 semesters Physical Education.
1. Total 32 credits of General Education which included core courses of general education (16 credits), Interdisciplinary courses and Comprehensive courses (16 credits).
- (1) General Education Core Courses (16 credits), included 4 categories:
 - a. Basic Chinese (1st and 2nd semester, total 4 credits): Chinese (1) and Chinese (2).
 - b. International Language (4 semester English courses in first and second years, total 4 credits). Students are required to fulfill threshold of department regulations. For English speaking country students, they have to attend other language courses.
 - c. History and Citizenship (4 credits): Constitutional Democracy System, Public Management, Introduction to Jurisprudence, Jurisdiction and Human Rights, Civil Society, Introduction to History, History and Culture, Historical Texts and History, History of Social Economy, Women History, Oral History, (ancient civilization), (History of overseas Chinese), and etc.
 - d. Philosophy and Art (4 credits): Introduction to Philosophy, (logic studies), Ethics, Environmental Ethics, Engineering Ethics, Professional Ethics, Live Ethics, Philosophy of Technology, Philosophy of Law and Politics, Philosophy of Religion, (Introduction to Aesthetics) 、 (introduction to visual arts), Introduction to Performance Arts, Introduction to Musicology, Environmental Art, Art History & Art Criticism, (folk arts) 、 (Instruments and Culture), Introduction to Museum Studies, Art Appreciation and Participation and etc. Option for student.

Remark*: The standard threshold of English Exit Exam for Department AA shown as below (choose 1 of 4 options)

- General English Proficiency Test (GEPT): required to demonstrate High-Intermediate level or above.
- TOEFL IBT score 87 or CBT score 220 and above (about equals to 550 scores TOEFL ITP).
- International English Language Testing System (IELTS): graded 6.0 or above.
- TOEIC scores 785 and above.

(2) Students who don't pass the English Exit Exam by the third-year study are required to attend a semester [On Line Remedial English] course (required course, 0 credit) for graduation.

(3) Interdisciplinary course: require at least 10 credits, no more than 14 credits. Including 4 categories: Category of Humanities, Category of Social Sciences, Category of Natural and Engineering Sciences, and Category of Life Sciences and Health.

- a. At least attend a course of Category of Humanities, Category of Social Sciences, and Category of Life Sciences and Health.
- b. The selections of interdisciplinary courses are not covered in required and elective courses of Department AA.
- c. If the course content covers multiple categories, can be classified as "Interdisciplinary Integration". The credits are claimed as related categories.
- d. If you do attend other department courses as interdisciplinary courses, it's necessary to have approval by department office and Center of General Education. Application has to be submitted during the semester while attending the course.
- e. For other related regulations, please refer to "Unrecognized GE credits Criteria, Department of Aeronautics and Astronautics, NCKU"

(4) Comprehensive course: require at least 2 credits, no more than 6 credits. Including the Forum for Leadership, the Practice of General Education, and Lecture Tour on General Education.

2. Required Courses (63 credits)

1st Semester: Calculus (1) - 3 credits, Introduction of Aeronautical Engineering – 1 credit, Engineering Graphics - 1 credit, Statics - 2 credits, Physics – 3 credits, Machine Shop Practices – 1 credit.

2nd Semester: Calculus (2) - 3 credits, Mechanical Engineering Drawing – 1 credit, Dynamics – 3 credits, Engineering Materials Science – 3 credits.

3rd Semester: Engineering Mathematics (1) – 3 credits, Electronic Circuits – 3 credits, Thermodynamics (1) – 3 credits, Mechanics of Materials – 3 credits.

4th Semester: Engineering Mathematics (2) – 3 credits, Aircraft Structures – 3 credits, Structure and Material Laboratory – 1 credits, Fluid Dynamics – 3 credits.

5th Semester: Aerodynamics (1) – 3 credits, Heat Transfer – 3 credits, Introduction to Control

Systems – 3 credits, Thermal-Fluid Lab. – 1 credits.

6th Semester: Flight Mechanics – 3 credits, Aircraft Engines – 3 credits, Guidance and Control Laboratory – 1 credits, Aircraft Design – 3 credits.

3. Required Elective courses: (multiple selections, 6 credits), more than 6 credits courses will be classified as elective course credits.
 - (1) Choose 1 of 2: Computer Programming – 3 credits, C Programming Language and The Basic Computer Interface – 3 credits.
 - (2) Choose 1 of 3: Thermodynamics (2) – 3 credits, Aerodynamics (2) – 3 credits, Aircraft Structures – 3 credits.
4. Elective Courses: At least 15 credits and above on DAA elective courses, and total 28 credits and above.
5. Service Study (3 semesters): Service Study (1) – 0 credit, Service Study (2) – 0 credit, Service Study (3) – 0 credit.
6. Physical Education: 0 credit for 4 semesters.