

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designed as critical (!) must be completed in the semester listed to ensure a timely graduation.

| Critical | Course Subject and Title | Credit Hours | Min. Grade | Major GPA | Attribute | Notes |
|---|---|--------------|----------------|-----------|-----------|-------|
| Semester One [16 Credits] | | | | | | |
| ! | AERN 15000 Introduction to Aeronautics | 3 | | ■ | | |
| ! | AERN 15745 Non-Pilot Elements of Flight Theory | 3 | | ■ | | |
| | TECH 13580 Engineering Graphics I | 3 | | ■ | | |
| | US 10097 Destination Kent State: First Year Experience ¹ | 1 | | | | |
| | Kent Core Requirement | 3 | | | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Two [16 Credits] | | | | | | |
| ! | MATH 12002 Analytic Geometry and Calculus I ² | 5 | | | KMC | |
| ! | PHY 23101 General University Physics I | 5 | | | KBS | |
| | AERN 25350 Fundamentals of Air Traffic Control | 2 | | ■ | | |
| | AERN 25351 Fundamentals of Air Traffic Control Laboratory | 1 | | ■ | | |
| | COMM 15000 Introduction to Human Communication | 3 | | | KAD | |
| Semester Three [17 Credits] | | | | | | |
| ! | MATH 12003 Analytic Geometry and Calculus II | 5 | | | | |
| ! | PHY 23102 General University Physics II | 5 | | | KBS | |
| | AERN 20000 Professional Development in Aeronautics I | 1 | | ■ | | |
| | AERN 25250 Elements of Aviation Weather | 3 | | ■ | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Four [16 Credits] | | | | | | |
| ! | AERN 35040 Aircraft Systems I | 3 | | ■ | | |
| ! | MATH 22005 Analytic Geometry and Calculus III | 4 | | | | |
| | ECON 22060 Principles of Microeconomics | 3 | | | KSS | |
| | Kent Core Requirement | 3 | | | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Five [16 Credits] | | | | | | |
| ! | AERN 35340 Airport Management | 3 | | ■ | | |
| ! | AERN 45030 Aircraft Systems II | 3 | | ■ | | |
| | TECH 21021 Survey of Electricity and Electronics | 4 | | ■ | | |
| | TECH 33033 Hydraulics/Pneumatics | 3 | | ■ | | |
| | TECH 33111 Strength of Materials ^F | 3 | | ■ | | |
| Semester Six [16 Credits] | | | | | | |
| ! | AERN 45150 Applied Flight Dynamics I | 3 | | ■ | | |
| | AERN 30000 Professional Development in Aeronautics II | 1 | | ■ | | |
| | AERN 45121 Advanced Aerospace Propulsion ^S | 3 | | ■ | | |
| | AERN 45130 Physiology and Human Factors of Flight | 3 | | ■ | | |
| | TECH 36620 Project Management in Engineering and Technology | 3 | | ■ | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Seven [13 Credits] | | | | | | |
| ! | AERN 45151 Applied Flight Dynamics II ^F | 3 | | ■ | | |
| ! | AERN 45250 Aviation Law | 3 | | ■ | | |
| ! | AERN 45350 Avionics | 3 | | ■ | | |
| | AERN 45291 Aerospace Senior Seminar | 1 | | ■ | | |
| | Kent Core Requirement | 3 | | | | |
| Semester Eight [13 Credits] | | | | | | |
| Note: All students must successfully complete the comprehensive exit exam requirement prior to graduation with the B.S. in Aeronautics | | | | | | |
| ! | AERN 45135 Aviation Safety Theory | 3 | | ■ | | |
| ! | AERN 45700 Aircraft Design | 4 | C | ■ | ELR | |
| ! | AERN 45791 Aviation Security and Policy Seminar ³ | 3 | C ³ | ■ | WIC | |
| | TECH 47200 Systems Engineering | 3 | | ■ | | |

Graduation Requirements Summary

| Minimum Total Hours | Minimum Upper-Division Hours 30000 – 40000 level course | Minimum Kent Core Hours | Minimum | |
|---------------------|--|-------------------------|-----------|-------------|
| | | | Major GPA | Overall GPA |
| 123 | 39 | 36 | 2.500 | 2.000 |

1. US 10097 is not required of transfer students with 25 credits (excluding College Credit Plus and dual-enrollment credit) or students age 21+ at time of admission.
2. Students not placed into MATH 12002 should take MATH 11010 and MATH 11022 (Kent Core courses) in first year of study.
3. A minimum C grade must be earned in order to fulfill the writing-intensive requirement

F Offered in fall only

S Offered in spring only

Program Note

Comprehensive Exit Exam: All students must successfully complete the comprehensive exit exam requirement prior to graduation with the B.S. in Aeronautics. Exit exam requirements are to be satisfied by all graduation candidates no later than the eighth week of the semester of intended graduation. The exit exams shall be offered during the fourth and eighth weeks of the fall and spring semesters. Students who fail will be allowed to retake the exit exams. An overall passing grade of 70 is required. Students who transfer into the aeronautics program and receive academic credit for core areas are still responsible for taking the exam in its entirety.

University Requirements: Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog: Kent Core – www.kent.edu/catalog/kent-core; Diversity Course Requirement – www.kent.edu/catalog/diversity; Writing-Intensive Course Requirement – www.kent.edu/catalog/wic; Experiential Learning Requirement – www.kent.edu/catalog/elr.

Attribute Legend: **DD** Diversity–Domestic; **DG** Diversity–Global; **ELR** Experiential Learning; **KAD** Kent Core Additional; **KBS** Kent Core Basic Sciences; **KCM** Kent Core Composition; **KFA** Kent Core Fine Arts; **KHU** Kent Core Humanities; **KMC** Kent Core Mathematics and Critical Reasoning; **KSS** Kent Core Social Sciences; **WIC** Writing Intensive