



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

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester One: [16 Credit Hours]					
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				Not required for transfer students with 25 credits
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
Semester Two: [16 Credit Hours]					
MATH 12002 Analytic Geometry and Calculus I	5				Fulfills Kent Core Mathematics and Critical Reasoning
PHY 23101 General University Physics I	5				Fulfills Kent Core Basic Sciences
AERN 25350 Fundamentals of Air Traffic Control	2			■	Must be taken together
AERN 25351 Fundamentals of Air Traffic Control Laboratory	1			■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Three: [16 Credit Hours]					
MATH 12003 Analytic Geometry and Calculus II	5				
PHY 23102 General University Physics II	5				Fulfills Kent Core Basic Sciences
AERN 25250 Elements of Aviation Weather	3			■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Four: [16 Credit Hours]					
AERN 35040 Aircraft Systems I	3	■		■	
MATH 22005 Analytic Geometry and Calculus III	4				
ECON 22060 Principles of Microeconomics	3				Fulfills Kent Core Social Sciences
TECH 33111 Strength of Materials	3	■		■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Five: [16 Credit Hours]					
AERN 35340 Airport Management	3	■		■	
AERN 45150 Applied Flight Dynamics I	3	■		■	
TECH 21021 Survey of Electricity and Electronics	4			■	
TECH 33033 Hydraulics/Pneumatics	3	■		■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Six: [15 Credit Hours]					
AERN 45030 Aircraft Systems II	3	■		■	Fulfills writing-intensive requirement; see note on page 2
AERN 45121 Advanced Aerospace Propulsion	3	■		■	Offered in spring only
AERN 45130 Physiology and Human Factors of Flight	3	■		■	
COMM 15000 Introduction to Human Communication	3				Fulfills Kent Core Additional
TECH 36620 Project Management in Engineering and Technology	3	■		■	Offered in spring only
Semester Seven: [12 Credit Hours]					
AERN 45151 Applied Flight Dynamics II	3	■		■	Offered in fall only
AERN 45250 Aviation Law	3	■		■	
AERN 45350 Avionics	3	■		■	
AERN 45791 Aviation Security and Policy Seminar	3	■		■	Fulfills writing-intensive requirement; see note on page 2



Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Eight: [14 Credit Hours]					
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	■		■	Offered in spring only
AERN 45291 Aerospace Senior Seminar	1	■		■	
TECH 47200 Systems Engineering	3	■		■	
Kent Core Requirement	3				See Kent Core Summary below

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Global / Domestic Diversity Course	Writing-Intensive	Experiential Learning	Minimum Major GPA	Minimum Overall GPA
121	39	36	Kent Core	AERN 45030, AERN 45791	Visit kent.edu/catalog/elr	2.250	2.000

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Composition (6-8 credit hours) <i>ENG 11002, 11011, 21011; HONR 10197, 10297</i>	Enrollment based on placement test	6-8
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major with MATH 12002	0
Humanities and Fine Arts (9 credit hours) <i>Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts</i>	May fulfill diversity requirement	9
Social Sciences (6 credit hours) <i>Must be selected from two curricular areas</i>	3 credits fulfilled in this major with ECON 22060 (second course cannot be ECON)	3
Basic Sciences (6-7 credit hours) <i>Must include one laboratory</i>	Fulfilled in this major with PHY 23101 and PHY 23102	0
Additional (6 credit hours)	3 credits fulfilled in this major with COMM 15000	3

Note: A minimum C grade must be earned in AERN 45030 or AERN 45791 in order to fulfill the writing-intensive requirement.

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.

Kent Core

Students must complete a minimum 36 credit hours of the Kent Core. Certain courses required in programs and in student's major field may also fulfill the Kent Core. Honors equivalents shall satisfy the Kent Core. None of the courses on the Kent Core list may be taken with a pass/fail grade. Visit www.kent.edu/catalog/kent-core for course list.

Diversity Course Requirement

Students must complete a two-course diversity requirement, consisting of one with a domestic (U.S.) focus and one with a global focus. One course must come from the Kent Core. The second course may be taken as a second Kent Core, within a major or minor, or as a general elective; or, with dean's approval, by completing one semester of study in another country. Visit www.kent.edu/catalog/diversity for course list.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Experiential Learning Requirement

To provide students with direct engagement in learning experiences that promote academic relevance, meaning and an understanding of real-world issues, students must complete this requirement at Kent State, either as a for-credit course or as a non-credit, non-course experience approved by the appropriate faculty member. Visit www.kent.edu/catalog/elr for course list.

Upper-Division Requirement

Students must complete a minimum 39 upper-division (numbered 30000 to 49999) credit hours of coursework. Programs in the College of Arts and Sciences require a minimum of 42 hours of upper-division coursework.