



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
<b>Semester One: [16 Credit Hours]</b>					
<b>MATH 11010 Algebra for Calculus</b>	<b>3</b>				<b>Fulfills Kent Core Mathematics and Critical Reasoning</b>
AERN 15000 Introduction to Aeronautics	3			■	
AERN 15745 Non-Pilot Elements of Flight Theory	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				
<b>Semester Two: [15 Credit Hours]</b>					
<b>MATH 11022 Trigonometry</b>	<b>3</b>				<b>Fulfills Kent Core Additional</b>
AERN 25350 Fundamentals of Air Traffic Control	2			■	Must be taken together
AERN 25351 Fundamentals of Air Traffic Control Laboratory	1			■	
COMM 15000 Introduction to Human Communication	3				Fulfills Kent Core Additional
TECH 20002 Materials and Processes	3			■	
Kent Core Requirement	3				See Kent Core Summary on page 2
<b>Semester Three: [15 Credit Hours]</b>					
<b>PHY 13001 General College Physics I</b>	<b>4</b>				<b>Fulfills Kent Core Basic Sciences; both courses must be taken together</b>
<b>PHY 13021 General College Physics Laboratory I</b>	<b>1</b>				
AERN 25250 Elements of Aviation Weather	3			■	
TECH 21021 Survey of Electricity and Electronics	4			■	
TECH 31000 Cultural Dynamics of Technology	3	■		■	Fulfills writing-intensive and domestic diversity requirements; see note on page 2
<b>Semester Four: [14 Credit Hours]</b>					
<b>PHY 13012 College Physics II</b>	<b>2</b>				<b>Fulfills Kent Core Basic Sciences; see note 1 on page 2</b>
AERN 35040 Aircraft Systems I	3	■		■	
AERN 35150 Aircraft Structures	3	■		■	Offered in spring only
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
<b>Semester Five: [15 Credit Hours]</b>					
AERN 35020 Aircraft Propulsion Systems	3	■		■	
AERN 35340 Airport Management	3	■		■	
AERN 45030 Aircraft Systems II	3	■		■	Fulfills writing-intensive requirement; see note 2 on page 2
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
<b>Semester Six: [15 Credit Hours]</b>					
AERN 35341 Air Transportation Systems	3	■		■	
AERN 45130 Physiology and Human Factors of Flight	3	■		■	
AERN 45135 Aviation Safety Theory	3	■		■	
AERN 45350 Avionics	3	■		■	
General Electives (lower or upper division)	3				
<b>Semester Seven: [15 Credit Hours]</b>					
AERN 45150 Applied Flight Dynamics I	3	■		■	
AERN 45250 Aviation Law	3	■		■	
AERN 45791 Aviation Security and Policy Seminar	3	■		■	Fulfills writing-intensive requirement; see note 2 on page 2
General Electives (lower or upper division)	6				



**Critical requirements are boldface in shaded areas.**

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
<b>Semester Eight: [16 Credit Hours]</b>					
<b>Note: All students must successfully complete the comprehensive exit exam requirement prior to graduation with the B.S. in Aeronautics.</b>					
AERN 45099 Aeronautical Studies Capstone <b>or</b> AERN 45092 Aeronautical Internship/Cooperative Education	3	■	C	■	Fulfills experiential learning requirement
AERN 45291 Aerospace Senior Seminar	1	■		■	
General Electives (lower or upper division)	12				Number of credits required depends on meeting minimum 121 credit hours and 39 upper-division credit hours

**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 or General Electives / TECH 3100	AERN 45030 or AERN 45791 or TECH 31000	AERN 45099	2.250	2.000

**Kent Core Summary**

Kent Core Categories	Important Notes	Remaining Credit Hours
<b>Composition (6-8 credit hours)</b> <i>ENG 11002, 11011, 21011; HONR 10197, 10297</i>	Enrollment based on placement test	6-8
<b>Mathematics and Critical Reasoning (3-5 credit hours)</b>	Fulfilled in this major with MATH 11010	0
<b>Humanities and Fine Arts (9 credit hours)</b> <i>Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts</i>	May fulfill diversity requirement	9
<b>Social Sciences (6 credit hours)</b> <i>Must be selected from two curricular areas</i>	May fulfill diversity requirement	6
<b>Basic Sciences (6-7 credit hours)</b> <i>Must include one laboratory</i>	Fulfilled in this major with PHY 13001, PHY 13012 and PHY 13021	0
<b>Additional (6 credit hours)</b>	Fulfilled in this major with COMM 15000 and MATH 11022	0

**Note 1:** Students who successfully completed PHY 13002 will have met the requirement for PHY 13012.

**Note 2:** A minimum C grade must be earned in AERN 45030, AERN 45791 or TECH 31000 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](http://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](http://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](http://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](http://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.