KENT STATE UNIVERSITY

Roadmap: Aeronautics-Flight Technology-Bachelor of Science

[AT-BS-AERN-FLGT]
College of Applied Engineering, Sustainability and Technology
Catalog Year: 2012-2013

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**			■	
MATH 11010 Algebra for Calculus	**3**				**Fulfills Kent Core Mathematics and Critical Reasoning**
AERN 25350 Fundamentals of Air Traffic Control	2			■	Must be taken together
AERN 25351 Fundamentals of Air Traffic Control Laboratory	1			■	
US 10097 Destination Kent State: First Year Experience	1				
Kent Core Requirements	3				See Kent Core Summary on page 2
Kent Core Requirements	3				
Semester Two: [17 Credit Hours]					
Requirement: Student must have a 2.500 cumulative GPA prior to commencing flight training courses.					
AERN 15740 Elements of Flight Theory	**5**			■	**Must be taken together; a 2.500 cumulative GPA is required to enroll in AERN 15741**
AERN 15741 Private Pilot Flight	**3**			■	
AERN 25250 Elements of Aviation Weather	**3**			■	
MATH 11022 Trigonometry	**3**				**Fulfills Kent Core Additional**
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Three: [15 Credit Hours]					
AERN 25743 Commercial Pilot Flight I	**2**			■	
PHY 13011 General College Physics I	**2**				**Fulfills Kent Core Basic Sciences; must be taken together; PHY 13011 see note 1 on page 2**
PHY 13021 General College Physics Laboratory I	**1**				
COMM 15000 Introduction to Human Communication	3				Fulfills Kent Core Additional
TECH 21021 Survey of Electricity and Electronics	**4**			■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Four: [14 Credit Hours]					
AERN 35340 Airport Management	**3**	■		■	
AERN 35644 Instrument Flight Theory	**3**	■		■	**Must be taken together**
AERN 35645 Instrument Pilot Flight	**2**	■		■	
PHY 13012 General College Physics II	**2**				**Fulfills Kent Core Basic Sciences; must be taken together; PHY 13012 see note 1 on page 2**
PHY 13022 General College Physics Laboratory II	**1**				
Kent Core Requirement	3				
Semester Five: [15 Credit Hours]					
AERN 35040 Aircraft Systems I	**3**	■		■	
AERN 35647 Commercial Pilot Flight II	**2**	■		■	**Must be taken together**
AERN 35746 Commercial Pilot Theory	**2**	■		■	
AERN 35747 Commercial Pilot Flight III	**2**	■		■	
Kent Core Requirements	3				See Kent Core Summary on page 2
Kent Core Requirements	3				
Semester Six: [16 Credit Hours]					
AERN 35020 Aircraft Propulsion Systems	**3**	■		■	
AERN 45030 Aircraft Systems II	**3**	■		■	**Fulfills writing-intensive requirement; see note 2 on page 2**
AERN 45150 Applied Flight Dynamics I	**3**	■		■	
AERN 45250 Aviation Law	**3**	■		■	
AERN 45653 Multi-Engine Pilot Flight	**1**	■		■	
AERN 45720 Crew Resource Management	**2**	■		■	**Offered in fall only**
AERN 45721 Crew Resource Management Laboratory	**1**	■		■	

KENT STATE UNIVERSITY

Critical requirements are boldface in shaded areas.

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Seven: [14 Credit Hours]					
AERN 45648 Theory of Flight Instruction	**3**	■		■	**Must be taken together**
AERN 45649 Flight Instructor-Airplanes	**2**	■		■	
AERN 45791 Aviation Security and Policy Seminar	**3**	■		■	**Fulfills writing-intensive requirement; see note 2 below**
AERN 45130 Physiology and Human Factors of Flight	3	■		■	
AERN 45350 Avionics	3	■		■	Offered in fall only
Semester Eight: [17 Credit Hours]					
All students must successfully complete the comprehensive exit exam requirement prior to graduation with the B.S. in Aeronautics.					
AERN 45291 Aerospace Senior Seminar	**1**	■		■	
AERN 45710 Turbine Engine Theory and Operation	**2**	■		■	**Must be taken together; offered in spring only**
AERN 45711 Turbine Engine Theory and Operation Laboratory	**1**	■		■	
AERN 45135 Aviation Safety Theory	3	■		■	
AERN 35150 Aircraft Structures *or* AERN 45730 Applied Transport Category Aircraft Systems *or* AERN 45740 Flight Management Systems	3	■		■	Offered in spring only
TECH 31000 Cultural Dynamics of Technology	3	■		■	Fulfills writing-intensive requirement; fulfills domestic diversity requirement; see note
General Elective	4	■		■	Number of credits required depends on meeting minimum 124 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
124	39	36	TECH 31000 DD /Kent Core or General electives	AERN 45030, AERN 45791, TECH 31000	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) *ENG 11002, 11011, 21011; HONR 10197, 10297*	Enrollment based on placement test	6-8
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major with MATH 11010	0
Humanities and Fine Arts (9 credit hours) *Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts*	May fulfill diversity requirement	9
Social Sciences (6 credit hours) *Must be selected from two curricular areas*	May fulfill diversity requirement	6
Basic Sciences (6-7 credit hours) *Must include one laboratory*	Fulfilled in this major with PHY 13011, PHY 13012, PHY 13021, PHY 13022	0
Additional (6 credit hours) *Must be selected from two Kent Core categories*	Fulfilled in this major with COMM 15000 and MATH 11022	0

Note 1: Students who successfully completed PHY 13001 and PHY 13002 will have met the requirement for PHY 13011 and PHY 13012.
Note 2: A minimum C grade must be earned in either AERN 45030, AERN 45791 or TECH 31000 in order to fulfill the writing-intensive requirement.

Comprehensive Exit Exam: 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.