

Roadmap: Aeronautics - Flight Technology - Bachelor of Science

[AT-BS-AERN-FLGT]

College of Applied Engineering, Sustainability and Technology Catalog Year: 2013-2014

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.

chilical (in boldrace and shaded areas) must be complete		Upper	Min.	Major	graddation.	
Course Subject and Title	Hours		Grade	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			•	Must be taken together	
US 10097 Destination Kent State: First Year Experience	1				Not required for transfer students with 25 credits	
Kent Core Requirements	3				See Kent Core Summary on page 2	
Kent Core Requirements	3				Soo Nork Sore Summary Str page 2	
Semester Two: [14 Credit Hours]						
Requirement: Student must have a 2.500 cumulative GPA	prior t	o com	mencir	ng fligh	nt training courses	
AERN 15740 Elements of Flight Theory	5				Must be taken together; a 2.500 cumulative GPA is	
AERN 15741 Private Pilot Flight	3			-	required to enroll in AERN 15741	
MATH 11022 Trigonometry	3				Fulfills Kent Core Additional	
Kent Core Requirement	3				See Kent Core Summary on page 2	
Semester Three: [16 Credit Hours]						
AERN 25743 Commercial Pilot Flight I	2					
AERN 25250 Elements of Aviation Weather	3					
PHY 13001 General College Physics I	4				Fulfills Kent Core Basic Sciences; must be taken	
PHY 13021 General College Physics I Laboratory	1				together	
COMM 15000 Introduction to Human Communication	3				Fulfills Kent Core Additional	
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	•		-	muot so tanon togotno.	
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 Requirement	3				See Kent Core Summary on page 2	
Kent Core Requirement	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 45130 Physiology and Human Factors of Flight	3	•		-		
AERN 45150 Applied Flight Dynamics I	3	•		-		
AERN 45653 Multi-Engine Pilot Flight	1	•		-		
General Elective (lower or upper division)	3					





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Critical requirements are boldface in shaded areas.

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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				Must be taken together	
AERN 45720 Crew Resource Management	2				Offered in fall only	
AERN 45721 Crew Resource Management Laboratory	1					
AERN 45791 Aviation Security and Policy Seminar	3				Fulfills writing-intensive requirement; see note 2 below	
AERN 45350 Avionics	3				Offered in fall only	
Semester Eight: [16 Credit Hours]						
AERN 45250 Aviation Law	3					
AERN 45291 Aerospace Senior Seminar	1					
AERN 45710 Turbine Engine Theory and Operation	2					
AERN 45711 Turbine Engine Theory and Operation Laboratory	1	•		•	Must be taken together; offered in spring only	
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	
General Elective (lower or upper division)	3				Number of credits required depends on meeting minimum 124 credit hours and 39 upper-division credit hours	

Graduation Requirements Summary

Minimum	Minimum Upper-	Minimum Kent	Global / Domestic	Writing-Intensive	Experiential	Minimum	
Total Hours	Division Hours	Core Hours	Diversity Course	vviillig-intensive	Learning	Major GPA	Overall GPA
121 39	36	Kent Core /	AERN 45030,	Visit	2.250	2.000	
	30	TECH 31000	AERN 45791	kent.edu/catalog/elr			

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)	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 13012.

Note 2: A minimum C grade must be earned in either, AERN 45030 or AERN 45791 to fulfill the writing-intensive requirement.

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.





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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.