

# Roadmap: Aeronautics - Aeronautical Systems Engineering Technology - Bachelor of Science

[CT-BS-AERN-AESE] College of Technology Catalog Year: 2009-2010

Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes		
Semester One: [16 Credit Hours]						
MATH 11010 Algebra for Calculus	3		С	Fulfills LER Mathematics and Critical Reasoning		
TECH 15000 Introduction to Aeronautics	3					
ENG 11011 College Writing I	3			Fulfills LER Composition		
GEOG 17063 World Geography	3			Fulfills LER Social Sciences and global diversity		
TECH 10001 Information Technology	3			course requirement		
US 10097 Destination Kent State: FYE	1			Not required for transfer students with 25 credits		
Semester Two: [17 Credit Hours]						
MATH 11022 Trigonometry	3		С			
TECH 15740 Elements of Flight Theory	5					
TECH 13580 Engineering Graphics I	3					
TECH 20002 Materials and Processes	3					
ENG 20002 Introduction to Technical Writing	3					
Semester Three: [17 Credit Hours]						
MATH 12002 Analytic Geometry and Calculus I	5			Fulfills LER Mathematics and Critical Reasoning		
PHY 13011 College Physics I	2			Fulfills LER Basic Sciences;		
PHY 13021 General College Physics Laboratory I	1			both courses must be taken together		
ECON 22060 Principles of Microeconomics	3			Fulfills LER Social Sciences		
ENG 21011 College Writing II	3			Fulfills LER Composition		
TECH 25250 Elements of Aviation Weather	3					
Semester Four: [18 Credit Hours]		ı				
MATH 12003 Analytic Geometry and Calculus II	5					
PHY 13012 College Physics II	2			Fulfills LER Basic Sciences;		
PHY 13022 General College Physics Laboratory II	1			courses must be taken together		
TECH 21021 Survey of Electricity and Electronics	4					
ECON 22061 Principles of Macroeconomics	3			Fulfills LER Additional		
TECH 33033 Hydraulics/Pneumatics	3					
Semester Five: [15 Credit Hours]						
MATH 22005 Analytic Geometry and Calculus III	3					
TECH 35040 Aircrafts Systems I	3					
TECH 35150 Aircrafts Structures	3					
TECH 35340 Airport Management	3	•				
TECH 35341 Air Transportation Systems	3					
Semester Six: [15 Credit Hours]	2					
TECH 45150 Applied Flight Dynamics I	3	<b>-</b>				
TECH 45150 Applied Flight Dynamics I	3			Fulfills LER Additional		
COMM 15000 Introduction to Human Communication		1	1	I FUIIIIS LEK AUUIUOIIAI		
COMM 15000 Introduction to Human Communication TECH 35020 Aircraft Propulsion Systems	3					



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Semester Seven: [16 Credit Hours]				
TECH 45030 Aircraft Systems II			С	Fulfills writing-intensive course requirement; offered in fall only
TECH 45151 Applied Flight Dynamics II	3			Offered in fall only
TECH 45250 Aviation Law and Safety	3			
TECH 45350 Avionics	3			
TECH 45291 Aerospace Senior Seminar	1			Prerequisite of senior standing
LER Humanities or Fine Arts				Should fulfill domestic diversity requirement; visit www.kent.edu/catalog and search "LER" and "diversity" for course lists
Semester Eight: [15 Credit Hours]				
TECH 45121 Advanced Aerospace Propulsion	3	•		Offered in spring only; prerequisite TECH 35020
TECH 45700 Aircraft Design	3			Offered in spring only
TECH 45791 Aviation Security and Policy Seminar	3		С	Fulfills writing-intensive course requirement
LER Fine Arts	3			Should fulfill domestic diversity requirement;
LER Humanities	3			visit <u>www.kent.edu/catalog</u> and search "LER" and "diversity" for course lists

**Graduation Requirements Summary** 

	Total Hours	Upper-Division	Liberal Education	Diversity Course	Writing-Intensive	Minimum	
		Hours	Requirements Hours	Global / Domestic		Major GPA	Overall GPA
	129	39	26	GEOG 17063 /	TECH 45030 or	2.25	2.00
	129	39	36	LER Humanities	TECH 45791	2.25	2.00

## Liberal Education Requirements (LER)

Students must complete a minimum 36 credit hours of Liberal Education Requirements. Colleges or degree programs may specify certain courses to fulfill the requirements. Courses in the students' major field will not count toward the completion of any LER. Honors equivalents shall satisfy the LER. None of the courses on the LER list may be taken with a pass/fail grade.

#### **Diversity Course Requirement**

Students must complete a two-course diversity requirement, consisting of one with a domestic focus and one with a global focus. One course must be come from the LER and cannot be in the student's major. The second course may be taken as a second LER; or within a major or minor; or as a general elective; or, with dean's approval, by completing one semester of study in another country.

### Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.00) grade.

### **Upper-Division Requirement**

In general, baccalaureate programs require the successful completion of at least 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.