KENT STATE UNIVERSITY

DRAFT Roadmap: Aerospace Engineering - Bachelor of Science
AT-BS-AERS
College of Applied Engineering, Sustainability and Technology
Catalog Year: 2015-2016

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

Critical	Course Subject and Title	Credit Hours	Min. Grade	Major GPA	Attribute	Notes
Semester One [15 Credits]						
!	**AERN 15300 Introduction to Engineering Analysis Using Matlab**	**3**		■		
!	**CHEM 10050 Fundamentals of Chemistry**	**3**			**KBS**	
!	**MATH 12002 Analytic Geometry and Calculus I**	**5**			**KMC**	
	US 10097 Destination Kent State: First Year Experience [1]	1				
	Kent Core Requirement	3				
Semester Two [16 Credits]						
!	**AERN 15500 Introduction to Aerospace Engineering**	**3**	**C**	■		
!	**MATH 12003 Analytic Geometry and Calculus II**	**5**				
!	**PHY 23101 General University Physics I**	**5**			**KBS**	
!	**TECH 13580 Engineering Graphics I**	**3**		■		
Semester Three [17 Credits]						
!	**AERN 25200 Statics**	**2**		■		
!	**MATH 21001 Linear Algebra With Applications**	**3**				
!	**MATH 22005 Analytic Geometry and Calculus III**	**4**				
!	**PHY 23102 General University Physics II**	**5**			**KBS**	
	Kent Core Requirement	3				
Semester Four [15 Credits]						
!	**AERN 25400 Dynamics**	**3**		■		
!	**AERN 25500 Aerodynamics for Engineers**	**3**	**C**	■		
!	**MATH 32044 Introduction to Ordinary Differential Equations**	**3**				
!	**TECH 33111 Strengths of Materials**	**3**		■		
	ECON 22060 Principles of Microeconomics	3			KSS	
Semester Five [16 Credits]						
!	**AERN 35150 Aircraft Structures**	**3**		■		
!	**AERN 35200 Thermal-Fluid Engineering**	**3**		■		
!	**AERN 35201 Thermal-Fluid Engineering Laboratory**	**1**		■		
!	**AERN 35300 Aerospace Vehicle Performance**	**3**		■		
!	**AERN 35400 System Dynamics and Control**	**3**		■		
	Kent Core Requirement	3				
Semester Six [16 Credits]						
!	**AERN 35500 Signals and Circuits**	**3**		■		
!	**AERN 35501 Signals and Circuits Laboratory**	**1**		■		
!	**AERN 35600 High-Speed Aerodynamics**	**3**		■		
!	**AERN 45121 Advanced Aerospace Propulsion**	**3**		■		
!	**TECH 36620 Project Management in Engineering and Technology**	**3**		■		
	Kent Core Requirement	3				
Semester Seven [17 Credits]						
!	**AERN 45600 Aircraft Stability and Control**	**3**		■		
!	**AERN 45601 Aircraft Stability and Control Laboratory**	**1**		■		
!	**AERN 45700 Aircraft Design**	**4**		■	**ELR**	
!	**MATH 42045 Introduction to Partial Differential Equations**	**3**				
	AERN Elective	3				
	Kent Core Requirement	3				
Semester Eight [16 Credits]						
!	**AERN 45291 Aerospace Senior Seminar**	**1**		■		
!	**AERN 45850 Aircraft Design II**	**3**		■		
!	**AERN 45900 Aeroelasticity**	**3**		■		
	AERN Elective	3				
	Kent Core Requirement	3				
	Kent Core Requirement	3				

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours 30000 – 40000 level course	Minimum Kent Core Hours	Minimum	
			Major GPA	Overall GPA
128	39	36	2.75	2.500

1. US 10097 is not required of transfer students with 25 credits (excluding College Credit Plus and dual-enrollment credit) or students age 21+ at time of admission.

University Requirements: Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog: Kent Core – www.kent.edu/catalog/kent-core; Diversity Course Requirement – www.kent.edu/catalog/diversity; Writing-Intensive Course Requirement – www.kent.edu/catalog/wic; Experiential Learning Requirement – www.kent.edu/catalog/elr.

Attribute Legend: **DD** Diversity–Domestic; **DG** Diversity–Global; **ELR** Experiential Learning; **KAD** Kent Core Additional; **KBS** Kent Core Basic Sciences; **KCM** Kent Core Composition; **KFA** Kent Core Fine Arts: **KHU** Kent Core Humanities; **KMC** Kent Core Mathematics and Critical Reasoning; **KSS** Kent Core Social Sciences; **WIC** Writing Intensive