KENT STATE UNIVERSITY

Roadmap: Engineering Technology - Mechanical/Systems - Bachelor of Science
RE-BS-ENGT-MSY
Regional College
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 [17 Credits]						
Note: Students who have earned an associate degree will have 34 credits of technical coursework articulate to the bachelor's degree program and will not have to take the electives for a minor or individualized specialization.						
	CS 10061 Introduction to Computer Programming ***or*** DSCI 15310 Computational Thinking and Programming ***or*** EERT 22003 Technical Computing	3		■		
	MATH 11010 Algebra for Calculus	3			KMC	
	US 10097 Destination Kent State: First Year Experience [1]	1				
	Kent Core Requirement	3				
	Applied Courses from Associate Degree, Minor or Individualized Specialization [2]	7				
Semester Two [18 Credits]						
	MATH 11012 Intuitive Calculus	3			KMC	
	MATH 11022 Trigonometry	3			KMC	
	Kent Core Requirement	3				
	Applied Courses from Associate Degree, Minor or Individualized Specialization [2]	9				
Semester Three [15-17 Credits]						
	ENG 20002 Introduction to Technical Writing ***or*** ITAP 26638 Business Communications	3		■		
	PHY 12201 Technical Physics I (3) ***or*** PHY 13001 General College Physics I (4) ***and*** PHY 13021 General College Physics Laboratory I (1)	3 - 5			KBS	
	Applied Courses from Associate Degree, Minor or Individualized Specialization [2]	9				
Semester Four [18-19 Credits]						
	EERT 21010 Engineering and Professional Ethics ***or*** TECH 31010 Engineering and Professional Ethics	3		■		
	PHY 12202 Technical Physics II (4) ***or*** PHY 13012 College Physics II (2) ***and*** PHY 13022 General College Physics Laboratory II (1)	3 - 4			KBS	
	Kent Core Requirement	3				
	Applied Courses from Associate Degree, Minor or Individualized Specialization [2]	9				
Semester Five [13 Credits]						
!	**TECH 31020 Automated Manufacturing**	**3**		■		
	ECON 22060 Principles of Microeconomics	3			KSS	
	ITAP 26636 Project Management for Administrative Professionals	1				
	Mechanical/Systems Electives [3]	3		■		
	Kent Core Requirement	3				
Semester Six [12 Credits]						
!	**TECH 36620 Project Management in Engineering and Technology**	**3**		■		
!	**TECH 33363 Metallurgy and Materials Science**	**3**		■		
	Mechanical/Systems Electives [3]	6		■		
Semester Seven [12 Credits]						
!	**TECH 32002 Materials and Processes II**	**3**		■		
	Mechanical/Systems Electives [3]	6		■		
	Kent Core Requirement	3				
Semester Eight [14-15 Credits]						
!	**TAS 47900 Technical and Applied Studies Capstone**	**3**	**C**	■	**ELR**	
!	**TECH 31000 Cultural Dynamics of Technology or TECH 33092 Cooperative Education - Professional Development**	**2-3**	**C** [4]	■	**DD/WIC ELR/WIC**	
	TECH 43080 Industrial and Environmental Safety	3		■		
	Kent Core Requirement	3				
	Mechanical/Systems Electives [3]	3		■		
	General Elective [5]	0 - 1				

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours 30000 – 40000 level course	Minimum Kent Core Hours	Minimum	
			Major GPA	Overall GPA
120	39	36	2.000	2.000

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.
2. Applied Courses from Associate Degree, Minor or Individualized Specialization (34 credit hours)

Choose from the following:	
CADT 22003 Solid Modeling (2)	EERT 22014 Microprocessors and Robotics (3)
IERT 22006 Economic Decision Analysis (3)	Any MERT course
Others by program director approval	

3. Mechanical/Systems Electives (9 credits from group 1 and 9 credits from group 2)

Group 1 (9 credits) choose from the following:	**Group 2 (9 credits) choose from the following:**
GAE 32000 Fuel Cell Technology (3)	EERT 32005 Instrumentation (3)
MERT 42000 Thermodynamics for Engineering Technology (3)	GAE 42003 Lean Manufacturing, Six Sigma and Operations Technology (3)
MERT 43001 Dynamics for Engineering Technology (3)	TECH 32101 Polymers I (3)
TECH 31032 Power Technology (3)	TECH 34002 Advanced CAD II (3)
TECH 31067 Machining Technology I (3)	
TECH 33016 PC/Network Engineering and Troubleshooting (3)	
TECH 33033 Hydraulics/Pneumatics (3)	
TECH 33700 Quality Techniques (3)	
TECH 34002 Advanced CAD II (3)	
TECH 43220 Electrical Machinery (3)	
TECH 43550 Computer-Aided Manufacturing (3)	

4. To fulfill the writing-intensive requirement, either TECH 31000 or TECH 33056 must be earned with minimum C (2.000) grade.
5. Credits required depend on meeting minimum 120 credit hours and minimum 39 upper-division credit hours.

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