



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: [15 Credit Hours]					
MATH 12002 Analytic Geometry and Calculus I	5				Fulfills Kent Core Mathematics and Critical Reasoning
TECH 10001 Information Technology	3			■	
TECH 13580 Engineering Graphics I	3			■	
US 10097 Destination Kent State: First Year Experience	1				Not required for transfer students with 25 credits
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Two: [15 Credit Hours]					
MATH 12003 Analytic Geometry and Calculus II	5				
TECH 21021 Survey of Electricity and Electronics	4			■	
TECH 23581 Computer-Aided Engineering Graphics	3			■	
COMM 15000 Introduction to Human Communication	3				Fulfills Kent Core Additional
Semester Three: [14 Credit Hours]					
PHY 23101 General University Physics I	5				Fulfills Kent Core Basic Sciences
TECH 20002 Materials and Processes	3			■	
ECON 22060 Principles of Microeconomics	3				Fulfills Kent Core Social Sciences
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Four: [17 Credit Hours]					
PHY 23102 General University Physics II	5				Fulfills Kent Core Basic Sciences
TECH 33111 Strength of Materials	3	■		■	
TECH 33033 Hydraulics/Pneumatics	3	■		■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
Semester Five: [15 Credit Hours]					
TECH 33031 Programmable Logic Controllers	3	■		■	
TECH 31000 Cultural Dynamics of Technology	3	■		■	Fulfills writing-intensive and domestic diversity requirement; see note on page 2
TECH 33092 Cooperative Education-Professional Development	3	■		■	Fulfills writing-intensive and experiential learning requirement; see note on page 2
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				
Semester Six: [15 Credit Hours]					
TECH 33032 Programmable Logic Controllers II	3	■		■	
TECH 33040 Motors and Controllers	3	■		■	
TECH 34002 Advanced CAD II	3	■		■	
TECH 31010 Engineering and Professional Ethics	3	■		■	
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Seven: [15 Credit Hours]					
TECH 33222 Digital Design for Computer Engineering	3	■		■	
TECH 43030 Mechatronics I	3	■		■	
TECH 46330 Visual Basic Programming in Engineering Technology	3	■		■	
TECH 33700 Quality Techniques	3	■		■	
TECH 43060 Management of Technology Innovation	3	■		■	



Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Eight: [15 Credit Hours]					
TECH 43031 Mechatronics II	3	■		■	
TECH 43080 Industrial and Environmental Safety	3	■		■	
TECH 43222 Computer Hardware Engineering and Architecture	3	■		■	
TECH 43580 Computer-Aided Machine Design	3	■		■	
General Elective (lower or upper division)	3				Number of credits required depends on meeting minimum 121 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
121	39	36	Kent Core / TECH 31000	TECH 31000 or TECH 33092	TECH 33092	2.250	2.000

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Composition (6-8 credit hours) <i>ENG 11002, 11011, 21011; HONR 10197, 10297</i>	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) <i>Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts</i>	May fulfill global diversity requirement	9
Social Sciences (6 credit hours) <i>Must be selected from two curricular areas</i>	3 credits fulfilled in this major with ECON 22060 (second course cannot be ECON)	3
Basic Sciences (6-7 credit hours) <i>Must include one laboratory</i>	Fulfilled in this major with PHY 23101, 23102	0
Additional (6 credit hours)	3 credits fulfilled in this major with COMM 15000	3

Note: A minimum C grade must be earned in either TECH 31000 or TECH 33092 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.

Writing-Intensive Course Requirement

Students must complete a one-course writing-intensive requirement in their major and earn minimum C (2.000) 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.