



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: [16 Credit Hours]					
MATH 11010 Algebra for Calculus	3				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
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Two: [16 Credit Hours]					
MATH 11022 Trigonometry	3				Fulfills Kent Core Mathematics and Critical Reasoning
TECH 21021 Survey of Electricity and Electronics	4			■	
COMM 15000 Introduction to Human Communication	3				Fulfills Kent Core Additional
Kent Core Requirement	3				See Kent Core Summary on page 2
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Three: [15 Credit Hours]					
TECH 20002 Materials and Processes	3			■	
TECH 23581 Computer-Aided Engineering Graphics	3			■	
MATH 12002 Analytical Geometry and Calculus I	5				Fulfills Kent Core Mathematics and Critical Reasoning
PHY 13001 General College Physics I	4				Fulfills Kent Core Basic Sciences
Semester Four: [17 Credit Hours]					
TECH 31065 Cast Metals	3	■		■	
ACCT 23020 Introduction to Financial Accounting	3				
ENG 20002 Introduction to Technical Writing	3			■	
PHY 13002 General College Physics II	4				Fulfills Kent Core Basic Sciences
Kent Core Basic Sciences Laboratory	1				See Kent Core Summary on page 2
Kent Core Requirement	3				See Kent Core Summary on page 2
Semester Five: [15 Credit Hours]					
TECH 33111 Strength of Materials	3	■		■	
CHEM 10050 Fundamentals of Chemistry	3				Fulfills Kent Core Basic Sciences
CS 10061 Introduction to Computer Programming or DSCI 15310 Computational Thinking and Programming	3			■	
ECON 22060 Principles of Microeconomics	3				Fulfills Kent Core Social Sciences
MIS 24163 Principles of Management	3			■	
Semester Six: [15 Credit Hours]					
TECH 33031 Programmable Logic Controllers	3	■		■	
TECH 33033 Hydraulics/Pneumatics	3	■		■	
TECH 33363 Metallurgy and Material Science	3	■		■	
TECH 34002 Advanced CAD II	3	■		■	
Kent Core Requirement	3				See Kent Core Summary on page 2



Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Div.	Min. Grade	Major GPA	Important Notes
Semester Seven: [17 Credit Hours]					
TECH 31000 Cultural Dynamics of Technology (3) and/or TECH 31016 Manufacturing Technology (3) and/or TECH 33056 Cooperative Education (1-6) and/or TECH 33220 Electronic Devices (4) and/or TECH 33222 Digital Designs and Applications (3) and/or TECH 33223 Electronic Communication (3)	5	■		■	TECH 31000 fulfills writing-intensive and domestic diversity requirement; a minimum C grade is required to meet the writing-intensive requirement
TECH 43080 Industrial and Environmental Safety	3	■		■	
TECH 43550 Computer-Aided Manufacturing	3	■		■	
MIS 24056 Fundamentals of Business Statistics	3			■	
MIS 34180 Human Resource Management	3	■		■	
Semester Eight: [14 Credit Hours]					
TECH 43580 Computer-Aided Machine Design	3	■		■	
TECH 43700 Computer Integrated Manufacturing	3	■		■	
TECH 43800 Applied Engineering Technology Seminar	2	■		■	
TECH 46330 Visual Basic Programming in Engineering Technology	3	■		■	
MIS 34060 Operations Management	3	■		■	

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
125	39	36	Kent Core or general electives / TECH 31000	TECH 31000	Visit www.kent.edu/catalog/elr	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 diversity requirement	9
Social Sciences (6 credit hours) <i>Must be selected from two curricular areas</i>	3 credit hours fulfilled in this major with ECON 22060; second course cannot be from ECON	6
Basic Sciences (6-7 credit hours) <i>Must include one laboratory</i>	6 credit hours fulfilled in this major with PHY 13001 and 13002; one laboratory course needed	1
Additional (6 credit hours) <i>Must be selected from two Kent Core categories</i>	Fulfilled in this major with COMM 15000 and CHEM 10050 and MATH 11022 or MATH 11012	0

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 (2.00) grade. Visit www.kent.edu/catalog/wic for course list.

Experiential Learning Requirement (ELR)

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.