KENT STATE
U N I V E R S I T Y

Roadmap: Industrial Technology – Computer and Electronics – Bachelor of Science
[CT-BS-INDT-CMEL]
College of Technology
Catalog Year: 2010-2010

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 Division	Min. Grade	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			
COMM 15000 Introduction to Human Communication	3			Fulfills Kent Core Additional
TECH 13580 Engineering Graphics I	3			
US 10097 Destination Kent State: FYE	1			Not required for transfer students with 25 credits
Kent Core Requirement	3			See Kent Core Summary on page 2
Semester Two: [17 Credit Hours]				
CHEM 10060 General Chemistry I	4			Fulfills Kent Core Basic Sciences
CHEM 10062 General Chemistry I Laboratory	1			
CS 10061 Introduction to Computer Programming	3			
MATH 11022 Trigonometry	2			
TECH 20004 Fundamentals of Electronic Circuits	4			
Kent Core Requirement	3			See Kent Core Summary on page 2
Semester Three: [16 Credit Hours]				
MATH 12002 Analytical Geometry and Calculus I	5			Fulfills Kent Core Mathematics
PHY 23101 General University Physics I	5			Fulfills Kent Core Basic Sciences
Kent Core Requirement	6			See Kent Core Summary on page 2
Semester Four: [15 Credit Hours]				
MATH 12003 Analytical Geometry and Calculus II	5			
PHY 23102 General University Physics II	5			Fulfills Kent Core Basic Sciences
TECH 23200 Electronic Circuits Fabrication Lab	1			
TECH 33220 Electronic Devices	4	■		
Semester Five: [15 Credit Hours]				
MATH 21001 Linear Algebra with Applications	3			
TECH 33222 Digital Design and Applications	3	■		
ECON 22060 Principles of Microeconomics	3			Fulfills Kent Core Social Sciences
ENG 20002 Introduction to Technical Writing	3			
Kent Core Requirement	3			See Kent Core Summary on page 2
Semester Six: [15 Credit Hours]				
MIS 24056 Principles of Business Statistics	3			
MIS 24163 Principles of Management	3			
TECH 46330 Visual Basic Programming in Engineering Technology	3	■		
ECON 22061 Principles of Macroeconomics	3			Fulfills Kent Core Additional
Kent Core Requirement	3			See Kent Core Summary on page 2

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Critical requirements are boldface in shaded areas

Course Subject and Title	Credit Hours	Upper Division	Min. Grade	Important Notes
Semester Seven: [13 Credit Hours]				
TECH 33010 Computer Hardware	**3**	■		
TECH 43026 Microprocessor Systems	**4**	■		
MIS 34060 Operations Management	3	■		
TECH 31000 Cultural Dynamics of Technology	3	■		Fulfills writing-intensive course requirement; see note below
Semester Eight: [16 Credit Hours]				
MIS 44150 Total Quality Management	**3**	■		**Fulfills writing-intensive course requirement; see note below**
TECH 33016 PC/Network Engineering and Troubleshooting	**3**	■		
TECH 33223 Electronic Communication	**3**	■		
TECH 43221 Digital Control Systems and Instrumentation	**4**	■		
TECH 46311 Technology of Networking	**3**	■		

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours	Minimum Kent Core Hours	Diversity Course Global / Domestic	Writing-Intensive	Minimum Major GPA	Overall GPA
123	39	36	Kent Core	TECH 31000 or MIS 44150	2.25	2.0

Kent Core Summary

Kent Core Categories	Important Notes	Remaining Credit Hours
Additional (6 credit hours) *Must be selected from two Kent Core categories*	Fulfilled in this major with ECON 22061, COMM 15000	0
Basic Sciences (6-7 credit hours) *Must include one laboratory*	Fulfilled in this major with CHEM 10060, 10062, PHY 23101 and 23102	0
Composition (6-8 credit hours) *ENG 11002, 11011, 21011; HONR 10197, 10297*	Enrollment based on placement test	6-8
Humanities and Fine Arts (9 credit hours) *Minimum one course from humanities in Arts and Sciences category and minimum one course from fine arts category*	May fulfill diversity requirement	9
Mathematics and Critical Reasoning (3-5 credit hours)	Fulfilled in this major with MATH 11010.	0
Social Sciences (6 credit hours) *Must be selected from two curricular areas*	3 credits are fulfilled in this major with ECON 22060; may fulfill diversity requirement	3

Note: A minimum C grade must be earned in either TECH 31000 or MIS 44150 in order 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 (2.00) grade.
Visit www.kent.edu/catalog/wic 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.
Visit http://www.kent.edu/catalog/2010/CourseInformation/Foreignlang.cfm for course list