

Roadmap: Applied Engineering – Computer Engineering Technology -**Bachelor of Science**

[AT-BS-AENG-CET]

College of Applied Engineering, Sustainability and Technology

Catalog Year: 2013-2014

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.

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|---|-----------------|---------------|---------------|--------------|---|
| 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: 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 Additional |
| 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 |
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| Semester Three: [14 Credit Hours] | | | | | |
| MATH 11012 Intuitive Calculus | 3 | | | | Fulfills Kent Core Additional |
| PHY 13001 General College Physics I | 4 | | | | Fulfills Kent Core Basic Sciences |
| PHY 13021 General College Physics Laboratory I | 1 | | | | Fulfills Kent Core Basic Sciences |
| TECH 23010 Computer Hardware I | 3 | | | | |
| TECH 26301 Networking Hardware I | 3 | | | | |
| Semester Four: [17 Credit Hours] | | | | | |
| TECH 33020 Computer Hardware II | 3 | | | | |
| TECH 36302 Networking Hardware II | 3 | | | | |
| ENG 20002 Introduction to Technical Writing | 3 | | | | |
| PHY 13002 General College Physics II | 4 | | | | Fulfills Kent Core Basic Sciences |
| PHY 13022 General College Physics Laboratory II | 1 | | | | Fulfills Kent Core Basic Sciences |
| Kent Core Requirement | 3 | | | | See Kent Core Summary on page 2 |
| Semester Five: [15 Credit Hours] | | | | | |
| COMT 36320 Computer Forensics | 3 | | | | |
| MIS 24163 Principles of Management | 3 | | | | |
| TECH 26310 Web Design and Development | 3 | | | | |
| TECH 33030 Computer Peripherals and Special Use Hardware | 3 | • | | • | |
| Kent Core Requirement | 3 | | | | See Kent Core Summary on page 2 |
| Semester Six: [15 Credit Hours] | | | | | |
| COMT 36330 Local Area Network Security Fundamentals | 3 | | | | |
| TECH 31000 Cultural Dynamics of Technology | 3 | | С | | Fulfills writing-intensive and domestic diversity requirement |
| TECH 33223 Electronic Communication | 3 | • | | • | |
| TECH 36620 Project Management in Engineering and Technology | 3 | | | | |
| 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 Div. | Min. Grade | Major GPA | Important Notes |
|--|-----------------|---------------|---------------|--------------|---|
| Semester Seven: [15 Credit Hours] | | | | | |
| TECH 33222 Digital Design for Computer Engineering | 3 | - | | • | |
| MIS 24056 Fundamentals of Business Statistics | 3 | | | | |
| TECH 43016 Advanced PC-Network Engineering and Troubleshooting | 3 | | | | |
| TECH 43060 Management of Technology Innovation | 3 | | | • | |
| TECH 46330 Visual Basic Programming in Engineering Technology | 3 | - | | • | |
| Semester Eight: [13 Credit Hours] | | | | | |
| TECH 43222 Computer Hardware Engineering and Architecture | 3 | | | | |
| TECH 46312 Wireless Networks and Telecommunications Systems | 3 | • | | • | |
| TECH 46350 Network Management and Design | 3 | | | • | |
| General Electives (lower or upper division) | 4 | | | | Number of credits required depends on meeting minimum 121 credit hours and 39 upper-division credit hours |

Graduation Requirements Summary

| - 4 | | | | | | | | |
|-----|-------------|----------------|--------------|---------------------------|------------|-----------------------------------|-----------|-------------|
| | Minimum | Minimum Upper- | Minimum Kent | Global / Domestic | Writing- | Experiential Minimu | | num |
| | Total Hours | Division Hours | Core Hours | Diversity Course | Intensive | Learning | Major GPA | Overall GPA |
| | 121 | 39 | 36 | Kent Core / TECH 31000 | TECH 31000 | Visit www.kent.edu/catalog/elr | 2.250 | 2.000 |

Kent Core Summary

| None dota dammary | | | | | |
|--|---|---------------------------|--|--|--|
| Kent Core Categories | Important Notes | Remaining Credit Hours | | | |
| Composition (6-8 credit hours) ENG 11002, 11011, 21011; HONR 10197, 10297 | 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) Minimum one course from humanities in Arts and Sciences and minimum one course from fine arts | May fulfill diversity requirement | 9 | | | |
| Social Sciences (6 credit hours) Must be selected from two curricular areas | May fulfill diversity requirement | 6 | | | |
| Basic Sciences (6-7 credit hours) Must include one laboratory | Fulfilled in this major with PHY 13001, 13002, 13021, 13022 | 0 | | | |
| Additional (6 credit hours) | Fulfilled in this major with COMM 15000, MATH 11012, MATH 11022 | 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 (2.000) 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.