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 | Upper Div. | Min. Grade | Major GPA | Type | Term Taken |
|---|---|---|---|---|---|---|---|
| **Semester One [15 Credits]** | | | | | | | |
| ! | **MATH 12002 Analytic Geometry and Calculus I** | **5** | | | | **KMC** | |
| ! | **TECH 10001 Information Technology** | **3** | | | ■ | | |
| ! | **TECH 13580 Engineering Graphics I** | **3** | | | ■ | | |
| | US 10097 Destination Kent State: First Year Experience [1] | 1 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| **Semester Two [15 Credits]** | | | | | | | |
| ! | **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 | | | | KAD | |
| **Semester Three [14 Credits]** | | | | | | | |
| ! | **PHY 23101 General University Physics I** | **5** | | | | **KBS** | |
| ! | **TECH 20002 Materials and Processes** | **3** | | | ■ | | |
| | ECON 22060 Principles of Microeconomics | 3 | | | | KSS | |
| | Kent Core Requirement | 3 | | | | | |
| **Semester Four [17 Credits]** | | | | | | | |
| ! | **PHY 23102 General University Physics II** | **5** | | | | **KBS** | |
| ! | **TECH 33111 Strength of Materials** | **3** | ■ | | ■ | | |
| | TECH 33033 Hydraulics/Pneumatics | 3 | ■ | | ■ | | |
| | Kent Core Requirement | 3 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| **Semester Five [15 Credits]** | | | | | | | |
| ! | **TECH 33031 Programmable Logic Controllers** | **3** | ■ | | ■ | | |
| | TECH 31000 Cultural Dynamics of Technology [2] | 3 | ■ | | ■ | DD/WIC | |
| | TECH 33092 Cooperative Education - Professional Development [2] | 3 | ■ | | ■ | ELR/WIC | |
| | Kent Core Requirement | 3 | | | | | |
| | Kent Core Requirement | 3 | | | | | |
| **Semester Six [15 Credits]** | | | | | | | |
| ! | **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 | | | | | |
| **Semester Seven [15 Credits]** | | | | | | | |
| ! | **TECH 33222 Digital Design for Computer Engineering** | **3** | ■ | | ■ | | |
| ! | **TECH 43030 Mechatronics** | **3** | ■ | | ■ | | |
| ! | **TECH 46330 Visual Basic Programming in Engineering Technology** | **3** | ■ | | ■ | | |
| | TECH 33700 Quality Techniques | 3 | ■ | | ■ | | |
| | TECH 43060 Management of Technology Innovation | 3 | ■ | | ■ | | |
| **Semester Eight [14 Credits]** | | | | | | | |
| ! | **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 | 2 | | | | | |

## Graduation Requirements Summary

| Minimum Total Hours | Minimum Upper-Division Hours | Minimum Kent Core Hours | Minimum | |
|---|---|---|---|---|
| | | | Major GPA | Overall GPA |
| 120 | 39 | 36 | 2.250 | 2.000 |

1. US 10097 is not required of transfer students with 25 credits or students age 21+ at time of admission.
2. A minimum C grade must be earned in either TECH 31000 or TECH 33092 to fulfill the writing-intensive requirement.

## University Requirements Summary

| Type | Categories | Course(s) Satisfying Category | Remaining Requirements |
|---|---|---|---|
| KCM | **Kent Core I. Composition** <br> Enrollment based on placement test | visit www.kent.edu/catalog/kent-core | 6 |
| KMC | **Kent Core II. Mathematics and Critical Reasoning** <br> Enrollment based on placement test | MATH 12002 | fulfilled |
| KHU | **Kent Core III. Humanities** <br> Minimum one course from humanities in Arts and Sciences; may fulfill diversity requirement | visit www.kent.edu/catalog/kent-core | 3 |
| KFA | **Kent Core IV. Fine Arts** <br> Minimum one course from the fine arts; may fulfill diversity requirement | visit www.kent.edu/catalog/kent-core | 3 |
| KFH | **Kent Core V. Humanities or Fine Arts** <br> One additional course from either the humanities or fine arts category may fulfill diversity requirement. | visit www.kent.edu/catalog/kent-core | 3 |
| KSS | **Kent Core VI. Social Sciences** <br> Must be selected from two curricular areas; may fulfill diversity requirement | ECON 22060 | 3 |
| KBS | **Kent Core VII. Basic Sciences** <br> Must include one laboratory | PHY 23101, PHY 23102 | fulfilled |
| KAD | **Kent Core VIII. Additional** <br> May fulfill diversity requirement | COMM 15000 | 3 |
| DD | **Domestic Diversity Course Requirement** <br> Either domestic or global diversity must be from Kent Core | TECH 31000 | fulfilled |
| DG | **Global Diversity Course Requirement** <br> Either domestic or global diversity must be from Kent Core | visit www.kent.edu/catalog/diversity | one course |
| ELR | **Experiential Learning Requirement** <br> Either course or non-course experience approved by the appropriate faculty member | TECH 33092 | fulfilled |
| WIC | **Writing-Intensive Course Requirement** <br> Minimum C (2.000) grade | TECH 31000, TECH 33092 | fulfilled |