KENT STATE UNIVERSITY

# Roadmap: Manufacturing Engineering Technology - Associate of Applied Science

[RE-AAS-MFET]
Regional College
Catalog Year: 2012-2013

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 | Min. Grade | Major GPA | Important Notes |
|---|---|---|---|---|
| **Semester One: [19 Credit Hours]** | | | | |
| **EERT 22000 Electricity/Electronics with Applications** | **3** | | ■ | |
| **MERT 12000 Engineering Drawing** | **3** | | ■ | |
| EERT 22003 Technical Computing | 3 | | | |
| MATH 11010 Algebra for Calculus | 3 | | | Fulfills Kent Core Mathematics and Critical Reasoning |
| US 10097 Destination Kent State: First Year Experience | 1 | | | Not required of transfer students with 25 credits |
| Kent Core Requirement | 3 | | | See Kent Core Summary |
| Kent Core Requirement | 3 | | | See Kent Core Summary |
| **Semester Two: [17 Credit Hours]** | | | | |
| **EERT 22002 Industrial Controls** | **3** | | ■ | |
| **MERT 12001 Computer-Aided Drafting** | **3** | | ■ | |
| **MERT 12005 Properties of Materials** | **3** | | ■ | |
| **MFGT 12010 Safety in the Workplace** | **2** | | ■ | |
| COMM 15000 Introduction to Human Communication | 3 | | | Fulfills Kent Core Additional for bachelor's degrees |
| MATH 11022 Trigonometry | 3 | | | Fulfills Kent Core Mathematics and Critical Reasoning |
| **Semester Three: [19 Credit Hours]** | | | | |
| **IERT 12005 Applications in Computer-Aided Drafting** | **2** | | ■ | |
| **IERT 22010 Computer Integrated Manufacturing** | **3** | | ■ | |
| **MERT 22012 Fluid Power** | **3** | | ■ | |
| ENG 20002 Introduction to Technical Writing | 3 | | | |
| Science series | 5 | | | Fulfills Kent Core Basic Sciences; see note 2 |
| Automated Machining or Industrial Automation Option | 3 | | | See note 1 |
| **Semester Four: [16-18 Credit Hours]** | | | | |
| **MERT 12004 Manufacturing Processes** | **3** | | ■ | |
| **MFGT 21001 Standard Design** | **3** | | ■ | |
| IERT 22000 Statistical Process Control | 4 | | | |
| PHY 13012 College Physics II | 0-2 | | | See note 2 |
| Automated Machining or Industrial Automation Option | 3 | | ■ | See note 1 |
| Kent Core Requirement | 3 | | | See Kent Core Summary |

## Graduation Requirements Summary

| Minimum Total Hours | Minimum | |
|---|---|---|
| | Major GPA | Overall GPA |
| 71 | 2.000 | 2.000 |

## Kent Core Summary (visit www.kent.edu/catalog/kent-core for course list)

| Kent Core Categories | Important Notes | Remaining Credit Hours |
|---|---|---|
| **Composition (3 credit hours)**<br>*ENG 11002, 11011, 21011; HONR 10197, 10297* | Enrollment based on placement test | 3 |
| **Mathematics and Critical Reasoning (3-5 credit hours)** | Fulfilled in this major with MATH 11010 or 11022 | 0 |
| **Humanities and Fine Arts (3 credit hours)** | | 3 |
| **Social Sciences (3 credit hours)** | | 3 |
| **Basic Sciences (3 credit hours)** | Fulfilled in this major with Science Series selection (see note 2) | 0 |

**Note 1: Automated machining or industrial automation option (6 credit hours), choose one option:**

Automated Machining Option

| | |
|---|---|
| MFGT 13001 Computer Numerical Control Programming | 3 |
| MFGT 23001 Computer-Aided Manufacturing I | 3 |

Industrial Automation Option

| | |
|---|---|
| EERT 22007 Industrial Motor Control and Application | 3 |
| MFGT 22014 Advanced Industrial Electronics | 3 |

**Note 2: Science Series-choose from the following:**

| | | | | |
|---|---|---|---|---|
| PHY 13001 General College Physics I | 4 | OR | PHY 13002 General College Physics II | 4 |
| PHY 13012 College Physics II* | 2 | | PHY 13022 General College Physics Laboratory II | 1 |
| PHY 13021 General College Physics Laboratory I | 1 | | | |

*PHY 13012 will be taken in Semester 4

Students who successfully completed PHY 13001 and 13002 will have met the requirement for PHY 13011 and 13012.