













Computer Aided Design Concentration (9444)


Associate of Applied Science Degree

This concentration emphasizes using CAD (computer aided design) for layout, design, and creating drawings in mechanical and industrial applications. This degree is approved by the AWT (Alliance for Working Together <http://thinkmfg.com/>) to meet employment needs throughout the Alliance in Northeast Ohio.

| Course | Title | Credit Hours |
|---|---|--------------|
| First Semester | | |
| CADT 1100 | Introduction to AutoCAD  | 3 |
| CIMN 1110 | Machining Processes  | 3 |
| ENGL 1110 or ENGL 1111 | English Composition I (A) ² or English Composition I (B) | 3 |
| ENGR 1000 | Introduction to Engineering Technology | 2 |
| FYEX 1000 | First Year Experience | 1 |
| MATH 1080 | Introduction to Technical Mathematics | 4 |
| Credit Hours | | 16 |
| Second Semester | | |
| CADT 1500 | Advanced AutoCAD  | 3 |
| CIMN 1160 | Applied Electricity  | 2 |
| CIMN 1210 | Materials Processing  | 3 |
| MATH 1180 | Technical Mathematics I | 4 |
| MECT 1150 | Technical Communications | 3 |
| MECT 1600 | Geometric Dimensioning and Tolerancing  | 2 |
| Credit Hours | | 17 |
| Third Semester | | |
| CADT 2100 | Introduction to SolidWorks  | 3 |
| CIMN 2240 | Jig and Fixture Design  | 3 |
| COMM 1000 or COMM 1100 | Effective Public Speaking or Effective Interpersonal Communications | 3 |
| MECT 2250 | Mechanism Design  | 3 |
| PHYS 1100 | Applied Physics Mechanics | 3 |
| Select course(s) from the Social and Behavioral Sciences Electives list | | 3 |
| Credit Hours | | 18 |
| Fourth Semester | | |
| CADT 2500 | Advanced SolidWorks  | 3 |
| CIMN 2875 | Design and Manufacturing Capstone  | 3 |
| PHYS 1200 | Applied Physics Heat and Thermodynamics | 3 |
| QENT 1200 | Quality Concepts and Techniques  | 2 |
| Select course(s) from the Arts and Humanities Electives list | | 3 |
| Credit Hours | | 14 |
| Total Credit Hours | | 65 |

¹ Students may substitute either COMM 1000 Effective Public Speaking or COMM 1100 Effective Interpersonal Communications. One of these 3 credit courses may be required for students transferring to a four-year college.

² English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits; only 3 credits apply to the degree).

 This course is designated as a technical course in the program. Students must earn a "C" grade or higher in the course to fulfill the college's graduation requirements policy.

Electives

| Course | Title | Credit Hours |
|---------------------------------------|--|--------------|
| Arts and Humanities | | |
| ARTS 1120 | Art Appreciation | 3 |
| ARTS 2220 | Survey of Art I | 3 |
| ARTS 2230 | Survey of Art II | 3 |
| ENGL 2250 | Survey of American Literature I | 3 |
| ENGL 2260 | Survey of American Literature II | 3 |
| ENGL 2280 | Survey of British Literature I | 3 |
| ENGL 2290 | Survey of British Literature II | 3 |
| HUMX 1100 | Introduction to Humanities | 3 |
| HUMX 1200 | The American Experience in the Arts | 3 |
| MUSC 1200 | Music Appreciation | 3 |
| MUSC 1215 | World Music | 3 |
| MUSC 1800 | Popular Music: Rock, Jazz, Country, and Hip-Hop | 3 |
| MUSC 2200 | Music History and Literature I | 3 |
| MUSC 2250 | Music History and Literature II | 3 |
| PHIL 1500 | Introduction to Philosophy | 3 |
| PHIL 2000 | Comparative Religion | 3 |
| PHOT 1000 | History of Photography | 3 |
| Social and Behavioral Sciences | | |
| ANTH 1160 | Introduction to Cultural Anthropology | 3 |
| ECON 1150 | Basic Economics | 3 |
| ECON 2500 | Principles of Macroeconomics | 3 |
| ECON 2600 | Principles of Microeconomics | 3 |
| GEOG 1500 | Introduction to Geography | 3 |
| GEOG 1600 | World Regional Geography | 3 |
| GEOG 2500 | World Cultural Geography | 3 |
| HIST 1150 | Western Civilization I: Antiquity Through the Reformation | 3 |
| HIST 1250 | Western Civilization II: Age of Revolution Through the Present | 3 |
| HIST 2150 | U.S. History: Colonization Through Reconstruction | 3 |
| HIST 2250 | U.S. History: Reconstruction to the Present | 3 |
| POLS 1300 | U.S. National Government | 3 |
| POLS 2500 | Modern Political Ideologies | 3 |
| PSYC 1500 | Introduction to Psychology | 3 |
| SOCY 1150 | Principles of Sociology | 3 |