Student ID: _____	**Catalog: _____**
Student Name: _____	**Program: Individualized Degree, B.S.**
Advisor Name: _____	**Minimum Credits Required: _____**

Individualized Degree Program; Advanced Manufacturing Sciences, Robotics, B.S.

The interdisciplinary Advanced Manufacturing Sciences (AMS) Robotics IDP program combines the fields of advanced manufacturing, computer science, mechanical engineering, and electrical engineering. With hands-on laboratory classes and sound theoretical coursework, this four-year professional undergraduate program will prepare you for an innovative career in advanced manufacturing.

Degree/Graduation Requirements

- Multicultural Course
  - Students may fulfill the multicultural requirement by taking approved courses within one of the following categories: arts and humanities, historical, natural and physical sciences, or social and behavioral sciences.
- Senior Experience
  - AMS 4950 - Senior Experience Professional Internship

General Requirements

General Study Requirements

- Written Communication 6
  - Recommended Courses: ENG 1010 – Composing Arguments (3), ENG 1020 – Research & Argument Writing (3)
- Oral Communications 3
- Quantitative Literacy 3
- Arts and Humanities 6
- Historical 3
- Natural & Physical Sciences 6
- Recommended Courses: PHY 2010 College Physics I (4), PHY 2030 College Physics I Lab (1), PHY 2040 College Physics II Lab (1)
- Social and Behavioral Sciences 6
  - Select one course from Social and Behavioral Sciences course list (3)
  - Recommended Course: CET 3120 Engineering Economy (3)
- Global Diversity (Can also satisfy a General Studies category, above.) 3
  - Students may fulfill the global diversity requirements by taking approved courses within one of the following categories: arts and humanities; historical; natural and physical sciences; or social and behavioral sciences.

Total of required credits for General Studies: 33-36

Overview of Major Requirements

- Core classes (47 credits)
- Elective classes (43 credits)

See below for courses

Major Requirements

Advanced Manufacturing Core Courses

- AMS 4950 - Senior Experience Professional Internship (3)
- AMS 1010 - Survey of Advanced Manufacturing and Workplace Preparation (3)
- AMS 3010 - Additive Manufacturing Stratasys Certification Preparation (3)
- JMP 2610 - Introduction to Technical Writing (3)
- EET 1001 - Electronics: An Introduction (3)
- MET 1010 - Manufacturing Processes (3)
  OR
- IND 2830 - Manufacturing Materials & Processes (3)
- IND 1450 - Technical Drawing and CAD (3)
  OR
- CET 1215 - Engineering Graphics (3)
  OR
- MET 1200 - Technical Drawing I (3)
- MET 1310 - Principles of Quality Assurance (3)
- MET 2010 - CNC Machining and Inspection (3)
- MET 3000 - Manufacturing Analysis (4)
- MET 3630 - Lean Manufacturing Systems Engineering (3)
- MTH 1120 - College Trigonometry (3)
- CS 1030 - Computer Science Principles (4)
- CSS 2751 - Principles of Cybersecurity (3)
- CSS 3753 Computing & Security for Manufacturing (3)

Total Core Credits: 47 credit hours, 16 upper division

Robotics Courses

- MTH 1410 Calculus I (4)
- MTH 2410 Calculus II (4)
- PHY 2020 College Physics II (4)
- PHY 2040 College Physics II Lab (fulfills GS Natural & Physical Sciences requirement)
- CS 1400 Computer Organization 1 (4)
- EET 2000 Electric Circuits & Machines (3)
- EET 2350 Advanced Technical Programming (3)
- EET 3010 Industrial Electronics (4)
- EET 3370 - Digital Circuits for Advanced Manufacturing (3)
  OR
- EET 3380 - Technical Programming for Advanced Manufacturing (3)
- EET 3410 Electric Machines (3)
- EET 3740 Programmable Logic Controllers (2)
- EET 4730 Robotics (3)
- MET 3330 Robotics for Manufacturing (3)
- MET 4080 Computer Aided Manufacturing (3)

Total robotics credits: 43 credit hours, 21 upper division

Total Credits: 123 credit hours, 40 upper division

Contact the Center for Individualized Learning here: CIL Website and CIL Contact Form