

Associates in Science

Advanced Manufacturing Technology (22030)

2015—2016



About the Major

Advanced manufacturing is the process of mass producing products on demand, using the latest technology to maintain efficiency. It can also be looked at as a process that manages a manufacturer's supply of raw materials and its capacity to produce a finished product at the lowest possible cost. This process ensures that the client's demand for the product will be satisfied in quality and quantity, as well as improve the manufacturer's rate of on-time delivery.

Skills you will learn...

- ◆ Quality Assurance
- ◆ Supply Chain Management
- ◆ Operate and Troubleshoot Automation Systems
- ◆ Pneumatics and Hydraulics
- ◆ Implementation of Lean concepts
- ◆ Principles of Robotics
- ◆ Process Optimization
- ◆ Programmable Logic Controllers

The Advantage of the degree

The Advanced Manufacturing program at Miami Dade College was created in response to the increasing global demand for advanced manufacturing professionals. The program is designed to prepare students for the modern manufacturing environment, by preparing students for employment with companies that have implemented team oriented design, production, quality, and maintenance systems within both the manufacturing and service environment.

Earn This Degree and Work as...

Position	Median Salary
Industrial Engineering Technician	\$50,980
Mechanical Engineering Technician	\$51,980
Operations Technician	\$61,530
Aerospace Engineering Technician	\$61,530
Logisticians	\$72,780

Source for position and salary information is from Bureau of Labor Statistics 2012.



Advanced Manufacturing Suggested Program Schedule

Program Code 22030 Associate in Science

Total credits required for the degree is 64.

The Advanced Manufacturing degree is designed to prepare students for the modern day manufacturing environment. This program will prepare you for employment with companies that have implemented team oriented design, production, quality, and maintenance systems within the manufacturing environment. It is critical that these companies be able to recruit and employ individuals who know how to operate, troubleshoot, and maintain this high-tech equipment.

MAJOR COURSE REQUIREMENTS—42 credits required

Must take 39 credits from the following group

Course	Course Title	Credits
ETI1172	Intro to Quality Assurance	3
ETI1622	Concepts of Lean and Six Sigma	3
ETI1644	Advanced Manufacturing Supply Chain	3
ETI2404	Advanced Manufacturing Technology	3
EET1015C	Direct Current Circuits	4
EET1025C	Alternating Current Circuits	4
CET1110C	Digital Circuits	4
COP2270	"C" for Engineers	4
ETD1340	AutoCAD	3
ETI1701	Industrial Safety	3
ETM1315C	Applied Pneumatics and Hydraulics	3
ETI1040	Bioscience Manufacturing	3
ETI1040L	Bioscience Manufacturing Lab	2
MAC1114	Trigonometry	3

PROGRAM ELECTIVES— 4 credits required

Choose 4 credits from these Electives

BSC2943L	Bioscience Internship	1-4
EGN1949	Co-op Work Experience	1-4
EET1082	Intro to Electronics	3
ETM1700	Air Condition Fundamentals	3
ETS2542C	Programmable Logic Controllers	3

GENERAL EDUCATION REQUIREMENTS—15 credits required

ENC1101	English Composition 1	3
SPC1017	Fundamentals of Speech Communication	3
PHI2604	Critical Thinking/Ethics	3
CLP1006	Psychology of Personal Effectiveness	3
MAC1105	College Algebra	3

COMPUTER COMPETENCY

CGS1060	Introduction to Microcomputer Usage	0
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The following schedule is based on students beginning in one of the major semesters (Fall or Spring) and following the suggested curriculum on a continuing Fall/Spring basis as prescribed by the Faculty of the Department. Please note that some classes may not be offered every semester as well as some may not be offered in the Summer. It is highly recommended that you seek the advice of an Engineering department advisor and/or faculty member prior to starting.

First Term 14 Credits

EET1015C	Direct Current Circuits	4
COP2270	"C" for Engineers	4
MAC1105	College Algebra	3
ENC1101	English Composition I	3

Second Term 14 Credits

CET1110C	Digital Circuits	4
EET1025C	Alternating Current Circuits	4
MAC1114	Trigonometry	3
SPC1017	Fundamentals of Speech Communication	3

Third Term 12 Credits

PHI2604	Critical Thinking/Ethics	3
ETD1340	AutoCAD	3
ETM1315C	Applied Pneumatics and Hydraulics	3
ETI1701	Industrial Safety	3

Fourth Term 14 Credits

ETI1622	Concepts of Lean and Six Sigma	3
ETI1172	Advanced Manufacturing Supply Chain	3
CLP1006	Psychology of Personal Effectiveness	3
ETI1040	Bioscience Manufacturing	3
ETI1040L	Bioscience Manufacturing Lab	2

Fifth Term 10 Credits

ETI1644	Advanced Manufacturing Supply Chain	3
ETI2404	Advanced Manufacturing Technology	3
Technical Elective		4

NOTE: Some classes have pre-requisite or co-requisite requirements which may or may not be listed on the program sheet. It is the students responsibility to find out which classes do have these said requirements and consult with the engineering advisor prior to starting the program.

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