Fox Valley TECHNICAL COLLEGE
Business & Industry Services

Automation Technology & Industrial Maintenance Career Pathway

Fundamentals of Maintenance Certificate (FMC)

Courses Required

- DC Circuits 1[1]
- DC Circuits 2[1]
- DC Circuits 3[1]
- AC Circuits 1[1]
- Motors & Drives 2[1]
- System Troubleshooting[1]
- Fluid Power 1[1]
- Ladder Logic & Control Devices[1]
- College Tech Math 1A[1]

Total Credits = 11

Industrial Maintenance Certificate (IMC)

Courses Required
FMC + 8 Credits

- Fluid Power 2[2]
- Electrical Power Distribution 1[2]
- Elements of Machines 1[2]
- Elements of Machines 2[2]
- Concepts of Programming for Technicians[2]
- AutoCAD Fundamentals
- PLC 1[2]

Total Credits = 17
IMC does not require Motors & Drives 2 or System Troubleshooting

Industrial Maintenance Diploma (IMD)

Courses Required
FMC + IMC + 8 Credits

- Blueprint Reading & AutoCAD
- Electrical Power Distribution 2[2]
- Motors & Drives 1
- Electronic Construction Applications[2]
- PLC 2[2]*
- PLC 3[3A, 3B]*
- Operator Interfaces
- Technical Software Essentials

Total Credits = 26

Automation Common Courses (ACC)

Courses Required
FMC + IMC + IMD + 25 Credits

- PLC 4[3B]*
- PLC 5[3A]*
- Semiconductors 1
- Robotics 1[3A]*
- Robotics 2[3A]*
- Instrumentation & Process Control 1[3A, 3B]
- Instrumentation & Process Control 2[3A, 3B]
- Instrumentation & Process Control 3[3B, 3A]
- Computer Systems
- Computer Systems & Networks
- Math & Logic
- Written Communication
- Psychology of Human Relations
- Oral Communication
- Economics

Total Credits = 51

Automated Manufacturing Systems (AMS) Associate Degree

Courses Required
FMC + IMC + IMD + ACC + 9 Credits

- Intro to Cell Integration*
- Visual Basic Programming 1
- Visual Basic Programming 2
- Enterprise Integration 1*
- Enterprise Integration 2*
- Cell Integration*
- Elective Credit (Ex: Fluid Power 3[2])

Total Credits = 60

Electro-Mechanical Technology (EM) Associate Degree

Courses Required
FMC + IMC + IMD + ACC + 9 Credits

- Semiconductors 2
- Sensors
- Drives
- Advanced Programming Controllers
- Fluid Power 3[2]
- Fluid Power 4[3A]
- Electrical Mechanical Systems 1
- Two Elective Credits

Total Credits = 60

[1]Classes in Year One (two semesters)
[2]Classes in Year Two (two semesters)
[3A]Classes in Year Three - Siemens (two semesters)
[3B]Classes in Year Three - Rockwell (one semester)
*Classes in Advanced Automation & Maintenance (two semesters)