

Fundamentals of Maintenance Certificate (FMC)

Courses Required

- DC Circuits 1¹
- DC Circuits 2¹
- DC Circuits 3¹
- AC Circuits 1¹
- Motors & Drives 2¹
- System Troubleshooting¹
- Hydraulics 1¹
- Ladder Logic & Control Devices¹
- College Tech Math 1A¹

Total Credits = 11

Industrial Maintenance Foundations Certificate (IMC)

Courses Required

FMC + 8 Credits

- Pneumatics 1²
- Pneumatics 2²
- Essentials of Manufacturing Safety (or Electrical Power Distribution 1)²
- Elements of Machines 1²
- Elements of Machines 2²
- Concepts of Programming for Technicians²
- AutoCAD Fundamentals
- PLC 1²

Total Credits = 16

IMC does not require Motors & Drives 2, System Troubleshooting or Hydraulics 1

Industrial Maintenance Mechanic Diploma (IMD)

Courses Required

FMC + IMC + 8 Credits

- Blueprint Reading & AutoCAD
- Computer Systems & Networks 1
- Motors & Drives 1
- Electronic Construction Applications²
- PLC 2^{2*}
- PLC 3^{3A, 3B*}
- Operator Interfaces^{*}
- Technical Software Essentials

Total Credits = 26

IMD does not include Hydraulics 1 or Industrial Electrical Applications

Automation Common Courses (ACC)

Courses Required

FMC + IMC + IMD + 24 Credits

- Industrial Electrical Applications²
- PLC 4^{3B*}
- PLC 5^{3A*}
- Robotics 1^{3A*}
- Robotics 2^{3A*}
- Instrumentation & Process Control 1^{3A, 3B}
- Instrumentation & Process Control 2^{3A, 3B}
- Instrumentation & Process Control 3^{3A, 3B}
- Computer Systems & Networks 2
- 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

- Robotics Integration
- Visual Basic Programming 1
- Visual Basic Programming 2
- Enterprise Integration 1
- Enterprise Integration 2^{*}
- Cell Integration^{*}

Total Credits = 60

Electro-Mechanical Technology (EM)
Associate Degree

Courses Required

FMC + IMC + IMD + ACC + 9 Credits

- Hydraulics 2^{3A}
- Semiconductors 1
- Semiconductors 2
- Sensors
- Advanced AC/DC Variable Speed Drives
- Advanced Programming Controllers 1
- Advanced Programming Logic Controllers 2
- Electrical Mechanical Systems 1
- One Elective Credit

Total Credits = 60

¹Classes in Year One (two semesters)

²Classes 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)

Contact Business & Industry Services to get started!

bi.services@fvtc.edu | (920) 996-2949 | fvtc.edu/BIS