



 Frederick Community College

Logistics & Production Technology



Frederick County is fast becoming a hub for innovation in production and logistics, and job growth is expected to continue.

The new **Logistics & Production Technology** program at Frederick Community College prepares students for a successful career in supply chain, biotechnology, and manufacturing industries. Students develop competency with in-demand equipment and processes, strengthen mathematics and measurement skills, and practice communication and customer relations. This is a noncredit program that provides a foundation for industry jobs or the pursuit of advanced training.

Classes are now enrolling for fall 2021, with additional courses debuting in spring 2022.

Short Term Workforce Programs



Available Fall 2021

LOGISTICS

- Foundations of Logistics & Production
- Applied Logistics
- Supply Chain Automation

3 Industry Credentials



Coming Soon

BIOTECH SYSTEMS & MAINTENANCE

- PLC and Delta V Fundamentals
- Sensors
- Mechanical Systems
- Robotics Fundamentals
- Regulation, Documentation, Maintenance, Measurement, Facilities, & Current Good Manufacturing Practices

4 Industry Credentials



Available Spring 2022

MANUFACTURING TECHNOLOGY 1

- Foundations of Logistics & Production
- Electricity Fundamentals
- Fluid Power Fundamentals
- Mechanical Systems
- PLC Fundamentals
- Robotics Fundamentals

9 Industry Credentials



Coming Soon

MANUFACTURING TECHNOLOGY 2

- Product ID Fundamentals
- Applied Fluid Power
- Applied Mechanical Systems
- Applied PLC
- Applied Robotics
- Applied Industry 4.0

6 Industry Credentials

Foundations of Logistics & Production

This course introduces students to the fields of logistics and production/manufacturing. It provides instruction and application of skills needed for diverse job roles in this field. Subjects include key math skills, communication skills with special focus on customer service and interpersonal communication concepts, professional development skills in gaining and maintaining employment, and exploration of the diverse job roles in logistics and production.

Available Fall 2021

PRD101 | 39 hours | \$549 (\$365 tuition + \$184 fees)*

INSTRUCTOR: Jeff Green

M/W 5:30-8:30 p.m. 9/15-10/27 Monroe Center (MC116)

Note: This Hybrid Remote Course is primarily online with required periodic on-campus meetings during scheduled times.

For more information, visit frederick.edu/courseformats.

**In-county price. Maryland students residing outside of Frederick County are charged an additional \$5 fee per course. Students residing outside the state of Maryland are charged an additional \$10 per course.*

ENROLL NOW



Certified Logistics Technician

Prepare for frontline material handling and supply chain logistics jobs in fulfillment centers, warehouses, distribution centers, and factories. Training focuses on receiving, stocking, shipping, inventory control, materials handling, and dispatch. The course includes assessments for two national industry credentials, MSSC Certified Logistics Associate and Certified Logistics Technician.

Available Fall 2021

PRD121 | 60 hours | \$1440 (\$865 tuition + \$575 fees)*

INSTRUCTOR: Jeff Green

M/W 5:30-8:30 p.m. 11/3-12/8 Monroe Center (MC116)

Note: This Hybrid Remote Course is primarily online with required periodic on-campus meetings during scheduled times. For more information, visit frederick.edu/courseformats.

**In-county price. Maryland students residing outside of Frederick County are charged an additional \$5 fee per course. Students residing outside the state of Maryland are charged an additional \$10 per course.*

ENROLL NOW



Fundamentals of Electricity and Fluid Power

This course focuses on basic principles of electricity, pneumatics, and hydraulics, and their use within the manufacturing environment, including how to work safely to decrease production downtime, improve efficiency, and increase output. This hands-on course teaches students how to design, build, test, and troubleshoot these systems using state-of-the-art training equipment and prepares students to be well-rounded machine operators/production technicians, with responsibility for efficient operation of equipment while ensuring that systems are running at maximum capacity. Students sit for nationally-recognized National Coalition of Certification Centers (NC3) certifications Fundamentals of Fluid Power – Hydraulics, Fundamentals of Fluid Power – Pneumatics, Fundamentals of Electricity – AC, and Fundamentals of Electricity – DC.

Coming Spring 2022

PRD141 | 60 hours | \$1200 (\$905 tuition + \$295 fees)*

**In-county price. Maryland students residing outside of Frederick County are charged an additional \$5 fee per course. Students residing outside the state of Maryland are charged an additional \$10 per course.*



Fundamentals of Mechanical Systems

This course delivers hands-on, realistic experience in identification, installation, and troubleshooting of common machine elements on industrial-grade equipment. Students install and commission belt, chain, and gear drives and build and align systems. This course prepares students to be well-rounded machine operators/production technicians, with responsibility for efficient operation of equipment while ensuring that systems are running at maximum capacity. Students sit for a nationally-recognized National Coalition of Certification Centers (NC3) certification in Fundamentals of Mechanical Systems.

Coming Spring 2022

PRD142 | 60 hours | \$1200 (\$905 tuition + \$295 fees)*

**In-county price. Maryland students residing outside of Frederick County are charged an additional \$5 fee per course. Students residing outside the state of Maryland are charged an additional \$10 per course.*



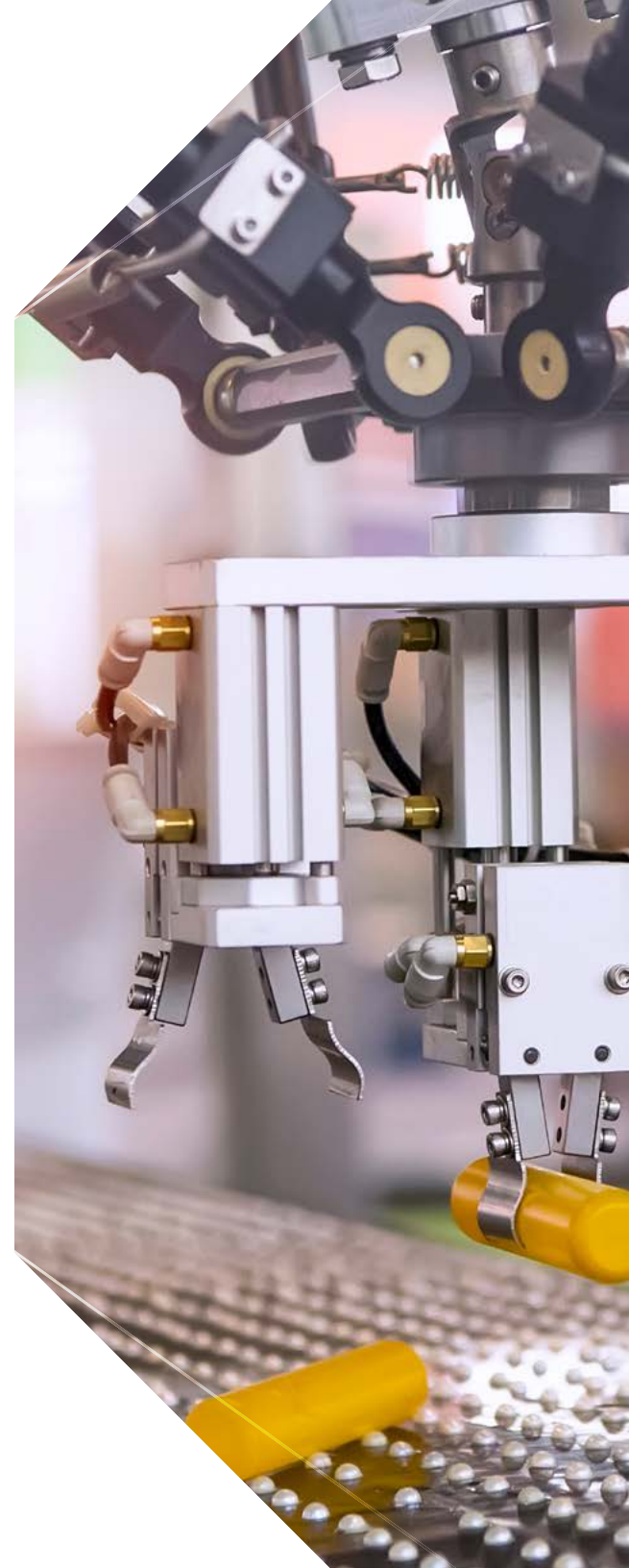
Fundamentals of Sensors, PLCs, and Robotics

Using high-end products from Rockwell Automation and Fanuc, students acquire hands-on and realistic experience with industrial control equipment including sensors, programmable logic controllers (PLC), and robotics. This course prepares students to program a PLC efficiently in widely-used programming environments and languages. Students are prepared to be well-rounded machine operators/production technicians, with responsibility for efficient operation of equipment while ensuring that systems are running at maximum capacity. Students sit for nationally-recognized National Coalition of Certification Centers (NC3) certifications in Fundamentals of Sensor Technology, Fundamentals of Robotics, Fundamentals of PLC: Allen Bradley, and Fundamentals of PLC: Siemens.

Coming Spring 2022

PRD143 | 60 hours | \$1200 (\$905 tuition + \$295 fees)*

**In-county price. Maryland students residing outside of Frederick County are charged an additional \$5 fee per course. Students residing outside the state of Maryland are charged an additional \$10 per course.*



Logistics Industry



AVERAGE ANNUAL SALARY

\$32,634

for laborers and freight, stock, and material movers in the Frederick regional workforce area

\$49,504

for transportation and warehousing in the Frederick regional workforce area



JOBS & EMPLOYMENT OUTLOOK

293

warehousing and storage jobs in Frederick County

25,402

warehousing and storage jobs in Maryland

Employment in warehousing and storage jobs in Maryland is projected to double between 2016-2026. Occupations in Frederick County include laborers and freight, stock, and material movers; stockers and order fillers; and first-line supervisors of the above.

Sources: EMSI, economicmodeling.com, MWE, mwejobs.maryland.gov



Manufacturing Industry



AVERAGE ANNUAL SALARY

\$60,000-\$77,000

in Frederick County, depending on the position



JOBS & EMPLOYMENT OUTLOOK

5,567

manufacturing jobs in
Frederick County

112,250

manufacturing jobs
in Maryland

Employment in manufacturing jobs in Frederick County is projected to increase 15.2% between 2016-2026. With 314 positions posted, manufacturing jobs represented the fifth-largest job posting category in Frederick County in December 2020. Occupations in Frederick County include first-line supervisors of production and operating workers; laborers and freight, production, operator, and industrial maintenance technicians; and technicians in mechatronics, automation, robotics, PLC, and electromechanics.

Sources: EMSI, economicmodeling.com, MWE, mwejobs.maryland.gov



Biotechnology Industry

Biotechnology Systems & Maintenance classes are in development and will be offered soon.



AVERAGE ANNUAL SALARY

\$37,000-\$50,000

in Frederick County, depending on the position



JOBS & EMPLOYMENT OUTLOOK

209

biotechnology manufacturing
jobs in Frederick County

2,490

biotechnology manufacturing
jobs in Maryland

Biotechnology manufacturers are expected to continue to be drawn to Frederick County, with the number of jobs expected to more than triple between 2016-2026. There are a wide range of jobs associated with this industry; the FCC Biotech Systems & Maintenance courses prepare students for jobs as biorepository technicians, production technicians, process technicians, process mechanics, maintenance technicians, or manufacturing associates.

Source: EMSI, economicmodeling.com



Contact



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ADDITIONAL INFORMATION

[Frederick Community College Logistics & Production Technology](#)

[Frederick County Workforce Services Transportation, Warehousing, & Logistics](#)

[Frederick County Workforce Services Manufacturing](#)

Frederick Community College prohibits discrimination against any person on the basis of age, ancestry, citizenship status, color, creed, ethnicity, gender identity and expression, genetic information, marital status, mental or physical disability, national origin, race, religious affiliation, sex, sexual orientation, or veteran status in its activities, admissions, educational programs, and employment. Frederick Community College makes every effort to accommodate individuals with disabilities for College-sponsored events and programs. If you have accommodation needs or questions, please call 301.846.2408. To request a sign language interpreter, please visit <http://fcc-interpreting.genbook.com>. If you have interpreting related questions, please email Interpreting@frederick.edu. Sign language interpreters will not be automatically provided for College-sponsored events without a request for services. To guarantee accommodations, requests must be made at least five workdays in advance of a scheduled event. If your request pertains to accessible transportation for a College-sponsored trip, please submit your request at least 21 calendar days in advance. Requests made less than 21 calendar days in advance may not be able to be guaranteed.