

DURHAM TECHNICAL COMMUNITY COLLEGE PLAN OF STUDY

Revised Fall 2022

INDUSTRIAL SYSTEMS TECHNOLOGY

Catalog/Academic Year 2023-2024

Day and Evening Program

Advanced Manufacturing

6 Semesters

Associate Degree (A50240A)

Key to symbols after some courses:

* Developmental courses (ENG 002 and/or MAT 003) may be required based on college placement and course requisites.

^{GE} Fulfills the general education requirements for this degree.

FALL SEMESTER 2023

| Course | Hours Class | Hours Lab | Hours Clinical | Hours Credit | Program Remarks | Notes |
|---|----------------|--------------|-------------------|-----------------|-----------------|-------|
| ACA 122 College Transfer Success | 0 | 2 | 0 | 1 | | |
| ELC 112 DC/AC Electricity | 3 | 6 | 0 | 5 | | |
| ENG 111 Writing and Inquiry* ^{GE} | 3 | 0 | 0 | 3 | | |
| MAT 121 Algebra/Trigonometry I* ^{GE} | 2 | 2 | 0 | 3 | | |
| MNT 110 Intro to Maintenance Procedures | 1 | 3 | 0 | 2 | | |

SPRING SEMESTER 2024

| Course | Hours Class | Hours Lab | Hours Clinical | Hours Credit | Program Remarks | Notes |
|--|----------------|--------------|-------------------|-----------------|-----------------|-------|
| CIS 110 Introduction to Computers | 2 | 2 | 0 | 3 | | |
| COM 231 Public Speaking* ^{GE} | 3 | 0 | 0 | 3 | | |
| ELC 117 Motors and Controls | 2 | 6 | 0 | 4 | | |
| ISC 112 Industrial Safety | 2 | 0 | 0 | 2 | | |

SUMMER TERM 2024

| Course | Hours Class | Hours Lab | Hours Clinical | Hours Credit | Program Remarks | Notes |
|--|----------------|--------------|-------------------|-----------------|-----------------|-------|
| ELC 128 Intro to PLC | 2 | 3 | 0 | 3 | | |
| HUM 115 Critical Thinking* ^{GE} | 3 | 0 | 0 | 3 | | |
| HYD 110 Hydraulics/Pneumatics I | 2 | 3 | 0 | 3 | | |

FALL SEMESTER 2024

| Course | Hours Class | Hours Lab | Hours Clinical | Hours Credit | Program Remarks | Notes |
|---------------------------------|----------------|--------------|-------------------|-----------------|-----------------|-------|
| BPR 111 Print Reading | 1 | 2 | 0 | 2 | | |
| ELC 228 PLC Applications | 2 | 6 | 0 | 4 | | |
| MAC 121 Introduction to CNC | 2 | 0 | 0 | 2 | | |
| MEC 111 Machine Processes I | 1 | 4 | 0 | 3 | | |
| WLD 112 Basic Welding Processes | 1 | 3 | 0 | 2 | | |

SPRING SEMESTER 2025

| Course | Hours Class | Hours Lab | Hours Clinical | Hours Credit | Program Remarks | Notes |
|--|----------------|--------------|-------------------|-----------------|-----------------|-------|
| ELC 213 Instrumentation | 3 | 2 | 0 | 4 | | |
| MNT 230 Pumps & Piping Systems | 1 | 3 | 0 | 2 | | |
| MNT 240 Industrial Equip Troubleshooting | 1 | 3 | 0 | 2 | | |
| WLD 121 GMAW (MIG) FCAW/Plate | 2 | 6 | 0 | 4 | | |

SUMMER TERM 2025

| Course | Hours Class | Hours Lab | Hours Clinical | Hours Credit | Program Remarks | Notes |
|--------------------------------------|----------------|--------------|-------------------|-----------------|-----------------|-------|
| ATR 218 Work Cell Integration | 2 | 3 | 0 | 3 | | |
| ELC 215 Electrical Maintenance | 2 | 3 | 0 | 3 | | |
| SOC 210 Introduction to Sociology*GE | 3 | 0 | 0 | 3 | | |

MINIMUM SEMESTER HOURS REQUIRED FOR AAS DEGREE**69**

For additional information about requirements and graduation, please refer to the [Curriculum Program Completion and Graduation](#) policy. Program-specific criteria may be found on the respective [Programs](#) page. For questions about this program, consult the Program Director or an advisor for assistance.