# ENGINEERING TECHNOLOGY, A.A.S.

**Location(s):** LO, MA
**NOVA Code:** 9680

## Purpose

This program is designed to prepare students for employment as a technician, operator, and/or technologist in the fields of engineering technology, electrical technology, industrial technology, operational technology, sensor technology, automation technology, robotics and mechatronics.

## Transfer Information

Transfer is not the primary purpose of an A.A.S. program, but NOVA has articulation agreements that facilitate the transfer of this and other career-oriented programs to selected senior institutions. Students interested in transfer should contact a counselor or their academic advisor early in their program.

## Two Years

| Course | Title | Credits |
|---|---|---|
| **1st Semester** | | |
| ELE 150 | A.C. and D.C. Circuit Fundamentals | 3 |
| ENG 115 | Technical Writing | 3 |
| IND 123 | Introduction to Lean Manufacturing and Six Sigma | 1 |
| IND 137 | Team Concepts & Problem Solving | 3 |
| MEC 140 | Introduction to Mechatronics [1] | 3 |
| SAF 130 | Industrial Safety OSHA 10 | 1 |
| SDV 100<br>or SDV 101 | College Success Skills<br>or Orientation to: | 1 |
| | **Credits** | **15** |
| **2nd Semester** | | |
| CAD 175 | Schematics and Mechanical Diagrams | 2 |
| ELE 146 | Electric Motor Control | 4 |
| ELE 233 | Programmable Logic Controller Systems I | 3 |
| MTH 111 | Basic Technical Mathematics (or Higher) | 3 |
| MEC 230 | Mechatronics Process Control [1] | 3 |
| | **Credits** | **15** |
| **3rd Semester** | | |
| CST 126 | Interpersonal Communication | 3 |
| ETR 281 | Digital Systems | 3 |
| INS 233 | Process Control Integration | 4 |
| MEC 270 | Computation for Engineering Technology | 3 |
| Technical Elective (p. 1) [1] | | 3 |
| | **Credits** | **16** |
| **4th Semester** | | |
| ELE 211 | Electrical Machines I | 3 |
| MEC 266 | Application of Fluid Mechanics | 3 |
| Humanities/Fine Arts Elective (https://catalog.nvcc.edu/general-education-electives/#ge_hum_fa_elect) | | 3 |
| Social/Behavioral Sciences Elective (https://catalog.nvcc.edu/general-education-electives/#ge_soc_beh_sci_elec) | | 3 |
| Technical Elective (p. 1) [1] | | 3 |
| | **Credits** | **15** |
| | **Total Credits** | **61** |

Electives should be chosen with the advice of an academic advisor to meet the requirements of the intended transfer institution.

[1] MEC 140 Introduction to Mechatronics, MEC 230 Mechatronics Process Control, MEC 266 Application of Fluid Mechanics, INS 233 Process Control Integration are only offered on the Manassas Campus, and ETR 281 Digital Systems is offered on the Loudon and Manassas Campus.

### Approved Technical Electives

| Code | Title | Credits |
|---|---|---|
| INS 230 | Instrumentation I | 3 |
| BUS 204 | Project Management | 3 |
| ELE 189 | Data Cabling Communication | 3 |
| ELE 250 | Fiber Optic Technology | 3 |
| ITP 170 | Project Management | 3 |