# Energy Technology · Third Year Option in Robotics

## Semester Course Outline · 2024 – 2025

**9 Months (2 Semesters) • Revised: 1/22/24**
**Credits Required for Graduation: 33**

Graduates from the Energy Technology program can enroll in a third-year option to obtain an A.A.S. degree in Robotics. Admittance will be approved by the Robotics instructional staff.

**Fall Semester**

| Course Number | Course Title | Clock Hours | Credits |
|---|---|---|---|
| EST 115 | Electronic Systems | 112 | 4 |
| EST 219 | 3D Printer Build | 84 | 3 |
| EST 247 | Microcontrollers | 84 | 3 |
| EST 267 | Rework, Repair, and Surface Mount Soldering | 56 | 2 |
| RBTC 200 | Mechanical Design and 3-D Modeling A | 56 | 2 |
| RBTC 203 | Mechanical Design and 3-D Modeling B | 28 | 1 |
| RBTC 227 | Robot Operation and Programming | 56 | 2 |
| | **Total** | 504 | 18 |

**Spring Semester**

| Course Number | Course Title | Clock Hours | Credits |
|---|---|---|---|
| EST 246 | Circuit Board Design | 84 | 3 |
| RBTC 202 | Robotic Engineering | 168 | 6 |
| RBTC 219 | PLC Integration | 84 | 3 |
| RBTC 238 | Advanced Robotic Operation | 84 | 3 |
| | **Total** | 420 | 15 |