



# Energy Operations • Third Year Option in Robotics

## Semester Course Outline • 2026 – 2027

9 Months (2 Semesters) • Revised: 2/3/26

Credits Required for Graduation: 37

Graduates from the Energy Operations 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 246	Circuit Board Design	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	84	3
RBTC 219	Programmable Logic Controllers (PLC) Integration	56	2
RBTC 227	Robot Operation and Programming	56	2
RBTC 229	Introduction to Vision Systems	56	2
<b>Total</b>		476	17

### Spring Semester

Course Number	Course Title	Clock Hours	Credits
EST 115	Electronic Systems	112	4
EST 219	3D Printer Build	84	3
PM 228	Introduction to Precision Machining	112	4
RBTC 202	Robotic Engineering	168	6
RBTC 238	Advanced Robotic Integration and Vision	84	3
<b>Total</b>		560	20