

# Energy Operations • Third Year Option in Robotics

## Semester Course Outline • 2024 – 2025

9 Months (2 Semesters) • Revised: 1/22/24

Credits Required: 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 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	84	3
<b>Total</b>		504	18

### Spring Semester

Course Number	Course Title	Clock Hours	Credits
EST 246	Circuit Board Design	84	3
PM 228	Introduction to Precision Machining	112	4
RBTC 202	Robotic Engineering	168	6
RBTC 219	PLC Integration	84	3
RBTC 238	Advanced Robotic Operation	84	3
<b>Total</b>		532	19