



Energy Operations

Semester Course Outline • 2026 – 2027

20 Months (4 Semesters, 1 Summer Session) • Revised: 2/24/26

Associate of Applied Science (A.A.S.) Degree • Credits Required for Graduation: 72

First Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
EO 103	Fundamentals of Maintenance Operations	84	3
ET 105	OSHA/Safety, Torque Certifications, Valves, and Lifts	56	2
ET 150	Mechanical Systems	56	2
EST 116	DC/AC Electronics	112	4
EST 121	Digital Systems	112	4
WLD 232	Welding Process	56	2
Total		476	17

First Year – Spring Semester

Course Number	Course Title	Clock Hours	Credits
EO 110	Fundamentals Thermodynamics Theory and Lab	84	3
ET 185	Fluid Power	56	2
RBTC 175	Basic Motor Controls	84	3
RBTC 205	Programmable Logic Controllers	84	3
CSC 102	Window Applications for Technicians	45	3
● Selected Communications Course (Choose one) CMST 101 – Foundations of Communication * (CSS 100 – Career Search Strategies .5 credit) COMM 101 – Communications and Career Strategies ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit)		45	3
Total		398	17

First Year – Summer Session

Course Number	Course Title	Clock Hours	Credits
EO 216	Internship/Capstone Project	300	5
Total		300	5



Second Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
EO 202	Introduction to Electric Industry	84	3
EO 211	Power Generation, Transmission, and Distribution	84	3
ET 110	Plant Blueprints and Drawings	56	2
ET 227	Water Treatment	56	2
● Selected Behavioral Science Course (Choose one) PSYC 100 – Psychology of Human Relations PSYC 101 – General Psychology *		45	3
● Selected Mathematics Course (Choose one) MATH 100 – Applied General Math MATH 101 – Intermediate Algebra MATH 114 – College Algebra *		45	3
Total		370	16

Second Year – Spring Semester

Course Number	Course Title	Clock Hours	Credits
EO 206	Gas Processing	84	3
EO 208	Ethanol Biofuels Production	84	3
EO 212	Boiler Operations and Refrigeration	84	3
EO 214	Instrumentation and Controls Simulations	84	3
ET 215	Plant Operation and Troubleshooting	56	2
● Selected Social Science Course (Choose one) ECON 105 – Leadership in the Global Workplace ECON 201 – Principles of Microeconomics * ECON 202 – Principles of Macroeconomics * SOC 100 – Introduction to Sociology *		45	3
Total		437	17

- Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk (*) can be transferred directly to the university system and may be substituted for recommended courses on the outline. Students should speak with an advisor before doing so.

Students who select to take transferable communications course CMST 101 or ENGL 101, must also register for CSS 100 – Career Search Strategies for .5 credit. This curriculum is required for all Lake Area Tech graduates and is included in the COMM 101 course but is separate from the university system.