

Energy Management Technology Short-Term Certificate 150503 ECT

Available: Shoals Campus
 Advisor: B. Hall (5251) bhall@nwsc.edu
 J. Hackworth (5236/5335) joehackworth@nwsc.edu

The Energy Management certificate is offered to students in Heating and Air Conditioning, Industrial Electricity, and Industrial Electronics and in-field personnel who have a high school diploma or GED. This certificate would enable a student to enhance his/her career potential in the area of energy control and use technology. Students should contact advisor for further information.

Entering students are required to complete ORT 100. Transfer students are exempt from this requirement.

	Semester		Hours
	Theory	Lab	
ECT 241 Introduction to Energy Management	1	6	3
ECT 242 Audit-Accounting Conservation	2	6	3
ECT 243 Basic Energy Management Systems (ELT 231 Programmable Controls I)	2	6	3
ECT 244 Energy Management Systems (ELT 232 Programmable Controls II)	2	6	3
ECT 252 Advanced Energy Management (ELT 222 Advanced Electronics for the Electrician)	2	6	3
ECT 253 Direct Digital Control (ELT 221 Electronics for Electricians I)	2	6	3
ECT 254 Test and Balance Instrumentation (ACR 205 System Sizing and Air Distribution)	2	6	3
Electives			3
Total Semester Credit Hours			24

- Electives:
- FSC 211 Building Construction and Related Codes
 - FSC 270 Fire Protection Systems
 - ACR 115 Heating Systems
 - ACR 123 HVACR Electrical Components
 - ACR 138 Customer Relation in HVAC
 - ACR 143 HVAC Industry Codes
 - ACR 182 Parallel Refrigeration
 - ACR 203 Commercial A/C
 - ACR 204 Commercial Air Conditioning
 - ELT 121 Basic AC/DC Machines
 - ELT 122 Advanced AC and DC Machines
 - ELT 131 Commercial/Industrial Wiring I
 - ELT 211 Motor Control I
 - ELT 212 Motor Control II
 - ELT 233 Applied Programmable Controls

Pre-Engineering Associate in Science Degree 240102 ENG

Available: Phil Campbell and Shoals Campuses
 Advisors: T. Howard (5259) howard@nwsc.edu
 C. Eubanks (5293) eubanks@nwsc.edu

This program is designed for students who plan to transfer to four-year institutions to complete requirements for a degree in Engineering.

Entering students are required to complete ORI 101. Transfer students are exempt from this requirement.

	Semester Hours
Area I: Written Composition	6
***ENG 101 and 102	
Area II: Humanities and Fine Arts	12
*Literature: ENG 271 and 272, ENG 251 and 252 or ENG 261 and 262 ... 6	
SPH 107 3	
Elective: Choose one course from among ART 100, MUS 101, PHL 206*, THR 120, Foreign Language* 3	
Area III: Natural Sciences and Mathematics	12
Science: Choose two core courses from among PHY 213 and 214 8	
Math: MTH 125	
MTH 113, 120, 125, 126, 227, 237, 238 .. 4	
Area IV: History, Social and Behavioral Science	12
*History: HIS 101 and 102 or HIS 201 and 202 6	
Social and Behavioral Sciences: Choose two courses from among ECO 231, ECO 232, GEO 100, POL 211, PSY 200, PSY 210, SOC 200, SOC 210 6	
Area V: Pre-Professional, Pre-Major, and Elective Courses	18-22
Elective courses appropriate to individual student and transfer institutions. PED can be used as a general elective. Choose from CIS 231 or CIS 251, CHM 111, CHM 112, CHM 221, CHM 222 (for CHE), EGR electives, MTH 125, 126, 227, 237, 238	
ECO 232 is the preferred elective in Area IV.	

Total Semester Transfer Hours 60-64

*See note 2 on page 44.

**University requirements may vary. See your advisor for substitution.

***Keyboarding skills are essential for the successful completion of English 101.