

ALTERNATIVE ENERGY TECHNOLOGY - WIND TURBINE MAJOR, ASSOCIATE OF APPLIED SCIENCE

Curriculum Code #6350

(Not offered 2023-2024)

Division of Engineering, Business and Information Technologies (<http://catalog.lorainccc.edu/academic-programs/engineering-business-information-technologies/>)

The wind turbine technology program encompasses a wide range of electrical, mechanical and computer skills required to compete in the emerging alternate energy - wind turbine industry. Individuals will be prepared for a range of analysis, installation and maintenance assignments associated with the wind turbine industry. Typical job responsibilities will include design, testing, R&D, service, maintenance and installation assignments. Lorain County Community College has articulation agreements with colleges and universities including programs offered by Lorain County Community College's University Partnership.

First Year

Fall Semester		Hours
ALET 111	INTRODUCTION TO ALTERNATIVE ENERGY	3
ELCT 111	ELECTRICAL CIRCUITS I	3
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 155	TECHNICAL MATHEMATICS I	4
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ²	1
TECN 111	TECHNICAL PROBLEM SOLVING	3
Hours		17

Spring Semester

AETC 121	PROGRAMMABLE LOGIC CONTROLLERS ¹	3
ALET 112	ALTERNATIVE ENERGY MECHANICAL SYSTEMS ¹	4
HLED 159	WILDERNESS AND REMOTE FIRST AID ¹	2
TECN 121	FLUID POWER	3
ENGL 164	COLLEGE COMPOSITION II WITH TECHNICAL TOPICS ¹	3
MTHM 156	TECHNICAL MATHEMATICS II ¹	4
Hours		19

Second Year

Fall Semester		Hours
ALET 220	WIND TURBINE TECHNOLOGY I ¹	3
ELCT 121	DIGITAL ELECTRONICS ¹	4
ELCT 227	NATIONAL ELECTRIC CODE ^{1,3}	2
PEFT 185	ROPES COURSE	1
PHYC 150	GENERAL PHYSICS I ¹	4
Arts and Humanities Elective ⁴		3
Hours		17

Spring Semester

AETC 241	INSTRUMENTATION AND CONTROL ¹	3
ALET 221	WIND TURBINE TECHNOLOGY II ¹	3
ELCT 211	ELECTRICAL POWER AND DEVICES ¹	4
Social Science Elective ⁵		3
Hours		13
Total Hours		66

1

Indicates that this course requires a prerequisite.

2

A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 13 or more credit hours.

3

Indicates a student may substitute from this list: work-based learning (ALET 287, ALET 288 and/or ALET 289) for the equivalent number of credit hours for this course.

4

Select any Arts and Humanities Ohio Transfer 36 (<http://catalog.lorainccc.edu/academic-information/transfer-module-requirements/>) course.

5

Select any Social Science Ohio Transfer 36 (<http://catalog.lorainccc.edu/academic-information/transfer-module-requirements/>) course.

Program Contact(s):

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For information about admissions, enrollment, transfer, graduation and other general questions, please contact your advising team (<https://www.lorainccc.edu/admissions-and-enrollment/advising-and-counseling/>).

Program Learning Outcomes

1. To function effectively in the wind turbine industry, with a theoretical understanding and direct hands-on experience in the installation and operation of wind turbine power generation systems
2. Be experienced in the installation of several residential scale wind turbine systems, siting of the turbine, rigging for installation, safe practices, regulatory considerations, electrical installation in a variety of off-grid applications and operation and maintenance of utility scale turbines
3. Demonstrate a high standard of professional ethics, attitudes and values
4. Communicate effectively and work collaboratively in teams