

WIND ENERGY TECHNOLOGY

Wind energy is a rapidly growing industry in Nebraska and throughout the nation. Students in the wind energy program will learn the necessary safety skills and engage in higher skill levels needed to work in positions in the wind energy field. Students will develop their basic skills with courses in wind energy fundamentals, basic electricity, wind turbine systems, and continue with motor controls, mechanical systems, blueprint reading, and fluid fundamentals. The second year, students will engage in wind electronics for control systems that interface with programmable logic controllers and Supervisory Control and Data Acquisition (SCADA) systems. Students will understand rigging and climbing safety in and around a wind turbine. Wind turbine siting will be introduced for awareness of economic development compliance. Successful graduates will be prepared for a position in the wind energy industry.

(Enrollment into this program is limited and based on the date of application.)

Required Program of Study for Associate of Applied Science Degree (2 years)

FIRST YEAR

Fall Semester	
Course	Credits
WIND 1015 Principles of Electricity I	3
WIND 1025 Principles of Electricity I Lab	2
WIND 1080 Wind Energy Fundamentals	3
WIND 1035 Wind Industrial Safety	2
WIND 1040 Wind Industrial Safety Lab	3
WIND 1255 Blue Print Reading	2
ENGL 1050 Workplace Communication*	3
	<u>18</u>

Spring Semester	
Course	Credits
WIND 1150 Mechanical Systems I	1
WIND 1165 Mechanical Systems I Lab	3
WIND 2052 Fluid Fundamentals	2
WIND 2062 Fluid Fundamentals Lab	2
WIND 1230 Motor Control	2
WIND 1240 Motor Control Lab	2
MATH 1020 Technical Mathematics I*	3
INFO 1000 Basic Computer Applications*	2
	<u>17</u>

Summer	
Course	Credits
WIND 1300 Cooperative Internship I	6
	<u>6</u>

SECOND YEAR

Fall Semester	
Course	Credits
WIND 2210 Mechanical Systems II	1
WIND 2220 Mechanical Systems II Lab	3
WIND 2040 Programmable Controllers and Communication	2
WIND 2042 Programmable Controllers and Communication Lab	2
WIND 2115 Control Systems	2
WIND 2120 Control Systems Lab	2
MATH 1060 Technical Mathematics II*	3
	<u>15</u>

Spring Semester	
Course	Credits
WIND 2015 Principles of Electricity II	2
WIND 2025 Principles of Electricity II Lab	2
WIND 2285 Power Generation and Distribution	3
WIND 2295 Power Generation and Distribution Lab ...	2
WIND 2095 Airfoils and Composite Repair Lab	2
WIND 2275 Wind Site Development and Operation ...	2
ECON 1010 Personal and Business Finance*	2
PSYC 1000 Human Relations*	2
	<u>17</u>

Total Credit Hours 73

*See general education requirements.