Wind Energy Technology

WIND ENERGY TECHNOLOGY (WET)

Associate of Applied Science

This educational program will produce a qualified workforce of Wind Energy Technicians to serve the emerging wind industry throughout the United States and potentially worldwide. Graduates of the program will possess the necessary skills to secure a position with a modern commercial wind farm operation or an industry career related to the production of electrical energy.

General Education Required Courses		19 cr
Communication Requirement		*6*
CM101 English Composition I (3 cr)		
CM115 Public Speaking (3 cr) or		
CM240 Interpersonal Communication (3 cr)		
Humanities Requirement	*(1of 8 areas required)*	*3*
Art	Humanities	
Music	Literature	
Theatre	Philosophy	
Foreign Language	History	
Mathematics Requirement		*3*
MA110 Intermediate Algebra (3 cr) or		
Mathematics General Education Course		
Natural Science Requirement		*4*
SC107 Meteorology (4 cr)		
Social/Behavioral Science Requirement		*3*
SS101 General Psychology (3 cr)		

Required Courses *		45 cr
CS155 Networking & Computer Technology		3
SC109 Applied Physics		3
WE100 Introduction to Wind Energy		3
WE105 Empoyability Skills, Safety, & Blueprint Reading		3
WE110 Electrical Theory		3
WE120 Hydraulics		3
WE150 Mechanical Systems		3
WE210 Electronics		3
WE225 Motors, Generators, PLC's		3
WE230 Substation & Voltage Regulations		3
WE250 Data Acquisition & Communication		3
WE255 Airfoils and Composite Repair		3
WE260 Wind Turbine Siting or		
WE240 GIS/GPS		3
WE265 Field Training & Project Operations		3
WE270 Transformer Theory		3

Credits Required 64

*All electives should be selected with assistance from an advisor. These options are general areas that will transfer to focused majors. Substitutions must be approved by the department chair.

WET internships are available. Visit with department chair for information.

Contact: Bruce Graham
(785) 243-1435, ext 256
bgraham@cloud.edu

Degree Information: The awarding of an Associate of Applied Science requires a student to complete a minimum of 45 elective credit hours (technical) in addition to the 19 hours of General Education listed above.

Recommended Course Sequence:
First Semester: WE100, WE110, WE150
Second Semester: WE120, WE210, WE225, WE230, WE265
Third Semester: WE255, WE270
Fourth Semester: WE105, WE250, WE260

Requirements:
-Formal application to the Wind Energy program
-Doctor's physical examination documentation

Gainful Employment: The two-year degree, coupled with an optional internship with one of our industry partners, results in a high success rate of wind industry hire for our graduates. The annual pay for a Wind Tech ranges from $45,000 to $60,000. Graduates are usually hired as a Wind Tech I, then easily advance to Wind Tech II and inceased salary the 1st year. A traveling Wind Tech can expect an annual pay range from $60,000 to $72,000.

Industry Recognition: Cloud County Community College (CCCC) is the only college in Kansas approved to offer an Associate of Applied Science degree in Wind Energy Technolgoy (WET). The WET program received the American Wind Energy Asocition (AWEA) Seal of Approval award for Wind Turbine Service Technicians in 2011.

Transfer Institution Guide: A student who is interested in pursuing a baccalaureate degree should consult a CCCC advisor and the transfer guide and catalog of the four-year institution.

cloud county community college
wind energy program

Wind Energy Technology

WIND ENERGY TECHNOLOGY (WET)

Associate of Applied Science

Suggested Semester Guideline

Semester 1				
CM 101	English Composition I		3 credit hours	
MA110	Intermediate Algebra		3 credit hours	
CS 155	Networking and Computer Technology		3 credit hours	
WE 100	Introduction to Wind Energy		3 credit hours	
WE110	Electrical Theory		3 credit hours	
WE150	Mechanical Systems		3 credit hours	
		Total:	18 credit hours	
Semester 2				
WE120	Hydraulics		3 credit hours	
WE210	Electronics		3 credit hours	
WE225	Motors, Generators, & PLCs		3 credit hours	
WE 230	Substation & Voltage Regulation		3 credit hours	
WE265	Field Training & Project Operations		3 credit hours	
		Total:	15 credit hours	
Semester 3				
CM115	Public Speaking or			
	CM240 Interpersonal Communications		3 credit hours	
SC107	Meteorology		4 credit hours	
SC109	Applied Physics		3 credit hours	
WE255	Airfoils and Composite Repair		3 credit hours	
WE270	Transformer Theory		3 credit hours	
		Total:	16 credit hours	
Semester 4				
SS101	General Psychology		3 credit hours	
	Humanities General Education		3 credit hours	
WE105	Employability Skills, Safety, & Blueprint Reading		3 credit hours	
WE250	Data Acquisition and Communications		3 credit hours	
WE260	Wind Turbine Siting or			
	WE240 GIS/GPS		3 credit hours	
		Total:	15 credit hours	64 credit hours

Wind Energy Technology

WIND ENERGY TECHNOLOGY (WET)

33-Hour Certificate

This educational program will produce a qualified workforce of Wind Energy Technicians to serve the emerging wind industry throughout the United States and potentially worldwide. Graduates of the program will possess the necessary skills to secure a position with a modern commercial wind farm operation or an industry career related to the production of electrical energy. A certificate is part of a stackable degree plan where a student who takes the first year of the associate program can get gainful employment based upon receiving a certification in the discipline.

General Education Required Courses		6 cr
Communication Requirement	*3*	
CM101 English Composition I (3 cr)		
Mathematics Requirement	*3*	
MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course		

Required Courses		27 cr
CS155 Networking & Computer Technology	3	
WE100 Introduction to Wind Energy	3	
WE110 Electrical Theory	3	
WE120 Hydraulics	3	
WE150 Mechanical Systems	3	
WE210 Electronics	3	
WE225 Motors, Generators, PLC's	3	
WE230 Substation & Voltage Regulations	3	
WE265 Field Training & Project Operations	3	

Credits Required 33

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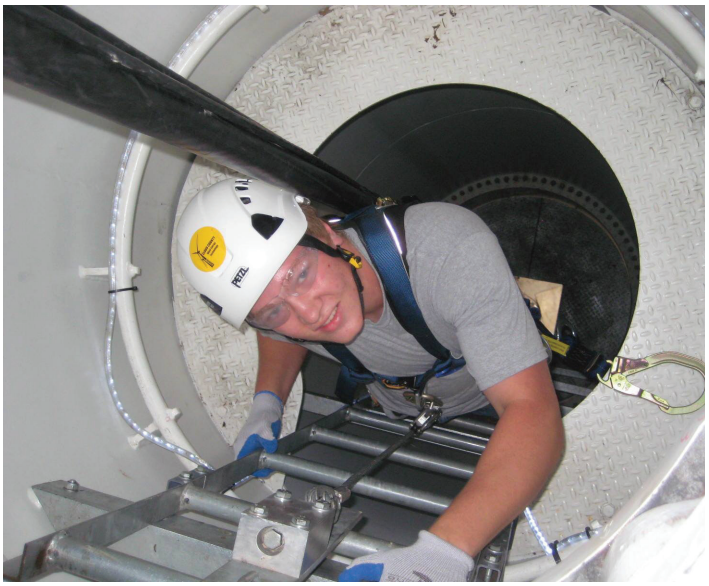

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Degree Information: The awarding of an Associate of Applied Science requires a student to complete a minimum of 45 elective credit hours (technical) in addition to the 19 hours of General Education listed above. Certificates are usually the first two semesters of a sequence listed.

Recommended Course Sequence:
First Semester: WE100, WE110, WE150
Second Semester: WE120, WE210, WE225, WE230, WE265

Requirements:
-Formal application to the Wind Energy program
-Doctor's physical examination documentation

After Cloud: Students can gain immediate, entry-level employment in the Wind Energy Technology field, or if already employed, obtain career advancement opportunities. Students can transfer to a university or college to pursue a bachelor's degree. A logical choice in Kansas would be Kansas State Polytechnic which has a 2 plus 2 agreement with CCCC to obtain a BS in Engineering Technology or Technology Management.

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wind energy program

Wind Energy Technology

WIND ENERGY TECHNOLOGY (WET)

33-Hour Certificate

Suggested Semester Guideline

Semester 1

CM 101	English Composition I		3 credit hours	
MA 110	Intermediate Algebra		3 credit hours	
CS 155	Networking and Computer Technology		3 credit hours	
WE 100	Introduction to Wind Energy		3 credit hours	
WE 110	Electrical Theory		3 credit hours	
WE 150	Mechanical Systems		3 credit hours	
		Total:	18 credit hours	

Semester 2

WE 120	Hydraulics		3 credit hours	
WE 210	Electronics		3 credit hours	
WE 225	Motors, Generators, & PLCs		3 credit hours	
WE 230	Substation & Voltage Regulation		3 credit hours	
WE 265	Field Training & Project Operations		3 credit hours	
		Total:	15 credit hours	33 credit hours

Wind Energy Technology

SUBSTATION TECHNICIAN

33-Hour Certificate

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General Education Required Courses	3 cr
Mathematics Requirement	*3*
MA110 Intermediate Algebra (3 cr) or Mathematics General Education Course	

Required Courses	30 cr
WE105 Empoyability Skills, Safety, & Blueprint Reading	3
WE110 Electrical Theory	3
WE202 Electrical Power Delivery	3
WE210 Electronics	3
WE215 Electrical System Protection & Coordination	3
WE225 Motors, Generators, PLC's	3
WE227 PLC's	3
WE230 Substation & Voltage Regulations	3
WE250 Data Acquisition & Communication	3
WE270 Transformer Theory	3

Credits Required 33

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Degree Information: The awarding of an Associate of Applied Science requires a student to complete a minimum of 45 elective credit hours (technical) in addition to the 19 hours of General Education listed above. Certificates are usually the first two semesters of a sequence listed.

Recommended Course Sequence:
First Semester: WE110, WE202, WE227, WE250, WE270
Second Semester: WE105, WE210, WE215, WE225, WE230, WE265

Requirements:
-Formal application to the Wind Energy program
-Doctor's physical examination documentation

After Cloud: Students can gain immediate, entry-level employment in the Wind Energy Technology field, or if already employed, obtain career advancement opportunities. Students can transfer to a university or college to pursue a bachelor's degree. A logical choice in Kansas would be Kansas State Polytechnic which has a 2 plus 2 agreement with CCCC to obtain a BS in Engineering Technology or Technology Management.

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Wind Energy Technology

SUBSTATION TECHNICIAN

33-Hour Certificate

Suggested Semester Guideline

Semester 1

MA 110	Intermediate Algebra	3 credit hours	
WE 110	Electrical Theory	3 credit hours	
WE 202	Electrical Power Delivery	3 credit hours	
WE 227	PLCs	3 credit hours	
WE 250	Data Acquisition and Communications	3 credit hours	
WE 270	Transformer Theory	3 credit hours	
	Total:	18 credit hours	

Semester 2

WE 105	Employability Skills, Safety, & Blueprint Reading	3 credit hours	
WE 210	Electronics	3 credit hours	
WE 215	Electrical System Protection & Coordination	3 credit hours	
WE 225	Motors, Generators, & PLCs	3 credit hours	
WE 230	Substation & Voltage Regulation	3 credit hours	
	Total:	15 credit hours	33 credit hours

Programs of Study

Wind Energy Technology

BLADE REPAIR

16-Hour Certificate

This educational program will produce a qualified workforce of Wind Energy Technicians to serve the emerging wind industry throughout the United States and potentially worldwide. Graduates of the program will possess the necessary skills to secure a position with a modern commercial wind farm operation or an industry career related to the production of electrical energy. A certificate is part of a stackable degree plan where a student who takes the first year of the associate program can get gainful employment based upon receiving a certification in the discipline. The Blade Repair Certification is typically "additional training" in the area of composites and repairs.

General Education Required Courses		**3 cr**
Communication Requirement	*3*	
CM101 English Composition I (3 cr)		

Required Courses		**13 cr**
WE100 Introduction to Wind Energy	3	
WE255 Airfoils and Composite Repair	3	
WE257 Applied Airfoils	3	
WE262 Blade Repair Operations	4	

Credits Required 16

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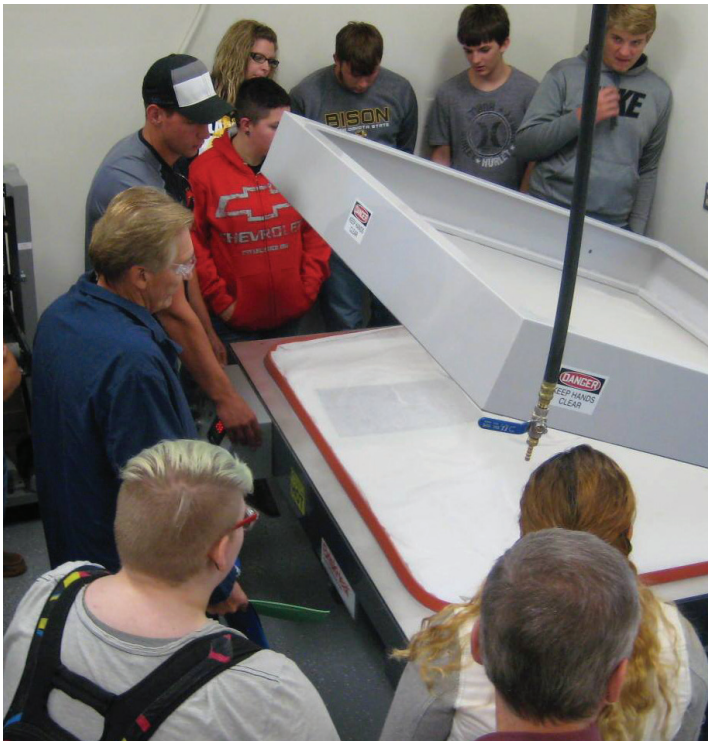

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Degree Information: Certificate options are general areas that will provide employment opportunities in various areas of Wind Energy Technology.

Recommended Course Sequence:
First Semester: WE100, WE255, WE257, WE262

Requirements:
-Formal application to the Wind Energy program
-Doctor's physical examination documentation

After Cloud: Students can gain immediate, entry-level employment in the Wind Energy Technology field, or if already employed, obtain career advancement opportunities. Students can transfer to a university or college to pursue a bachelor's degree. A logical choice in Kansas would be Kansas State Polytechnic which has a 2 plus 2 agreement with CCCC to obtain a BS in Engineering Technology or Technology Management.

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Wind Energy Technology

BLADE REPAIR

16-Hour Certificate

Suggested Semester Guideline

Semester 1

CM 101	English Composition I		3 credit hours
WE 100	Introduction to Wind Energy		3 credit hours
WE 255	Airfoils and Composite Repair		3 credit hours
WE 257	Applied Airfoils		3 credit hours
WE 262	Blade Repair Operations		4 credit hours
		Total:	16 credit hours