

Renewable Energy

33-Hour Certificate Wind Energy Technology



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	General Education substitutions must be approved by the Vice President
Communication Requirement	3	for Academic Affairs.
CM101 English Composition I (3 cr) <i>or</i>		
CM120 Survey of Technical Writing (3 cr)		Program substitutions must be approved by the department chair.
Mathematics Requirement	3	
MA104 Technical Math (3 cr) <i>or</i>		Recommended Course Sequence:
MA110 Intermediate Algebra (3 cr) <i>or</i>		First Semester: WE100, WE110, WE150, MA110,
Mathematics General Education Course		CM101/CM120
		Second Semester: WE120, WE210, WE225, WE265
Required Wind Energy Courses	21 cr	
WE100 Introduction to Wind Energy	3	
WE110 Electrical Theory	3	First Semester:
WE120 Hydraulics	3	
WE150 Mechanical Systems	3	
WE210 Electronics	3	
WE225 Motors, Generators, PLC's	3	
*WE265 Field Training & Project Operations	3	
Elective Courses**	6 cr	Second Semester:
CS140 Introduction to Robotics	3	Second Semester:
CS155 Networking & Computer Technology	3	
SE100 Introduction to Solar Energy	3	
UA100 Introduction to sUAS	3	
UA110 sUAS Ground School	3	
WE230 Substation & Voltage Regulation	3	
WE250 Data Acquisition & Communications	3	
WE255 Airfoils and Composite Repair	3	Anticipated Completion Total Hours
WE280 Wind Energy Technology Internship	1-4	Minimum 33 credit hrs. with minimum GPA 2.0.
Total Credits Re	equired 33	There are many factors to consider when nicking the college and the degree that

** All electives should be selected with assistance from an advisor.

Kansas

DegreeStats

are the best match for you. Explore ksdegreestats.org to learn more about the

specific costs of each undergraduate degree program offered in Kansas, and the

earnings those graduates are making today.

^{*}Must have a physical on file prior to enrolling in this course.

GENERAL EDUCATION COURSES

Catalog year 2023 - 24

COMMUNICATIONS

CM101 English Composition I [placement]

CM102 English Composition II [Comp I]

CM106 Creative Writing (AA/AS only)

CM115 Public Speaking

CM120 Survey of Technical Writing (Cert/AAS/AGS only)

[placement or Transitional English]

CM240 Interpersonal Communications

HUMANITIES

Arts AR100 Art Appreciation

Foreign Language

FL105 French I FL111 Spanish I FL113 German I

History

HI108 Women in American Society

HI120 World History I HI121 World History II HI122 US History I

HI123 US History II

HI124 Introduction to History

Humanities

CM106 Creative Writing HU201 Humanities I [Comp I] HU202 Humanities II [Comp I] JN100 Mass Media in Society

<u>Literature</u>

CM121 Intro to Literature [Comp I] CM122 American Literature I [Comp I] CM123 American Literature II [Comp I] CM124 World Literature [Comp I] CM127 The Short Story [Comp I]

Music

MU100 Music Appreciation MU101 American Music MU102 World Music MU103 History of Rock Music

Philosophy

PH100 Intro to Philosophy

PH105 Ethics

RE104 World Religion

Theatre

CM140 Theater Appreciation

CM148 American Cinema Appreciation

MATHEMATICS

MA104 Technical Math (Cert/AAS only)

MA105 Survey of Math (Cert/AAS only)

MA110 Intermediate Algebra [placement]

(Cert/AAS/AGS only)

MA111 College Algebra [placement]

MA112 Trigonometry [Col Alg or placement]

MA114 Elementary Statistics [placement or College Alg]

MA115 General Calculus [College Algebra]

MATH CON'T.

MA120 Analytical Geom/Calc I [see catalog]
MA121 Analytical Geom/Calc II [Calc I]

MA130 Contemporary Math [placement or Interm Alg]

NATURAL SCIENCES

Biological Science

SC101 General Biology SC110 Principles of Biology I

SC120 Human Anatomy & Physiology I

SC126 Anatomy and Physiology SC151 Principles of Biology II

Physical Science

SC103 Physical Science [Int Alg or placement]

SC104 Geology

SC105 General Astronomy

SC107 Meteorology

SC130 General Chemistry [Elem Alg or placement]

SC131 Chemistry I [Int Alg or placement]

SC137 Natural Hazards & Disasters

SC138 Natural Hazards & Disasters Lab

SC140 College Physics I [see catalog]

SC142 University Physics [co-req Calc I]

SC146 Environmental Science and Conservation

SC147 Environmental Science and Conservation Lab

SOCIAL / BEHAVIORAL SCIENCES

Anthropology

SS125 Intro to Cultural Anthropology

Economics

EC101 Principles of Macroeconomics EC102 Principles of Microeconomics

Geography

GE101 World Geography

Political Science

SS140 US Government – National SS141 US Government – State & Local

SS142 Current Political Issues

SS150 Introduction to International Relations

Psychology

SS101 General Psychology

SS105 Human Growth & Development

Sociology

SS106 Marriage & Family

SS130 Introduction to Sociology

SS131 Cultural Diversity and Ethnicity

SS201 Social Problems

Pre-requisites are listed in []

Students should see the current catalog for specific program requirements.

The Kansas Board of Regents has approved courses for guaranteed transfer among all Kansas public postsecondary institutions. Visit www.kansasregents.org/transfer_articulation for more information.

5/17/23

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