

Renewable Energy 33-Hour Certificate Solar Energy



This educational program will build a qualified workforce for the emerging solar industry as a NABCEP (*North American Board of Certified Energy Practitioners*) Authorized Provider. The continuing fall in solar prices on a global scale has placed solar energy among the cheapest forms of electricity generation on the market. Solar module prices have fallen 100-fold since 1976 with the largest decrease between 2012 and now. Kansas is ideally positioned to capitalize on the falling cost of solar and the need for solar technicians is just being realized. Get on the leading edge of the solar movement in Kansas now. Your bright, sunny future awaits!

General Education Required Courses		6 cr
Communication Requirement	3	
CM115 Public Speaking (3 cr) or		
CM240 Interpersonal Communications (3 cr	.)	
Mathematics Requirement	3	
MA104 Technical Math (3 cr) <i>or</i>		
MA110 Intermediate Algebra (3 cr) <i>or</i>		
Mathematics General Education Course		
Required Solar Energy Courses		21 cr
SE100 Introduction to Solar Energy	3	
SE101 Solar Energy Fundamentals	3	
SE102 Solar Energy Design	3	
SE103 Solar Energy Operations & Maintenance	e 3	
WE105 Employability Skills, Safety,		
& Blueprint Reading	3	
WE110 Electrical Theory	3	
WE250 Data Acquisition & Communications	3	
Elective Courses*		6 cr
BE160 Business Accounting	3	
BE170 Business Statistics	3	
CS108 Computer Applications	3	
CS140 Introduction to Robotics	3	
CS155 Networking and Computer Technology	3	
MG102 Introduction to Entrepreneurship	3	
SC109 Applied Physics	3	
UA100 Introduction to sUAS	3	
UA110 sUAS Ground School	3	
WE100 Introduction to Wind Energy	3	
WE210 Electronics	3	
WE225 Motors, Generators, PLC's	3	
WE230 Substation & Voltage Regulation	3	
WE270 Transformer Theory	3	

Total Credits Required 33

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

General Education substitutions must be approved by the Vice President for Academic Affairs.

Program substitutions must be approved by the department chair.

First Semester:

(Recommended: SE100, SE101, WE110, WE250, MA110)

Second Semester:

(Recommended: SE102, SE103, WE105)

Anticipated Graduation _____ Total Hours _____ Minimum 33 credit hrs. with minimum GPA 2.0.

Kansas DegreeStats There are many factors to consider when picking the college and the degree that 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.

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

<u>Biological Scien</u>ce 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.

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