



Agriculture & Industrial Technology

18-Hour Certificate
Welding



Agriculture includes the principles of animal care, crop and vegetable farming, marketing of farm products, sustainable practices, and large property management. This curriculum is designed to help prepare students to work in the business or production areas of agriculture. The Ag unit provides a hands-on learning lab for students in agriculture. This certificate can be completed in one year or less and can be a starting point for a two-year degree.

Required General Education Courses **3 cr**

- Mathematics Requirement* 3
- MA104 Technical Math (3 cr) *or*
 - Mathematics General Education Course

Elective Courses * **15 cr**

- IE117 OSHA 10-Hour General Industry Training 1
- IE125 Blueprint Reading and Cutting Processes 2
- IE126 Shielded Metal Arc Welding 3
- IE127 Gas Metal Arc Welding 3
- IE128 Flux Core Arc Welding 3
- IE129 Gas Tungsten Arc Welding 3

Total Credits Required 18

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

Program substitutions must be approved by the department chair.

Recommended Course Sequence:

First Semester: IE117, IE125, IE126, IE127 (9 cr)

Second Semester: IE128, IE129, MA104 (9 cr)

Anticipated Completion _____ Total Hours _____
Minimum 18 credit hrs. with minimum GPA 2.0.



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

Literature

- 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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