

MAJORS FOR STUDENTS EXPLORING DEGREES IN NATURAL SCIENCES & AGRICULTURE

Are you interested in the natural sciences or agriculture? Here is a list of available majors at SDBOR institutions.

BLACK HILLS STATE UNIVERSITY

- Biology
- Biology Education
- Chemistry
- Chemistry Education
- Composite Science Education
- Environmental Physical Science
- Physical Science

DAKOTA STATE UNIVERSITY

- Physical Sciences

NORTHERN STATE UNIVERSITY

- Biology
- Biology Education
- Chemistry
- Chemistry Education
- Science
- Environmental Science

SOUTH DAKOTA SCHOOL OF MINES & TECHNOLOGY

- Applied Biological Sciences
- Atmospheric Science
- Chemistry
- Geology

SOUTH DAKOTA STATE UNIVERSITY

- Agricultural Science
- Agronomy
- Animal Science
- Biochemistry
- Biology
- Chemistry
- Dairy Manufacturing
- Dairy Production
- Ecology and Environmental Science
- General Studies
- Geographic Information Sciences
- Geography
- Horticulture
- Landscape Architecture
- Microbiology
- Natural Resource Law Enforcement
- Physics
- Pre-Veterinary Medicine
- Rangeland Ecology & Management
- Wildlife and Fisheries Sciences

THE UNIVERSITY OF SOUTH DAKOTA

- Biology
- Chemistry
- Computer Science
- General Studies
- Biomedical Engineering (Integrated Science)
- Mathematics
- Medical Biology
- Medical Laboratory Science
- Physics
- Sustainability

COURSE RECOMMENDATIONS FOR STUDENTS EXPLORING DEGREES IN NATURAL SCIENCES & AGRICULTURE

Reduce the time to graduation by only taking the courses necessary to complete a degree. Below are a few recommended courses for students exploring careers in the natural sciences or agriculture. These are to be viewed as suggestions; other course options compatible with this track are listed on page 3.

Consult university advisors at the university you plan to attend for appropriate placement based on test scores, high school preparation & potential major.



ENGL 101— Composition I



ENGL 201— Composition II



CMST 101—Fundamentals of Speech



POLS 100—American Government



HIST 151—United States History I

OR



SOC 100—Introduction to Sociology



ENGL 210—Introduction to Literature



ARTH 100—Art Appreciation



MATH 114—College Algebra *(or appropriate course based on placement)* **OR** MATH 281/STAT 281— Introduction to Statistics **OR** MATH 115—Trigonometry **OR** MATH 120—Precalculus *(MATH 115 & 120 are prerequisites for Calculus I, which is required for some programs in the Natural Sciences & Agriculture Track. College Algebra may not be the appropriate option for some programs within this track.)*

In most cases, it is best for high school students to exhaust the math curriculum at their high school before moving on to dual credit math courses.



Natural Sciences sequence, based on area of interest:
(See page 2 for details):

Chemistry

- CHEM 106/L & CHEM 107/L **OR** CHEM 108/L
- CHEM 112/L & CHEM 114/L

Biology:

- BIOL 101/L & BIOL 103/L
- BIOL 151/L & BIOL 153/L











Earth Science:

- ESCI 101/L & ESCI 103/L

Sciences courses should be completed in sequence. Often, students looking to major in science-based majors are better served by taking lab science courses face-to-face in an actual lab, so dual credit may not be the best option for some students.

Depending upon the field and school, the natural science requirements for degree programs may vary. It is recommended that students confirm what courses are needed to complete their desired degree.

These course recommendations fulfill the following general education requirements:

									
Written Communication	Written Communication	Oral Communication	Social Sciences	Social Sciences	Arts & Humanities	Arts & Humanities	Mathematics	Natural Sciences	Natural Sciences

COURSE OPTIONS FOR STUDENTS EXPLORING DEGREES IN NATURAL SCIENCES & AGRICULTURE

Reduce the time to graduation by only taking the courses necessary to complete a degree. Below is a list of possible courses to fulfill general education requirements for students exploring careers in the natural sciences or agriculture.

Consult university advisors at the university you plan to attend for appropriate placement based on test scores, high school preparation & potential major.



Goal #1: Written Communication *(Students must take two courses, including ENGL 101)*

- ENGL 101—Composition I *(If attending SDSMT, only ENGL 101 is needed)*
- ENGL 201—Composition II
- ENGL 283—Introduction to Creative Writing



Goal #2: Oral Communication

- CMST 101—Fundamentals of Speech *(Course not needed if attending SDSMT)*



Goal #3 Social Sciences *(Pick 2 courses from two different disciplines.)*

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| • CJUS 201—Introduction to Criminal Justice | • POLS 100—American Government |
| • ECON 201—Principles of Microeconomics | • POLS 250—World Politics |
| • ECON 202—Principles of Macroeconomics | • POLS 253—Current World Problems |
| • EPSY 210/HDFS 210—Lifespan Development | • PSYC 101—General Psychology |
| • GEOG 210—World Regional Geography | • SOC 100—Introduction to Sociology |
| • HIST 151—United States History I | • SOC 150—Social Problems |
| • HIST 152—United States History II | |



Goal #4: Arts & Humanities *(Pick 2 courses from two different disciplines)*

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|---|-------------------------------------|
| • ART 121—Design I 2D | • PHIL 220—Introduction to Ethics* |
| • ARTH 100—Art Appreciation | • REL 250—World Religions |
| • ARTH 211—History of World Art I | • GFA 101—Introduction to Fine Arts |
| • ARTH 212—History of World Art II | • MUS 100—Music Appreciation |
| • ENGL 210—Introduction to Literature | • THEA 100—Introduction to Theatre |
| • MCOM 151—Intro to Mass Communications | • THEA 201—Film Appreciation |



Goal #5: Mathematics

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| • MATH 114—College Algebra <i>(or appropriate math course based on placement)</i> | • MATH 123—Calculus I |
| • MATH 115—Precalculus | • MATH 125—Calculus II |
| | • MATH 281/STAT 281—Introduction to Statistics |

In most cases, it is best for high school students to exhaust the math curriculum at their high school before moving on to Dual Credit math courses. By gaining basic skills in upper-level high school courses such as calculus/trigonometry, students will be better prepared for the more advanced college coursework they will be required to take.



Goal #6: Natural Sciences *(Students will need at least 6 credits)*

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| • BIOL 101/L—Biology Survey I & Lab | • CHEM 112/L—General Chemistry I & Lab |
| • BIOL 103/L—Biology Survey II & Lab | • CHEM 114/L—General Chemistry II & Lab |
| • BIOL 151/L—General Biology I & Lab | • CHEM 120/L—Elementary Organic Chemistry & Lab |
| • BIOL 153/L—General Biology II & Lab | • ESCI 101/L—Dynamic Earth & Lab |
| • CHEM 106/L—Chemistry Survey & Lab | • ESCI 103/L—Earth and Life Through Time & Lab |
| • CHEM 107/L—Organic & Biochemistry Survey & Lab | • GEOG 131/L—Physical Geography: Weather/Climate & Lab |
| • CHEM 108/L—Organic & Biochemistry Survey & Lab | • GEGO 132/L—Physical Geography: Natural Landscapes/& Lab |

Consulting university advisors is critical for determining which science sequence will be best for your desired major. Sciences courses should be completed in sequence.

Often, students looking to major in science-based majors are better served by taking lab science courses face-to-face in an actual lab, so dual credit may not be the best option for some students.