



# South Dakota Mines

## Pre-Engineering and Computer Science Transfer Guide

The South Dakota School of Mines and Technology is a public university in Rapid City, SD, that prepares students to succeed in science and engineering fields. South Dakota Mines has been ranked one of “America’s Best College Buys” for almost 20 years for our return on investment. Students have consistently earned over a 95% placement rate into their field of study after completing their Bachelor’s degree.

**96%** Placement  
**79%** Internship Experience  
**\$66,516** Avg. Starting Salary

This guide is meant to assist students interested in transferring to South Dakota Mines. There may be other courses that you could take at your community college that will transfer to South Dakota Mines- it is recommended that you contact us throughout your transfer process to ensure your courses will transfer.

### General transfer guidelines:

- Save the syllabi for your courses- they may be required to evaluate your transfer credit.
- You typically need a “C” or higher grade to transfer a course.
- You do not need to complete all the courses listed here before transferring.

### Core Pre-Engineering and Computer Science Courses:

- Calculus I
- Calculus II
- Calculus III
- General Chemistry I + Lab
- English Composition I
- English Composition II
- Public Speaking/Speech
- *\*SD Mines does not accept Interpersonal Communication*
- 6 credits of Social Sciences
- 6 credits of Humanities
- Physics I (Calculus-based)

You may want to consider taking some specialized courses toward your major requirements, in addition to these core courses. Additional potential transfer courses are listed by major in the next column.

### Want to know more?

Research our degrees, apply for admission, or schedule a visit on our website!  
[www.sdsmt.edu](http://www.sdsmt.edu)

### Biomedical Engineering:

- Differential Equations
- General Biology I + Lab
- General Chemistry II + Lab

### Chemical Engineering:

- Differential Equations
- General Chemistry II + Lab
- Physics II (Calculus-based)

### Civil Engineering:

- CADD
- Differential Equations
- General Chemistry II + Lab
- Statics

### Computer Engineering:

- C++ based programming course
- Circuits
- Differential Equations
- Physics II (Calculus-based)

### Computer Science:

- C++ based programming sequence

### Electrical Engineering:

- C++ based programming course
- Circuits
- Differential Equations
- Physics II (Calculus-based)

### Geological Engineering:

- CADD
- General Chemistry II + Lab
- Statics
- Differential Equations
- Physics II (Calculus-based)

### Industrial Engineering & Engineering Management:

- Differential Equations
- Physics II (Calculus-based)
- General Psychology

### Mechanical Engineering:

- C based programming course
- Differential Equations
- Statics
- Dynamics
- Physics II (Calculus-based)

### Metallurgical Engineering:

- General Chemistry II + Lab
- C based programming course
- Differential Equations
- Physics II (Calculus-based)

### Mining Engineering:

- Statics
- Dynamics
- Differential Equations
- Economics (Macro- or Micro-)



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### Core Science, Pre-Med, and Business Courses:

- Calculus I
- Calculus II
- General Chemistry I + Lab  
*\*Mathematics students may take General Chemistry + Lab or General Biology + Lab*
- English Composition I
- English Composition II
- Public Speaking  
*\*SD Mines does not accept Interpersonal Communication*
- 6 credits of Social Sciences
- 6 credits of Humanities

You may want to consider taking some specialized courses toward your major requirements, in addition to these core courses. Additional potential transfer courses are listed by major in the next column.

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### Applied Biological Sciences:

- General Biology I + Lab
- General Biology II + Lab
- General Chemistry II + Lab
- Physics I (Calculus-based)
- Physics II (Calculus-based)

### Atmospheric Sciences:

- Calculus III
- C++ based programming course
- Differential Equations
- General Biology I + Lab
- General Chemistry II + Lab
- Physics I (Calculus-based)
- Physics II (Calculus-based)

### Business Management in Technology:

- One Social Science course should be Microeconomics
- One Humanities course should be Intro to Logic
- Accounting

### Chemistry:

- Differential Equations
- General Chemistry II + Lab
- Physics I (Calculus-based)
- Physics II (Calculus-based)

### Geology:

- Calculus III
- C or C++ based programming course
- Physical Geology
- Physics I (Calculus-based)
- Physics II (Calculus-based)

### Mathematics:

- Calculus III
- C++ based programming course
- Differential Equations
- General Biology I + Lab OR General Chemistry I + Lab
- Physics I (Calculus-based)
- Physics II (Calculus-based)

### Pre-Med:

- Anatomy
- C or C++ based programming course
- General Biology I + Lab
- General Biology II + Lab
- General Chemistry II + Lab

### Physics:

- Calculus III
- C++ based programming course
- Differential Equations
- Physics I (Calculus-based)
- Physics II (Calculus-based)