

## Pre-Engineering and Computer Science Transfer Guide

The South Dakota School of Mines and Technology (SD Mines) is a public university in Rapid City, SD, that prepares students to succeed in science and engineering fields. SD 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.

**97%** Placement  
**77%** Internship Experience  
**\$61,346** Avg. Starting Salary

This guide is meant to assist students interested in transferring to SD Mines. There may be other courses that you could take at your community college that will transfer to SD 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:

- CHE 111 General Chemistry I + Lab
- ENG 121 English Composition I
- ENG 131 Technical Writing I
- ENG 132 Technical Writing II
- MAT 201 Calculus I
- MAT 202 Calculus II
- MAT 203 or MAT 204 Calculus III
- PHY 211 Physics: Calculus Based I
- 6 credits of Social Sciences (GT-SS or HI courses)
- 6 credits of Humanities (GT- AH or HI courses)

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:

- BIO 111 General Biology I + Lab
- CHE 112 General Chemistry II + Lab
- MAT 261 or 265 Differential Equations

### Chemical Engineering:

- CHE 112 General Chemistry II + Lab
- MAT 261 or 265 Differential Equations
- PHY 212 Physics: Calculus Based II

### Civil Engineering:

- CAD 100 or CAD 101
- CHE 112 General Chemistry II + Lab
- EGG 211 Engineering Mechanics I- Statics
- MAT 261 or 265 Differential Equations

### Computer Engineering:

- Circuits
- CSC 160 Computer Science I
- MAT 261 or 265 Differential Equations
- PHY 212 Physics: Calculus Based II

### Computer Science:

- CSC 160 Computer Science I
- CSC 161 Computer Science II

### Electrical Engineering:

- Circuits
- CSC 160 Computer Science I
- MAT 261 or 265 Differential Equations
- PHY 212 Physics: Calculus Based II

### Geological Engineering:

- CAD 100 or CAD 101
- CHE 112 General Chemistry II + Lab
- EGG 211 Engineering Mechanics I- Statics
- MAT 261 or 265 Differential Equations
- PHY 212 Physics: Calculus Based II

### Industrial Engineering & Engineering Management:

- MAT 261 or 265 Differential Equations
- PHY 212 Physics: Calculus Based II
- PSY 101 General Psychology

### Mechanical Engineering:

- CSC 160 Computer Science I
- EGG 211 Engineering Mechanics I- Statics
- EGG 212 Engineering Mechanics II-Dynamics
- MAT 261 or 265 Differential Equations
- PHY 212 Physics: Calculus Based II

### Metallurgical Engineering:

- CHE 112 General Chemistry II + Lab
- CSC 160 Computer Science I
- MAT 261 or 265 Differential Equations
- PHY 212 Physics: Calculus Based II

### Mining Engineering:

- ECO 201 or ECO 202
- EGG 211 Engineering Mechanics I- Statics
- EGG 212 Engineering Mechanics II-Dynamics
- MAT 261 or 265 Differential Equations

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

- CHE 111 General Chemistry I + Lab  
*\*Mathematics students may take General Chemistry + Lab or General Biology + Lab*
- ENG 121 English Composition I
- ENG 131 Technical Writing I
- ENG 132 Technical Writing II
- MAT 201 Calculus I
- MAT 202 Calculus II
- 6 credits of Social Sciences (GT-SS or HI courses)
- 6 credits of Humanities (GT- AH or HI courses)

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:

- BIO 111 General Biology I + Lab
- BIO 112 General Biology II + Lab
- CHE 112 General Chemistry II + Lab
- PHY 211 Physics: Calculus Based I
- PHY 212 Physics: Calculus Based II

### Atmospheric Sciences:

- BIO 111 General Biology I + Lab
- CHE 112 General Chemistry II + Lab
- CSC 160 Computer Science I
- MAT 203 Calculus III
- MAT 261 or 265 Differential Equations
- PHY 211 Physics: Calculus Based I
- PHY 212 Physics: Calculus Based II

### Business Management in Technology:

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

### Chemistry:

- CHE 112 General Chemistry II + Lab
- MAT 261 or 265 Differential Equations
- PHY 211 Physics: Calculus Based I
- PHY 212 Physics: Calculus Based II

### Geology:

- CSC 160 Computer Science I
- GEY 111 Physical Geology
- MAT 203 or MAT 204 Calculus III
- PHY 211 Physics: Calculus Based I
- PHY 212 Physics: Calculus Based II

### Mathematics:

- BIO 111 General Biology I + Lab  
 OR CHE 112 General Chemistry I + Lab
- CSC 160 Computer Science I
- MAT 203 or MAT 204 Calculus III
- MAT 261 or 265 Differential Equations
- PHY 211 Physics: Calculus Based I
- PHY 212 Physics: Calculus Based II

### Pre-Med:

- BIO 111 General Biology I + Lab
- BIO 112 General Biology II + Lab
- BIO 201 and BIO 202
- CHE 112 General Chemistry II + Lab
- CSC 160 Computer Science I

### Physics:

- CSC 160 Computer Science I
- MAT 203 or MAT 204 Calculus III
- MAT 261 or 265 Differential Equations
- PHY 211 Physics: Calculus Based I
- PHY 212 Physics: Calculus Based II