

# Pre-Engineering & Computer Science Transfer Guide

South Dakota School of Mines and Technology is a distinguished public university nestled in Rapid City, SD, dedicated to equipping students for success in science and engineering. For nearly two decades, South Dakota Mines has proudly held the title of "America's Best College Buys," emphasizing our exceptional return on investment. Nearly all of our students find employments in their chosen career field or are accepted to graduate programs upon completion of their degrees.

This guide is designed to support students considering a transfer to South Dakota Mines. There may be additional courses at your community college that align seamlessly with our programs. We strongly recommend staying in touch with us throughout your transfer process to ensure a smooth transition and verify the transferability of your courses. Your journey to success starts here!

## General transfer guidelines:

- Save the syllabi for your courses- they may be required to evaluate your transfer credit.
- You do not need to complete all the courses listed here before transferring.

## Core Pre-Engineering and Computer Science Courses:

- CHE 1111 General Chemistry I + Lab
- ENG 1021 English Composition I
- ENG 1031 Technical Writing I
- MAT 2410 Calculus I
- MAT 2420 Calculus II
- MAT 2431 or MAT 2430 Calculus III
- PHY 2111 Physics: Calculus Based I
- 6 credits of Social Sciences (GT-SS or HIS courses)
- 6 credits of Humanities (GT- AH or HIS 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.

## Biomedical Engineering:

- BIO 1111 General Biology I + Lab
- CHE 1112 General Chemistry II + Lab
- MAT 2561 or 2560 Differential Equations

## Chemical Engineering:

- CHE 1112 General Chemistry II + Lab
- MAT 2561 or 2560 Differential Equations
- PHY 2112 Physics: Calculus Based II

## Civil Engineering:

- CAD 1101 or CAD 1102
- CHE 1112 General Chemistry II + Lab
- EGG 211 Engineering Mechanics I- Statics
- MAT 2561 or 2560 Differential Equations

## Computer Engineering:

- Circuits
- CSC 1060 Computer Science I
- MAT 2561 or 2560 Differential Equations
- PHY 2112 Physics: Calculus Based II

## Computer Science:

- CSC 1060 Computer Science I
- CSC 1061 Computer Science II

## Electrical Engineering:

- Circuits
- CSC 1060 Computer Science I
- MAT 2561 or 2560 Differential Equations
- PHY 2112 Physics: Calculus Based II

## Geological Engineering:

- CAD 1101 or CAD 101
- CHE 1112 General Chemistry II + Lab
- EGG 2011 Engineering Mechanics I- Statics
- MAT 2561 or 2560 Differential Equations
- PHY 2112 Physics: Calculus Based II

## Industrial Engineering & Engineering Management:

- MAT 2561 or 2560 Differential Equations
- PHY 2112 Physics: Calculus Based II
- PSY 101 General Psychology

## Mechanical Engineering:

- CSC 1060 Computer Science I
- EGG 2011 Engineering Mechanics I- Statics
- EGG 2012 Engineering Mechanics II-Dynamics
- MAT 2561 or 2560 Differential Equations
- PHY 2112 Physics: Calculus Based II

## Metallurgical Engineering:

- CHE 1112 General Chemistry II + Lab
- CSC 1060 Computer Science I
- MAT 2561 or 2560 Differential Equations
- PHY 2112 Physics: Calculus Based II

## Mining Engineering:

- ECO 2001 or ECO 2002
- EGG 2011 Engineering Mechanics I- Statics
- EGG 2012 Engineering Mechanics II-Dynamics
- MAT 2561 or 2560 Differential Equations

## Contact us:

transfer@sdsmt.edu  
605.394.2414

## Visit:

sdsmt.edu/visit

## Apply

sdsmt.edu/apply

# Science, Pre-Med & Business Transfer Guide

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## General transfer guidelines:

- Save the syllabi for your courses- they may be required to evaluate your transfer credit.
- You do not need to complete all the courses listed here before transferring.

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

- CHE 1111 General Chemistry I + Lab  
\* *Mathematics students may take General Chemistry + Lab or General Biology + Lab*
- ENG 1021 English Composition I
- ENG 1031 Technical Writing I
- MAT 2410 Calculus I
- MAT 2420 Calculus II
- 6 credits of Social Sciences (GT-SS or HIS courses)
- 6 credits of Humanities (GT- AH or HIS 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.

### Biology:

- BIO 1111 General Biology I + Lab
- BIO 1112 General Biology II + Lab
- CHE 1112 General Chemistry II + Lab
- PHY 2111 Physics: Calculus Based I
- PHY 2112 Physics: Calculus Based II

### Atmospheric Sciences:

- BIO 1111 General Biology I + Lab
- CHE 1112 General Chemistry II + Lab
- CSC 1060 Computer Science I
- MAT 2431 or MAT 2430 Calculus III
- MAT 2561 or 2560 Differential Equations
- PHY 2111 Physics: Calculus Based I
- PHY 2112 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 1112 General Chemistry II + Lab
- MAT 2561 or 2560 Differential Equations
- PHY 2111 Physics: Calculus Based I
- PHY 2112 Physics: Calculus Based II

### Geology:

- CSC 1060 Computer Science I
- GEY 111 Physical Geology
- MAT 2431 or MAT 2430 Calculus III
- PHY 2111 Physics: Calculus Based I
- PHY 2112 Physics: Calculus Based II

### Mathematics:

- BIO 1111 General Biology I + Lab  
OR CHE 1112 General Chemistry I + Lab
- CSC 1060 Computer Science I
- MAT 2431 or MAT 2430 Calculus III
- MAT 2561 or 2560 Differential Equations
- PHY 2111 Physics: Calculus Based I
- PHY 2112 Physics: Calculus Based II

### Pre-Med:

- BIO 1111 General Biology I + Lab
- BIO 1112 General Biology II + Lab
- BIO 2101 and BIO 2102
- CHE 1112 General Chemistry II + Lab
- CSC 1060 Computer Science I

### Physics:

- CSC 1060 Computer Science I
- MAT 2431 or MAT 2430 Calculus III
- MAT 2561 or 2560 Differential Equations
- PHY 2111 Physics: Calculus Based I
- PHY 2112 Physics: Calculus Based II

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