

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:

- MATH 1600 Analytic Geometry and Calculus I
- MATH 2010 Analytic Geometry and Calculus II
- MATH 2020 Analytic Geometry and Calculus III
- CHEM 1140 General Chemistry I + Lab
- ENGL 1010 English Composition I OR ENGL 2070 Technical Communications I
- ENGL 1020 English Composition II OR ENGL 2080 Technical Communications II
- SPCH 1110 Public Speaking
- 6 credits of Social Sciences
- 6 credits of Humanities
- PHYS 2030 General 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.

Biomedical Engineering:

- MATH 2100 Ordinary Differential Equations
- BIOS 1010 General Biology + Lab
- CHEM 1160 General Chemistry II + Lab

Chemical Engineering:

- MATH 2100 Ordinary Differential Equations
- CHEM 1160 General Chemistry II + Lab
- PHYS 2040 General Physics II (Calculus-based)

Civil Engineering:

- ARCH 201 Structural CAD Drafting I
- MATH 2100 Ordinary Differential Equations
- CHEM 1160 General Chemistry II + Lab
- PHYS 2200 Statics

Computer Engineering:

- ENGR 2010 Introduction to Circuits & Electronics
- MATH 2100 Ordinary Differential Equations
- PHYS 2040 General Physics II (Calculus-based)

Computer Science:

- Computer science sequence must be taken through South Dakota Mines CSC 115, 215, 315

Electrical Engineering:

- INFO 2500 Programming in C++
- ENGR 2010 Introduction to Circuits & Electronics
- MATH 2100 Ordinary Differential Equations
- PHYS 2040 General Physics II (Calculus-based)

Geological Engineering:

- ARCH 201 Structural CAD Drafting I
- CHEM 1160 General Chemistry II + Lab
- PHYS 2200 Statics
- MATH 2100 Ordinary Differential Equations
- PHYS 2040 General Physics II (Calculus-based)

Industrial Engineering & Engineering Management:

- MATH 2100 Ordinary Differential Equations
- PHYS 2040 General Physics II (Calculus-based)
- PHYC 1810 Introduction to Psychology

Mechanical Engineering:

- INFO 2500 Programming in C++
- MATH 2100 Ordinary Differential Equations
- PHYS 2200 Statics
- PHYS 2300 Dynamics
- PHYS 2040 General Physics II (Calculus-based)

Metallurgical Engineering:

- CHEM 1160 General Chemistry II + Lab
- INFO 2500 Programming in C++
- MATH 2100 Ordinary Differential Equations
- PHYS 2040 General Physics II (Calculus-based)

Mining Engineering:

- PHYS 2200 Statics
- PHYS 2300 Dynamics
- MATH 2100 Ordinary Differential Equations
- ECON 2110/2120 Principles of Economics (Macro- or Micro-)

Contact us:

transfer@sdsmt.edu
605.394.2414

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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:

- MATH 1600 Analytic Geometry and Calculus I
- MATH 2010 Analytic Geometry and Calculus II
- CHEM 1140 General Chemistry I + Lab
**Mathematics students may take General Chemistry + Lab or General Biology + Lab*
- ENGL 1010 English Composition I OR ENGL 2070 Technical Communications I
- ENGL 1020 English Composition II OR ENGL 2080 Technical Communications II
- SPCH 1100 Public Speaking
- 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.

Biology:

- BIOS 1010 General Biology + Lab
- BIOS 1050 General Botany + Lab
- BIOS 1090 Zoology + Lab
- CHEM 1160 General Chemistry II + Lab
- PHYS 2030 General Physics I (Calculus-based)
- PHYS 2040 General Physics II (Calculus-based)

Atmospheric Sciences:

- MATH 2020 Analytic Geometry and Calculus III
- INFO 2500 Programming in C++
- MATH 2100 Ordinary Differential Equations
- BIOS 1010 General Biology + Lab
- CHEM 1160 General Chemistry II + Lab
- PHYS 2030 General Physics I (Calculus-based)
- PHYS 2040 General Physics II (Calculus-based)

Business Management in Technology:

- ECON 2010 Principles of Microeconomics
- INFO 2100 Excel Spreadsheet Applications
- ACCT 1200 Principles of Accounting

Chemistry:

- MATH 2100 Ordinary Differential Equations
- CHEM 1160 General Chemistry II + Lab
- PHYS 2030 General Physics I (Calculus-based)
- PHYS 2040 General Physics II (Calculus-based)

Geology:

- MATH 2020 Analytic Geometry and Calculus III
- INFO 2500 Programming in C++
- PHYS 2030 General Physics I (Calculus-based)
- PHYS 2040 General Physics II (Calculus-based)

Mathematics:

- MATH 2020 Analytic Geometry and Calculus III
- INFO 2500 Programming in C++
- MATH 2100 Ordinary Differential Equations
- BIOS 1010 General Biology OR
OR CHEM 1140 General Chemistry I + Lab
- PHYS 2030 General Physics I (Calculus-based)
- PHYS 2040 General Physics II (Calculus-based)

Pre-Med:

- BIOS 2250 Introduction to Human Anatomy and Physiology I
- INFO 2500 Programming in C++
- BIOS 1010 General Biology + Lab
- BIOS 1050 General Botany + Lab
- BIOS 1090 Zoology + Lab
- CHEM 1160 General Chemistry II + Lab

Physics:

- MATH 2020 Analytic Geometry and Calculus III
- INFO 2500 Programming in C++
- MATH 2100 Ordinary Differential Equations
- PHYS 2030 General Physics I (Calculus-based)
- PHYS 2040 General Physics II (Calculus-based)

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