

# Western Nebraska Community College

# 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 2150 Analytic Geometry and Calculus II
- •MATH 2200 Analytic Geometry and Calculus III
- •CHEM 1090 General Chemistry I + Lab
- •ENGL 1010 English Composition I
- •ENGL 1020 English Composition II
- •SPCH 1110 Public Speaking
- •6 credits of Social Sciences
- •6 credits of Humanities
- •PHYS 2110/L 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.

# **Admissions Requirements:**

Western Nebraska Community College students with a GPA of 2.75 or higher, completed college algebra or higher receiving a C or higher will be automatically accepted. The application fee will be waived by completing the waiver form at the end of the application.

# **Biomedical Engineering:**

- •BIOS 1010 General Biology + Lab
- •CHEM 1640 General Chemistry II + Lab

# **Chemical Engineering:**

- •CHEM 1640 General Chemistry II + Lab
- •PHYS 2120 General Physics II (Calculus-based)

#### **Civil Engineering:**

- •DRAF-1250 Computer-Aided Drafting & Design
- •CHEM 1640 General Chemistry II + Lab
- •ENGR 2020 Statics

#### **Computer Engineering:**

- •ENGR 2010 Introduction to Circuits & Electronics
- •PHYS 2120 General Physics II (Calculus-based)

# **Computer Science:**

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

#### **Electrical Engineering:**

- •INFO 1210 Introduction to Computer Science
- •ENGR 2010 Introduction to Circuits & Electronics
- •PHYS 2120 General Physics II (Calculus-based)

#### **Geological Engineering:**

- •ARCH 201 Structural CAD Drafting I
- •CHEM 1640 General Chemistry II + Lab
- •ENGR 2020 Statics
- •PHYS 2120 General Physics II (Calculus-based)

### **Industrial Engineering & Engineering Management:**

- •PHYS 2120 General Physics II (Calculus-based)
- •PHYC 1810 Introduction to Psychology

#### **Mechanical Engineering:**

- •INFO 1210 Introduction to Computer Science
- •ENGR 2020 Statics
- •PHYS 2300 Dynamics
- •PHYS 2120 General Physics II (Calculus-based)

# **Metallurgical Engineering:**

- •CHEM 1640 General Chemistry II + Lab
- •INFO 1210 Introduction to Computer Science
- •PHYS 2120 General Physics II (Calculus-based)

#### **Mining Engineering:**

- •ENGR 2020 Statics
- •PHYS 2300 Dynamics
- •ECON 2110/2120 Principles of Economics (Macro- or Micro-)

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:

- MATH 1600 Analytic Geometry and Calculus I
- •MATH 2150 Analytic Geometry and Calculus II
- •CHEM 1090 General Chemistry I + Lab \*Mathematics students may take General Chemistry + Lab or General Biology + Lab
- •ENGL 1010 English Composition I
- ENGL 1020 English Composition 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.

# **Admissions Requirements:**

Western Nebraska Community College students with a GPA of 2.75 or higher, completed college algebra or higher receiving a C or higher will be automatically accepted. The application fee will be waived by completing the waiver form at the end of the application.

#### Biology:

- •BIOS 1010 General Biology + Lab
- •CHEM 1640 General Chemistry II + Lab
- •PHYS 2110 General Physics I (Calculus-based)
- •PHYS 2120 General Physics II (Calculus-based)

#### **Atmospheric Sciences:**

- •MATH 2200 Calculus III
- •INFO 1210 Introduction to Computer Science
- •BIOS 1010 General Biology + Lab
- •CHEM 1640 General Chemistry II + Lab
- •PHYS 2110 General Physics I (Calculus-based)
- •PHYS 2120 General Physics II (Calculus-based)

# **Business Management in Technology:**

- •ECON 2120 Principles of Microeconomics
- •PHIL 1100 Introduction to Critical Thinking
- •ACCT 1200 Principles of Accounting

#### Chemistry:

- •MATH 2210 Applied Differential Equations
- •CHEM 1640 General Chemistry II + Lab
- •PHYS 2110 General Physics I (Calculus-based)
- •PHYS 2120 General Physics II (Calculus-based)

#### Geology:

- •MATH 2200 Calculus III
- •INFO 1210 Introduction to Computer Science
- •PHYS 2030 General Physics I (Calculus-based)
- •PHYS 2120 General Physics II (Calculus-based)

#### **Mathematics:**

- •MATH 2200 Calculus III
- •INFO 1210 Introduction to Computer Science
- •BIOS 1010 General Biology OR
- OR CHEM 1090 General Chemistry I + Lab
- •PHYS 2110 General Physics I (Calculus-based)
- •PHYS 2120 General Physics II (Calculus-based)

# Pre-Med:

- •BIOS 1540/L Introduction to Human Anatomy and Physiology I
- •BIOS 1010 General Biology + Lab
- •CHEM 1640 General Chemistry II + Lab

### **Physics:**

- •MATH 2200 Calculus III
- •INFO 1210 Introduction to Computer Science
- •PHYS 2110 General Physics I (Calculus-based)
- •PHYS 2120 General Physics II (Calculus-based)

Apply