

## Pre-Nanoscience Requirements

In addition to completing the IS core courses and all other university requirements in physical education, humanities, social sciences, and writing/communications, pre-nanoscience students will complete the following required courses:

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### Minimum of 12 Semester Hours of Mathematics/Computer Science Courses, to include:

Math 123	Calculus I
Math 125	Calculus II
Math 225	Calculus III
Math 321	Differential Equations
CSC 150/150L	Computer Science I

### Minimum of 30 Semester Hours of Science Courses, to include:

Biol 151/151L	General Biology I and Lab
Biol 153/153L	General Biology II and Lab
Chem 112/112L	General Chemistry I and Lab
Chem 114/114L	General Chemistry II and Lab
Phys 211	University Physics I
Phys 213/213L	University Physics II and Lab

### Minimum of 12 Semester Hours of Upper Division Science Courses, to include:

Nano 401	Introduction to Nanoscience and Nanoengineering
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### And other nano courses as determined by the student and the nano faculty.

Other upper division biology/chemistry/physics courses as appropriate. Students should investigate the possibility of independent study/undergraduate research with one of the nanoscience/nanoengineering faculty during the junior/senior years.

[Note: Total math, computer science, and natural science semester hours must equal 60.]

### Required Engineering Courses, to include:

EE 303	Basic Circuits
EM 214	Statics (pre-req is Math 125)
EM 321	Mechanics of Materials (pre-req is EM 214)
MET 232	Properties of Materials (pre-reqs are Math 123 and Phys 111 or Phys 211)

### Electives

Students are encouraged to consult the admissions requirements of nanoscience/nanoengineering programs, including the program at SDSM&T, to determine which elective courses will be most useful for entry into a graduate program.

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