GEOLOGICAL SCIENCES

To transfer to BSU as a *sophomore* you will need to have completed the following courses:

- Chemical Principles I and II *(CHEM 141 and 142)*.
- Elements of Calculus I and II *(MATH 141 and 142)* or Single Variable Calculus I and II *(MATH 161 and 162)*
- Geodynamics *(GEOL 225)* - Taken through SACHEM

NOTE The MATH 161/162 sequence is recommended for students planning on applying for graduate, medical, dental of other professional schools.

To transfer to BSU as a *junior*, in addition to the courses above, you will need to have completed the following courses:

- Elements of Physics I and II *(PHYS 181 and 182)* or General Physics I and II *(PHYS 243 and 244)*
- Meteorology *(GEOG 211)*
- Mineralology *(GEOL 260)* - Taken Through SACHEM

MATHEMATICS

BS

To transfer to BSU as a *sophomore* you will need to have completed the following courses:

- Single Variable Calculus I and II *(MATH 161 and 162)*
- Computer Science I *(COMP 151)*
- Natural Science I and II with lab *(preferably CHEM or PHYS)*

To transfer to BSU as a *junior,* in addition to the courses above, you will need to have completed the following courses:

- Multivariable Calculus *(Math 261)*
- Linear Algebra *(MATH 202)*
- Differential Equations *(MATH 316)*

PHYSICS

BS or BA Program

To transfer to BSU as a *sophomore* you will need to have completed the following courses:

- General Physics I and II *(PHYS 243 and 244)* - Calculus based

NOTE Algebra based physics is NOT acceptable – make sure the course you take is calculus based and equivalent to PHYS 243 and 244, not PHYS 181 and 182.

- Single Variable Calculus I & II (MATH 161 and 162)

NOTE Elements of Calculus I and II (MATH 141 and 142) are NOT acceptable. Ensure the course you take is equivalent to MATH 161 and 162.

To transfer to BSU as a *junior*, in addition to the courses above, you will need to have completed the following courses:

- Chemical Principles I and II *(CHEM 141 and 142)*.
- Calculus III and Differential Equations *(MATH 261 and 316)* BS DEGREE ONLY
- If possible, take Modern Physics PHYS401 through SACHEM

A VISION PROJECT INITIATIVE

Advising Guide

For STEM Majors transferring to Bridgewater State University

Bridgewater State University (BSU), in partnership with Bristol Community College, Cape Cod Community College, and Massasoit Community College, will design a seamless pathway for community college transfer students to gain access to university resources that will help them plan for a successful transition and timely degree completion.

BRIDGEWATER STATE UNIVERSITY

PATHWAYS TO A BACCALAURETE DEGREE

In partnership with

BCC BRISTOL COMMUNITY COLLEGE

CAPE COD COMMUNITY COLLEGE

MASSASOIT COMMUNITY COLLEGE

The STEM Transfer Advising Guide was created by the STREAMS Transfer Working Group and the faculty of the Bartlett College of Science and Mathematics with support from an NSF-funded STEP Grant.

If you have questions about the advising guide or transferring to BSU, please contact BSU Transfer Central at Sandra.christoun@bridgew.edu.

Bridgewater State University *and you ...*

Creating pathways for a seamless connection into a four-year degree program

As a student looking to transfer to Bridgewater State University, there are many aspects to consider for a successful transition. Here at BSU, we pride ourselves on being a transfer friendly institution and have many resources available to you before, during and after you transfer.

Resources & Opportunities:

- Dedicated Transfer Center
- Comprehensive Advising & Academic Support Center
- Transfer Pathways Mentorship Program
- Internship Program
- Office of Undergraduate Research
- Office of Study Abroad
- Honors Program

BIOLOGY

Biology BS Program

To transfer to BSU as a *sophomore* you will need to have completed the following courses:

- General Biology I and II *(BIOL 121 and 122)*
- General Chemistry I and II *(CHEM 141 and 142)*
- Elements of Precalculus *(MATH 140)* or Precalculus with Trigonometry *(MATH 150)*

NOTE MATH 150 is recommended for students planning on applying for graduate, medical, dental or other professional schools.

To transfer to BSU as a *junior*, in addition to the courses above, you will need to have completed the following courses:

- Ecology *(BIOL 225)* through SACHEM
- Cell Biology *(BIOL 200)*
- Organic Chemistry I and II *(CHEM 343 and 344)*
- Elements of Calculus I and II *(MATH 141 and 142)* or Single Variable Calculus I and II *(MATH 161 and 162)*

CHEMISTRY

BA - Chemistry Program

To transfer to BSU as a *sophomore* you will need to have completed the following courses:

- Chemical Principles I and II *(CHEM 141 and 142)*
- Elements of Calculus I and II *(MATH 141 and 142)* or Single Variable Calculus I and II *(MATH 161 and 162)*

To transfer to BSU as a *junior*, in addition to the courses above, you will need to have completed the following courses:

- Intermediate Inorganic Chemistry *(CHEM 242)*
- Organic Chemistry I and II *(CHEM 343 and 344)*
- Elements of Physics I and II *(PHYS 181 and 182 – algebra based)* or General Physics I and II *(PHYS 243 and 244 – calculus based)*

BS – Biochemistry Concentration

Same as the Chemistry, BA program *except*

- Replace Intermediate Inorganic Chemistry *(CHEM 242)* with General Biology I (BIOL 121)
- Add Cell Biology *(BIOL 200)* through SACHEM
- Add Genetics *(BIOL 321)*
- Add General Microbiology *(BIOL 395)*

BS – Environmental Chemistry Concentration

Same as the Chemistry, BA program *except*

- Add General Biology I *(BIOL 121)*
- Add Physical Geology (GEOL 100)
- Add one course from the following:
  - General Ecology *(BIOL 225)*
  - Hydrology *(GEOL 240)*
  - Geochemistry *(GEOL 450)*

BS – Professional Chemistry Concentration

To transfer to BSU as a *sophomore* you will need to have completed the following courses:

- Chemical Principles I and II *(CHEM 141 and 142)*
- Single Variable Calculus I and II *(MATH 161 and 162)*

NOTE Elements of Calculus I and II (MATH 141 and 142) are NOT acceptable. Ensure the course you take is equivalent to MATH 161 and 162.

To transfer to BSU as a *junior,* in addition to the courses above, you will need to have completed the following courses:

- Intermediate Inorganic Chemistry *(CHEM 242)*
- Organic Chemistry I and II *(CHEM 343 and 344)*
- General Physics I and II *(PHYS 243 and 244)* - Calculus Based

NOTE Algebra based physics is NOT acceptable – make sure the course you take is calculus based and equivalent to PHYS 243 and 244, not PHYS 181 and 182.

- One additional math class from the following:
  - Elementary Statistics (MATH110)
  - Introduction to Linear Algebra *(MATH 120)*
  - Probability and Statistics *(MATH 200)*
  - Linear Algebra *(MATH 202)*
  - Multivariable Calculus *(MATH 261)*
  - Differential Equation *(MATH 316)* through SACHEM

COMPUTER SCIENCE

BS

To transfer to BSU as a *sophomore* you will need to have completed the following courses:

- Introduction to Computer Science I and II *(COMP 151 and 152)*
- Some natural science lab sequence such as:
  - General Biology I *(BIOL 121)* and General Biology II *(BIOL 122)*
  - Survey of Chemistry I *(CHEM 131)* and Survey of Chemistry II *(CHEM 132)*
  - Chemical Principles I *(CHEM 141)* and Chemical Principles II *(CHEM 142)*
  - Elements of Physics I *(PHYS 181)* and Elements of Physics II *(PHYS 182)*
  - General Physics I *(PHYS 243)* and General Physics II *(PHYS 244)*
- Precalculus with Trigonometry *(MATH 150)* (or place directly into calculus)

To transfer to BSU as a *junior*, in addition to the courses above, you will need to have completed the following courses:

- Intro to Computer Organization *(COMP 206)*
- Data Structures and Algorithms *(COMP 330)*
- Linear Algebra *(MATH 120)*
- Discrete Math *(MATH 130)*
- Single Variable Calculus I and II *(MATH 161 and 162)*