Program Description
Studies in the Science, Technology, Engineering, and Mathematics (STEM) core allows students to develop an interdisciplinary course of study emphasizing the science, technology, engineering, and/or mathematics disciplines. The STEM core is designed to allow students to pursue a general exploration of these disciplines while deepening knowledge through a selected academic focus. For additional information, please visit the https://www.montgomerycollege.edu/academics/programs/general-studies/index.html.

In this core, students will develop an intentional academic plan that reflects personal, academic, and career goals emphasizing the following discipline areas or individual courses:

- Astronomy (ASTR)
- Biology (BIOL)
- Chemistry (CHEM)
- Data Science (DATA)
- Computer Science (CMSC)
- Electrical Engineering (ENEE)
- Engineering Science (ENES)
- Geology (GEOL)
- Mathematics (MATH)
- Meteorology (AOSC)
- Networking (NWIT)
- Nutrition (NUTR)
- Physical Science (PSCI)
- Physics (PHYS)

Students may elect to take any of the following individual courses as part of their STEM core requirements to enhance their selected academic focus; however, transferability of these courses should be carefully reviewed:

- Architecture Technology (ARCH 101)
- Biotechnology (BIOT 110)
- Computer Application (CMAP 120)
- Landscape Technology (LNTP 100)

NOTE: This core may not be appropriate for students intending to transfer to another institution for a life sciences, engineering, or mathematics degree program; students should meet with an advisor before selecting this core.

General Degree Requirements
In order to complete this degree, students must

- complete a minimum of 60 credit hours including:
  - 31 credit hours of General Education program requirements ***
  - 15 credit hours in STEM core courses with a minimum of 3 credit hours at the 200 level
  - up to 11 elective credit hours as needed to complete 60 credit hours

- complete a minimum of 15 credit hours at the 200 level
- have a 2.0 GPA or higher.

Program Outcomes
Upon completion of this program a student will be able to:

- Articulate a plan for their educational and career development that relates their coursework to their goals.
- Identify available resources related to their ongoing educational and professional development.
- Apply critical thinking, quantitative reasoning, and/or scientific reasoning skills by articulating, analyzing, and evaluating problems and scenarios across discipline areas.
- Find, evaluate, use, and synthesize information needed to address increasingly complex problems and scenarios.
- Use technology effectively to accomplish a variety of general and discipline specific activities.
- Communicate effectively in writing and orally appropriately across disciplines.
GENERAL STUDIES AA: STUDIES IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS AREA OF CONCENTRATION (STEM CORE): 611B

Total Credits: 60
Catalog Edition: 2020-2021

- Articulate an academic identity that reflects an integrated, interdisciplinary view of their formal, co-curricular and personal learning.
- Make and articulate the connections within their course of study.
GENERAL STUDIES AA: STUDIES IN SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS
AREA OF CONCENTRATION (STEM CORE): 611B

Suggested Course Sequence
A suggested course sequence for full-time students follows. All students should review this advising guide and consult an advisor.

First Semester
ENGL 101 - Introduction to College Writing 3 semester hours *
Mathematics Foundation 3 semester hours (MATF) ‡
Natural Sciences Distribution with Lab 4 semester hours (NSLD) ††
General Education Institutional Requirement 3 semester hours (GEIR) †
Elective 3 semester hours

Third Semester
Arts Distribution 3 semester hours (ARTD or HUMD)
Behavioral and Social Sciences Distribution 3 semester hours (BSSD) **
STEM Core Course 1 3 semester hours
STEM Core Course 2 3 semester hours
General Education Institutional Requirement 3 semester hours (GEIR) †

Second Semester
English Foundation 3 semester hours (ENGF) ‡
Behavioral and Social Sciences Distribution 3 semester hours (BSSD) **
Humanities Distribution 3 semester hours (HUMD)
Natural Sciences Distribution with or without Lab 3 semester hours (NSD)
Elective 3 semester hours

Fourth Semester
STEM Core Course 3 3 semester hours
STEM Core Course 4 3 semester hours
STEM Core Course 5 3 semester hours
Elective 3 semester hours ‡‡
Elective 2 semester hours ‡‡

Total Credit Hours: 60
* ENGL 101/ENGL 101A, if needed for ENGL 102/ENGL 103, or select an elective.
** Behavioral and social sciences distribution (BSSD) courses must come from different disciplines.
*** Students must complete one global or cultural perspectives designated course as part of their General Education program.
‡ Students should attempt ENGL and MATH foundation requirements within completion of the first 24 credits of college-level work or at the completion of any prerequisite or required non-credit coursework.
‡‡ Any credit hours beyond the minimum General Education credit hours (31) or core courses are counted toward elective credit hours.
† Two General Education institutional requirement (GEIR) courses are required from the following General Education courses: COMM, HLTH, or one ARTD or HUMD. Students may only take one course from ARTD or HUMD to fulfill General Education institutional requirements.
‡‡ Consult a counselor or program advisor for NSND/science course selection. Students potentially interested in science, health or engineer transfer programs should consider a 4-credit lab science course.

NOTE: Exact semester credit counts may vary based on specific course selections.