

# Mathematics

Area of Concentration within the A.S. in STEM  
Frederick Community College Pathway

## Guided Pathway to Success (GPS)

Suggested schedules map your path to degree completion.

**Full-time student:** Follow the green semester blocks in order.

**Part-time student:** Follow the blue course sequence at your own pace.

**Students should meet with an advisor each semester** to carefully select and sequence courses based on their specific academic goals and interests. Visit Jefferson Hall or call 301.846.2471 (301.846.2625 TDD) for advising.

Students who take fewer than 15 credits each semester or who require developmental English or Math coursework will need additional semesters to complete their degrees. Summer and January term classes may help students to make faster progress.

General Education CORE courses can often be taken in any semester. One course must be designated as a Cultural Competence course. A minimum of nine credits must be taken at the 200 level. Refer to the college catalog for course details and the list of General Education and Cultural Competence classes.  
<http://www.frederick.edu/class-schedules.aspx#catalog>

Students are strongly recommended to consult an FCC advisor to select elective courses. Students planning to transfer may also reference ARTSYS, the Maryland Articulation System, [www.artsys.usmd.edu](http://www.artsys.usmd.edu).



Take this course within the first 24 credits.



Milestone course – take within recommend credit range to stay on track for completion.



This course is offered in the fall semester only.



This course is offered in the spring semester only.

## 1 Recommended First Semester

1	Gen Ed CORE	EN 101 English Composition		3 credits
2	Gen Ed CORE	MA 210 Calculus I (Prerequisite MA 111)*		4 credits
3	Gen Ed CORE	Humanities Gen Ed		3 credits
4	PE/Health	PE/Health Requirement		1 credit
5	Concentration	CIS 106 Introduction to Object Design & Programming		3 credits

## 2 Recommended Second Semester

6	Concentration	MA 211 Calculus II		4 credits
7	Gen Ed CORE	Biological & Physical Sciences Gen Ed with a lab (PY 203 Physics I recommended**)		4 credits
8	Gen Ed CORE	Social & Behavioral Sciences Gen Ed		3 credits
9	Concentration	MA 214 Introduction to MATLAB		1 credit
10	Concentration	MA 202 Introduction to Discrete Math or CIS 201 Computer Science I		3 credits

## 3 Recommended Third Semester

11	Concentration	MA 212 Calculus III		4 credits
12	Gen Ed CORE	Communications Gen Ed		3 credits
13	Concentration	MA 218 Linear Algebra		3 credits
14	Gen Ed CORE	Biological & Physical Sciences Gen Ed (PY 204 Physics II recommended)		3/4 credits
15	Gen Ed CORE	Arts Gen Ed		3 credits

## 4 Recommended Fourth Semester

16	Concentration	MA 213 Differential Equations		3 credits
17	Concentration	Choose an elective in consultation with an advisor (depending on transfer school CIS 202 Computer Science II may be recommended)		3/4 credits
18	Gen Ed CORE	Social & Behavioral Sciences Gen Ed in a different discipline from the first		3 credits
19	Concentration	Choose an elective in consultation with an advisor (PY 205 Modern Physics recommended for College Park)		3/4 credits
20	Gen Ed CORE	General Education Elective		3 credits

\* Students who have not taken MA 111 Precalculus should take it as an elective before starting the Calculus sequence.

\*\* Students who have not taken high school physics are strongly recommended to take PY 101 as an elective prior to enrolling in PY 203.

# Mathematics

The course rotation lists FCC's planned offerings by semester, as well as the format in which the course is available (day, evening, and/or online). This is an advising tool to help students anticipate when and how classes are offered. Please reference this document alongside the program pathway, and in consultation with a faculty or staff advisor. Be aware that while FCC will adhere to the rotation as closely as possible, the college cannot guarantee that all classes will be offered in the predicted times and formats. The schedule of courses in a given semester supersedes the rotation in the event of discrepancies.

Course #	Course Name	Summer 2018	Fall 2018	Jan Session 2019	Spring 2019	Summer 2019	Fall 2019	Jan Session 2020	Spring 2020
CIS 106	Object Design & Programming	☀️ 🌙	☀️ 🌙 🖱️		☀️ 🌙 🖱️	☀️ 🌙	☀️ 🌙 🖱️		☀️ 🌙 🖱️
CIS 201	Computer Science I		☀️ 🌙		☀️ 🌙		☀️ 🌙		☀️ 🌙
MA 83	Educator Preparation in Mathematics		☀️ 🖱️		☀️ 🖱️		☀️ 🖱️		☀️ 🖱️
MA 103	Foundations of Mathematics	☀️ 🖱️	☀️ 🌙 🖱️	☀️ 🖱️	☀️ 🖱️	☀️ 🖱️	☀️ 🌙 🖱️	☀️ 🖱️	☀️ 🖱️
MA 103A	Foundations of Mathematics	☀️	☀️ 🌙		🌙	☀️	☀️ 🌙		🌙
MA 105	Fundamental Concepts of Mathematics I		☀️ 🌙		☀️ 🌙		☀️ 🌙		☀️ 🌙
MA 106	Fundamental Concepts of Mathematics II		☀️		☀️ 🌙		☀️		☀️ 🌙
MA 111	Precalculus	☀️ 🌙 🖱️	☀️ 🌙 🖱️		☀️ 🌙 🖱️	☀️ 🌙 🖱️	☀️ 🌙 🖱️		☀️ 🌙 🖱️
MA 130	College Algebra	☀️	☀️ 🌙 🖱️		☀️ 🌙 🖱️	☀️	☀️ 🌙 🖱️		☀️ 🌙 🖱️
MA 130S	College Algebra with Algebra Support	☀️	☀️ 🌙		☀️ 🌙	☀️	☀️ 🌙		☀️ 🌙
MA 201	Applied Calculus		☀️ 🖱️		☀️ 🖱️		☀️ 🖱️		☀️ 🖱️
MA 202	Introduction to Discrete Mathematics				☀️				☀️

☀️ Day Option Available

🌙 Night Option Available

🖱️ Online Option Available

Course #	Course Name	Summer 2018	Fall 2018	Jan Session 2019	Spring 2019	Summer 2019	Fall 2019	Jan Session 2020	Spring 2020
BU/MA 205	Business Statistics	☀	☀ ▶	☀ ▶	☀ ☾ ▶	☀	☀ ▶	☀ ▶	☀ ☾ ▶
MA 206	Elementary Statistics	☀ ☾ ▶	☀ ☾ ▶	☀ ▶	☀ ☾ ▶	☀ ☾ ▶	☀ ☾ ▶	☀ ▶	☀ ☾ ▶
MA 206A	Elementary Statistics with Algebra	☀ ☾	☀ ☾		☀ ☾	☀ ☾	☀ ☾		☀ ☾
MA 207	Elementary Statistics with Probability		☀ ☾		☀ ☾		☀ ☾		☀ ☾
MA 210	Calculus I	☀ ☾ ▶	☀ ☾ ▶		☀ ☾ ▶	☀ ☾ ▶	☀ ☾ ▶		☀ ☾ ▶
MA 211	Calculus II		☀ ☾ ▶		☀ ☾ ▶		☀ ☾ ▶		☀ ☾ ▶
MA 212	Calculus III		☀		☀		☀		☀
MA 213	Differential Equations				☾ ▶				☾ ▶
MA 214	Introduction to MATLAB				▶				▶
MA 218	Linear Algebra		☀				☀		