Engineering

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 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.



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.

0	Recommended	First Semester		
1	Gen Ed Core	ENGL 101 - English Composition	()	3 credits
2	Gen Ed Core	MATH 185 - Calculus I (Prerequisite MATH 165)*	(\)	4 credits
3	Concentration	ENGR 100 - Introduction to Engineering Design (Prerequisite MATH 165)*	/	3 credits
4	Gen Ed Core	Social & Behavioral Sciences Elective (Gen Ed course list)		3 credits
5	Gen Ed Core	Arts Elective (Gen Ed course list)		3 credits
2	Recommended	Second Semester		
6	Gen Ed Core	CHEM 101 - General Chemistry I		4 credits
7	Gen Ed Core	Social & Behavioral Sciences Elective (Gen Ed course list) (in a different discipline from first)		3 credits
8	Concentration	MATH 195 - Calculus II	✓	4 credits
9	Concentration	MATH 220 - MATLAB		1 credit
10	Gen Ed Core	Communications Elective (Gen Ed course list)		3 credits
3	Recommended	Third Semester		
11	Concentration	MATH 275 - Differential Equations	/	3/4 credits
12	Gen Ed Core	PHYS 151 - General Physics I		4 credits
13	Concentration	Choose a STEM elective in consultation with an advisor**		4 credits
14	Concentration	Choose a free elective in consultation with an advisor***		4 credits
4	Recommended	Fourth Semester		
15	Gen Ed Core	Humanities Elective (Gen Ed course list)		3 credits
16	Concentration	Choose a STEM elective in consultation with an advisor**		4 credits
17	PHED/HLTH/NUTR	Physical Education, Health, or Nutrition Requirement		1/3 credits
18	Gen Ed Core	Gen Ed Elective (Gen Ed course list)		3 credits
19	Concentration	Choose a free elective in consultation with an advisor (credits may vary to fulfill 60 credits for degree)***		3 credits

^{*}Students who have not taken MATH 165 Precalculus should take it as an elective in the first semester before starting the Calculus sequence.

^{**} Choose a course from Biology (BSCI), Chemistry (CHEM), Computer & Information Sciences (CMIS), Engineering (ENGR), Mathematics (MATH), or Physics (PHYS). A minimum of 6 credits must be in the same discipline.

^{***}Depending on transfer institution, electives may include ENGR 110 Engineering Statics (fall only), ENGR 212 Engineering Dynamics, ENGR 210 Mechanics of Materials (spring only), MATH 285 Calculus III, PHYS 252 General Physics II, or PHYS 253 General Physics III.