This document is not a substitute for academic advisement.

Approved by The Engineering Program (February 2022)

2022-2023

Degree Map: Mathematics – Dual Degree Engineering (BS)

Mathematics Program

School of Natural Sciences & Mathematics | Stockton University

USC 1 - 240 | 609-652-4546

The following is a **suggested** plan of study for completion of this degree program.

The **goal of a Degree Map** is to ensure that students graduate with no more than 128 credits and in four years.

- All students should speak with their preceptor about their academic programs.
- Students are encouraged to take overload and Summer courses to facilitate their progress towards graduation as necessary.
- Transfer students may not need to take all courses in the plan; they should consult with an academic advisor.
- Additional courses may be required based on selected engineering major and school.

FIRST YEAR - FALL	Credit	FIRST YEAR - SPRING	Credit
Course load	**19**	**Course load**	**19**
FRST 2120 Rhetoric and Comp **Attribute:** W1	**4**	GAH or GSS course **Attribute:** H, I, R, or V **AND** W1 or W2	**4**
GAH or GSS **Attribute:** Freshman Seminar	**4**	CSCI 2101 Programming and Problem Solving	**4**
PHYS 2220/05 Physics I/ Lab **Attribute:** Q1	**6**	PHYS 2230 Physics II/Lab **Attribute:** Q1	**6**
MATH 2215 Calculus I **Attribute:** Q1	**5**	MATH 2216 Calculus II **Attribute:** Q1	**5**

SECOND YEAR - FALL	Credit	SECOND YEAR - SPRING	Credit
Course load	**16**	**Course load**	**19**
GAH or GSS course **Attribute:** H, I, R, or V **AND** W1 or W2	**4**	GAH or GSS course **Attribute:** H, I, R, or V **AND** W1 or W2	**4**
GEN 2180 Engineering Graphics and CAD **Attribute:** A	**4**	CHEM 2110/05 Chemistry I: General Principles w/Lab **Attribute:** Q2	**5**
MATH 2217 Calculus III **Attribute:** Q1	**4**	MATH 3323 Linear Algebra **Attribute:** Q1	**4**
MATH 3325 Foundations of Mathematics **Attribute:** Q1	**4**	MATH 3328 Differential Equations **Attribute:** Q1	**4**
		PHYS 2410 Problem Solving Using MATLAB	**2**

THIRD YEAR - FALL	Credit	THIRD YEAR - SPRING	Credit
Course load	**16-20**	**Course load**	**20**
ECON 1400 Microeconomics **Attribute:** Q2	**4**	GIS course **Attribute:** H, I, R, or V **AND** W1 or W2	**4**
PHYS 2300 Statics	**4**	MGMT 2110 Intro to Management	**4**
MATH 4XXX (Group I) **Attribute:** Q1	**4**	MATH 4XXX (Group II) **Attribute:** Q1	**4**
Program/Cognate course Additional Program/cognate courses based on selected engineering degree/school.	**4-8**	PHYS 3200 Mechanics of Materials (BME, ME, or CE) **OR** PHYS 3120 Circuits (EE. CoE)	**4**
		PHYS 3220 Classical Mechanics	**4**
		ENGN 4600 Engineering Seminar	**0**

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FOURTH YEAR - FALL	Credit	FOURTH YEAR - SPRING	Credit
Course load	**12+**	**Course load**	**12+**
ENGN 4600 Engineering Seminar	**0**	ENGN 4600 Engineering Seminar	**0**
Engineering courses at NJIT, Rowan University or Rutgers's University	**var**	Engineering courses at NJIT, Rowan University or Rutgers's University	**var**
Upper-level math course at NJIT, Rowan U, or Rutgers's U. with approval of Stockton's Math coordinator	**3**	Upper-level math course at NJIT, Rowan U, or Rutgers's U. with approval of Stockton's Math coordinator	**3**

GRADUATION REQUIREMENT TRACKER

G-course	✓
GAH	
GAH	
FRST2120	
GIS	
GSS	
GSS	

Quantitative Reasoning	✓
Q1 (First year)	
Q1/Q2	
Q2	

Writing Requirement	✓
W1 (First year)	
W1/W2	
W1/W2	
W1/W2 (3000 level or higher)	

At-some-distance	✓
ASD	
ASD	
ASD	
ASD	

Attributes	✓
A	
H	
I	
R1	
R2	
V	

Program specific notes

- To declare the Dual Degree Engineering track, you will need to be in one of the following majors: Applied, Physics, Mathematics, or Chemistry. Tracks must be declared early during your first semester freshman year.
- A grade of **"C"** or higher must be earned in all courses. Students must have an overall **3.0 GPA** with at least a **3.0 GPA** in NAMS courses.
- EE: Electrical Engineering, BME Biomedical Engineering; CoE: Computer Engineering, CE: Civil Engineering, ME: Mechanical Engineering, EnvE: Environmental Engineering, BME: Biomedical Engineering

ADDITIONAL INFORMATION

- **FIRST (FRST).** All newly admitted freshmen or transfer students with 15 or fewer credits are required to fulfill the University's first-year competency requirement. The requirement may be met by demonstrating competency on the placement tests, or by passing, with a grade of C or better, all FRST courses: FRST 1101 – College Writing, 1002 – Critical Thinking and Reading, and 1103 – Quantitative Reasoning into which students have been placed. Students enrolled in FRST 1100 – Developmental Mathematics must receive a grade of C or better, and then enroll in and receive a grade of C or better in FRST 1103 to demonstrate competency. Full-time students must register for all required FRST courses in their first semester. Depending on time to completion of competency requirements, some students may need additional time for degree completion. *Note*- certain FRST courses also meet the requirements of the General Studies course distribution categories.
- **General Studies.** B.S. students must complete 40 credits of General Studies with the distribution requirement of: 8 GAH, 4 GEN, 4 GIS, 8 GSS and 16 ASD (At Some Distance). See 2022-2023 Bulletin for more information.
- **W1/W2- Writing requirement.** Students are required to complete (C or better) four Writing intensive (WI/W2) courses. One W1 is required in the first year and an additional three W1 or W2 with one in the upper-level division (3000-level or higher). W1/W2 courses can be found in General Studies or Program/cognate courses depending on major.

- **Q1/Q2- Quantitative Reasoning.** Students are required to complete (D- or better) three Q1/Q2 courses. One Q1 in the first year and at least one Q2. Q1/Q2 courses may be found in General Studies or Program/cognate course depending on major.
- **R1/R2- Race and Racism.** Students are required to pass one R1 and another R1/R2 courses. R1 (C or better), R2 (D or better). R1/R2 courses may be found in General Studies or Program/cognate courses depending on major.
- **Minor program.** Students may select a Minor program of study, in consultation with their preceptor. Minor courses would replace some of the ASD or Program/cognate courses in the Degree Map.
- **Attributes (AHVI/Q, W and R).** A course may fulfill multiple attributes and/or other requirements. Therefore, many attributes can be fulfilled without taking additional courses. Attributes can be taken in any order except for the first-year requirements. Many course choices are available to fulfill an attribute.