This document is not a substitute for academic advisement.

Approved by The Mathematics Program (February 2022)

Degree Map: Mathematics (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.

FIRST YEAR - FALL	Credit	FIRST YEAR - SPRING	Credit
Course load	**15-19**	**Course load**	**15-19**
FRST or G-course **Attribute:** First Year Seminar **Optional Attributes:** W, A, H, I, R, and/or V	**4**	FRST or G-course **Optional Attributes:** W, A, H, I, R, and/or V	**4**
FRST or G-course (Optional) **Attribute:** W1 **Optional Attributes:** A, H, I, R, and/or V	**4**	ASD (Optional) **Optional Attributes:** W, A, H, I, R, and/or V	**4**
MATH 2215 Calculus I **Attribute:** Q1	**5**	MATH 2216 Calculus II **Attribute:** Q1	**5**
PHYS 2220/25 Physics I w/lab **Attribute:** Q1	**6**	PHYS 2230/35 Physics II w/lab **Attribute:** Q1	**6**

SECOND YEAR - FALL	Credit	SECOND YEAR - SPRING	Credit
Course load	**18**	**Course load**	**17**
G-course **Optional Attributes:** W, A, H, I, R, and/or V	**4**	G-course **Optional Attributes:** W, A, H, I, R, and/or V	**4**
ASD **Optional Attributes:** W, A, H, I, R, and/or V	**4**	CSCI 2101 Programming and Problem Solving **Attribute:** Q1	**4**
MATH 2217 Calculus III **Attribute:** Q1	**5**	MATH 3323 Linear Algebra **Attribute:** Q1	**4**
MATH 3325 Foundations of Math **Attribute:** Q1	**4**	MATH 3328 Differential Equations **Attribute:** Q1	**4**
MATH 4600 Mathematics Seminar	**1**	MATH 4600 Mathematics Seminar	**1**

THIRD YEAR - FALL	Credit	THIRD YEAR - SPRING	Credit
Course load	**16**	**Course load**	**16**
GIS-course **Optional Attributes:** W, A, H, I, R, and/or V	**4**	G-course **Optional Attributes:** W, A, H, I, R, and/or V	**4**
Subject: ASD **Optional Attributes:** W, A, H, I, R, and/or V	**4**	Program/Cognate course (consult with preceptor or program chair)	**4**
MATH 4XXX-group I[1]	**4**	MATH 4XXX-group II[2]	**4**
MATH 4XXX-group I or II [1, 2]	**4**	MATH 4XXX-group I or II[1, 2]	**4**

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FOURTH YEAR - FALL	Credit	FOURTH YEAR - SPRING	Credit
Course load	**12-16**	**Course load**	**12-16**
ASD **Optional Attributes:** W, A, H, I, R, and/or V	**4**	**Subject:** G-course **Optional Attributes:** W, A, H, I, R, and/or V	**4**
Program/cognate course (consult with preceptor or program chair)	**4**	Program/cognate course (consult with preceptor or program chair)	**4**
Program/cognate course (consult with preceptor or program chair)	**4**	Program/cognate course (consult with preceptor or program chair)	**4**
[Optional: if not taken at the first year] G-course Optional Attributes: W, A, H, I, R, and /or V	**4**	[Optional: if not taken at the first year] G-course Optional Attributes: W, A, H, I, R, and /or V	**4**

GRADUATION REQUIREMENT TRACKER

G-course	✓
GAH	
GAH	
GEN	
GIS	
GNM	
GNM	
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

- Students must earn a **"C"** or higher in core courses shaded above.
- At least an overall 2.0 GPA in MATH-acronym courses is required. For the purposes of this Program requirement, if a MATH-acronym course is taken more than once, only the highest grade earned will be used. An overall GPA of 2.0 is required for all NAMS courses.
- Transfer students should note that transfer credits for non-calculus-based statistics courses, although accepted by the University, will not count as Program/Cognate credits toward a Mathematics degree.
- Graduating seniors are required to complete a content-based field test in the last semester. Graduation is not dependent on the test score.
- There are more sections of PHYS 2220/25 Physics I w/lab (**Attribute:** Q1) offered in the Fall semester than Spring. More sections of PHYS 2230/35 Physics II w/lab are offered in Spring semester than the Fall.
- Most of the following courses are offered once a year:
    - **Fall semester only**: MATH 4441 Abstract Algebra (**Attribute:** Q1), MATH 4445 Topics in Geometry (**Attribute:** Q1), MATH 4451 Probability and Statistics I (**Attribute:** Q1), and MATH 4461 Numerical Analysis (**Attribute:** Q1).
    - **Spring semester only:** MATH 4431 Real Analysis, MATH 4432 Complex Analysis (**Attribute:** Q1), and MATH 4452 Probably and Statistics II (**Attribute:** Q1).
    - **Offered in the Spring semester on as needed basis:** MATH 4471 Computer Algorithms (**Attribute:** Q1), MATH 4472 Theory of Computation (**Attribute:** Q1), and MATH 4481 Topics in Mathematics (**Attribute:** Q1), are Depending on the course content, MATH 4481 may belong to Group I or II. Please check with the instructor before you enroll in the course regarding the Group designation.
- [1]**Group I** (**Attribute:** Q1): MATH 4431 Real Analysis; MATH 4432 Complex Analysis; MATH 4441 Abstract Algebra; MATH 4445 Topics in Geometry; MATH 4481 Topics in Mathematics.

- [2]**Group II** (**Attribute:** Q1)**:** MATH 4451 Probability & Statistics I; MATH 4452 Probability & Statistics II; MATH 4461 Numerical Analysis; MATH 4471 Computer Algorithms; MATH 4472 Theory of Computation; MATH 4481 Topics in Math; MATH 4491 Partial Differential Equations.
- Consult with preceptor before taking statistics courses that do not have MATH acronym. Non-calculus-based statistics courses will not count as Program/Cognate courses toward a Mathematics degree.

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 48 credits of General Studies with the distribution requirement of: 8 GAH, 4 GEN, 4 GIS, 8 GNM, 8 GSS and 16 ASD (At Some Distance). See 2022-2023 Bulletin for more information. B.A. students must complete 64 credits of General Studies with the distribution requirement of: 8 GAH, 4 GEN, 4 GIS, 8 GNM, 8 GSS and 32 ASD.
- **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 course. 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.
- **Transfer students.** Transfer students must take 25% of their remaining credits in General Studies with a GIS course required (The 25% Rule). Depending on transferred courses, individual attribute requirements may be met (AHVI/Q, W and R) but will be evaluated on transfer. For students transferring 64 credits or more, the General Studies course requirement is lowered to 16 credits (i.e. only four G courses are required, but all students must take 4 credits in the GIS category, the other three G courses can be any combination of the G course categories). Up to two W1 and two Q1 courses can be transferred, all W2 and Q2 courses need to be taken at Stockton. Up to one R1 or R2 can be transferred. Consult with an academic advisor for careful guidance.
- **Second degree.** Students with an earned degree will be exempt from all general studies course requirements (i.e. G courses, ASD) and AHVI/Q, W and R attributes.