2023-2024 Degree Map: B.S. Biology – Pre-Professional Studies School of Natural Sciences and Mathematics | Stockton University USC1 – 240 | (609) 652-4546

This is a <u>suggested</u> plan of study for completion of this degree program. The **goal** of a Degree Map is to ensure that students graduate with no greater than 128 credits and in four years.

- All students should speak with their preceptor about their academic programs. Students are advised to reference their Degree Works for information about their program's At-Some-Distance and Cognate courses.
- Transfer students may not need to take all courses in the plan; they should consult with an academic advisor.

FIRST YEAR – FALL SEMESTER	
BIOL 1200/1205 Cells & Molecules w/lab	5 credits
CHEM 2110/2115 Chemistry I: General Principles w/lab	5 114
Attribute: Q2	5 credits
MATH 1100 Precalculus ¹	4 credits
Attribute: Q1	
FRST or G-course	
Attribute: First Year Seminar	4 credits
Optional Attributes: W, A, H, I, R, and/or V	
Total Course Load as of First Year Fall Semester	18 credits

FIRST YEAR – SPRING SEMESTER	
BIOL 1400/1405 Biodiversity & Evolution w/lab	5 credits
CHEM 2140 Chemistry IV: Theory and Application ²	4 credits
Attribute: Q2	
FRST, ASD, or G-course	4 credits
Attribute: W1/W2	
Optional Attributes: A, H, I, R, and/or V	
FRST, ASD, or G-course	4 credits
Optional Attributes: W, A, H, I, R, and/or V	
First Year Credit Total Overall	35 credits

SECOND YEAR – FALL SEMESTER	
CHEM 2120/2125 Chemistry II: Organic Structure w/lab ²	5 credits
CSIS or CIST 1206 Statistics	4 credits
Attribute: Q1	
ASD or G-course	4 credits
Optional Attributes: W, A, H, I, R, and/or V	
ASD or G-course	4 credits
Optional Attributes: W, A, H, I, R, and/or V	
Total Course Load as of Second Year Fall Semester	52 credits

2023-2024 Degree Map: B.S. Biology – Pre-Professional Studies School of Natural Sciences and Mathematics | Stockton University USC1 – 240 | (609) 652-4546

SECOND YEAR – SPRING SEMESTER	
CHEM 2130 Chemistry III: Organic Reactions ²	4 credits
BIOL 2110/2115 Genetics w/lab	4 and its
Attribute: Q2	4 credits
BIOL 2600 Scientific Literacy ³	1 credits
ASD or G-course	4 anadita
Optional Attributes: W, A, H, I, R, and/or V	4 credits
Second Year Credit Total Overall	65 credits

THIRD YEAR – FALL SEMESTER	
PHYS 2110/2115 Physics for Life Sciences I w/lab OR PHYS 2220/25 Physics I ⁴ Attribute: Q1	5-6 credits
BIOL 4600 Biology Seminar ⁵	1 credit
SOCY 1100 Introduction to Sociology Attribute I OR PSYC 1100 Introduction to Psychology ⁶	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
Total Course Load as of Third Year Fall Semester	79-80 credits

THIRD YEAR – SPRING SEMESTER	
PHYS 2120/2125 Physics for Life Sciences II w/lab OR PHYS 2230/35 Physics II ⁴ Attribute: Q1	5-6 credits
CHEM 3250 Biochemistry ⁷	4 credits
SOCY 1100 Introduction to Sociology Attribute I OR PSYC 1100 Introduction to Psychology ⁶	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
Third Year Credit Total Overall	96-98 credits

2023-2024 Degree Map: B.S. Biology – Pre-Professional Studies School of Natural Sciences and Mathematics | Stockton University USC1 – 240 | (609) 652-4546

FOURTH YEAR – FALL SEMESTER	
BIOL 3170 Microbiology [recommended] OR BIOL 3XXX-4XXX	4 credits
BIOL or other NAMS elective ^{8,9,10}	4 credits
Ecology (Plants) course ¹¹	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
Total Course Load as of Fourth Year Fall Semester	112-114 credits

FOURTH YEAR – SPRING SEMESTER	
BIOL or other NAMS elective ^{8,9,10}	4 credits
BIOL or other NAMS elective ^{8,9,10}	4 credits
BIOL or other NAMS elective ^{8,9,10}	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
Fourth Year Credit Total Overall	128-130
	credits

Program Specific Notes

- *Credit for BIOL 1200/05, 1400/05, 2600, and 2110/2115 **[Q2]** may only be earned with a C grade or higher. Students must have a minimum overall 2.0 GPA for all NAMS courses. No biology core or cognate course may be taken P/NC and be counted toward any degree track in biology.
- 2. Dependent on first-year math competency placement. MATH 1100 Precalculus [Q1] is a prerequisite for BIOL 2110/2115 Genetics [Q2] Since CHEM I [Q2] and IV [Q2] are 'General Chemistry' and CHEM II and III are 'Organic Chemistry', students may proceed to either CHEM II or IV after taking CHEM I with lab.
- 3. Recommended in the Spring term of the second year.
- 4. MATH 2215 Calculus I [Q1] is a required prerequisite for PHYS 2220/25 Physics I [Q1] (may be taken concurrently). MATH 2216 Calculus II [Q1] is a required prerequisite for PHYS 2230/35 Physics I [Q1] (may be taken concurrently).
- 5. Recommended in the third year but may be taken in the second or fourth year.
- 6. PSYC 1100 Introduction to Psychology and SOCY 1100 Introduction to Sociology [I] are strongly recommended in preparation for the MCAT.
- 7. Biochemistry is the second highest-tested natural science subject found on the MCAT exam, just after biology. It is therefore critical for success on the MCAT.
- 8. Courses may be from: BCMB, BIOL, CHEM, CPLS, ENVL, GEOL, MARS, MATH, PHYS, SUST, or other courses approved by preceptor.
- 9. **Upper-Level biology requirement.** Biology majors must take at least 12 credits of upper-level biology (BIOL 3000-4999) at Stockton. Since CHEM 3250 Biochemistry and BIOL 3170 Microbiology count towards this requirement, students who take both of those courses

2023-2024 Degree Map: B.S. Biology – Pre-Professional Studies School of Natural Sciences and Mathematics | Stockton University USC1 – 240 | (609) 652-4546

need only 4 more upper-level biology credits. This requirement could potentially be fulfilled by the same course that satisfies the Ecology (Plants) requirement (see below). Independent studies may not be used for this requirement. Non-BIOL courses that are allowed to meet this requirement include: GEOL 3242, PHYS 3030, SUST 3450, MARS 3300, 3340, 3105 [Q1], 3106 [Q1], 3333, 3306, 3416, 3489, and ENVL 3423, 3426, 3121, 3136, 3413, 3433.

- 10. BIOL 4800/4900 BIOL Senior Project (independent study) with poster session optional but strongly encouraged. Required to be considered for program distinction.
- 11. **Ecology (Plants) requirement.** Among their chosen science electives, students must take at least ONE course that focuses on ecology and/or plants. Courses that will fulfill this requirement include (but are not necessarily limited to) the following: BIOL 2100 [Q2], or 2120 or 2126 or 3180 or 3184 or 3365 or 3370 or 3414 or 3416 or 3417 or 3419 or 3440 or 3465 or 3416 or 3450 or 3465 or 3370 or ENVL 2200 or 3414 or 3416 or 3419 or MARS 3335 [W2] or 3336 or 3416 or SUST 3440 or 3450. Many of the courses on this list will also satisfy the upper-level requirement (see above).