

As of February 8, 2023

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

⁷This 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 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	
MATH 1100 Precalculus ¹ Attribute: Q1	4 credits
BIOL 1200/1205 Cells & Molecules w/lab	5 credits
FRST or G-course Attribute: First Year Seminar Optional Attributes: A, H, I, R, and/or V	4 credits
FRST, ASD, or G-course Attribute: W1 Optional Attributes: A, H, I, R, and/or V	4 credits
Total Course Load as of First Year Fall Semester	17 credits

FIRST YEAR – SPRING SEMESTER	
BIOL 1400/1405 Biodiversity & Evolution w/lab	5 credits
CHEM 2110/2115 Chemistry I: General Principles w/lab Attribute: Q2	5 credits
FRST, ASD, or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
First Year Credit Total Overall	31 credits

SECOND YEAR – FALL SEMESTER	
CHEM 2120/2125 Chemistry II: Organic Structure w/lab ²	5 credits
BIOL or other NAMS elective ^{3,4}	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
Total Course Load as of Second Year Fall Semester	48 credits

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SECOND YEAR – SPRING SEMESTER	
BIOL 2110/2115 Genetics w/lab Attribute: Q2	4 credits
BIOL 2600 Scientific Literacy ⁵	1 credit
BIOL or other NAMS elective ^{3,4}	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	4 credits
ASD or G-course 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 [Fall and Spring] ⁶ Attribute: Q1	5-6 credits
CHEM elective ⁷	4 credits
BIOL 4600 Biology Seminar ⁸	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	82-83 credits

THIRD YEAR – SPRING SEMESTER	
PHYS 2120/2125 Physics for Life Sciences II w/lab OR PHYS 2230/35 Physics II [Fall and Spring] ⁶ Attribute: Q1	5-6 credits
Upper-level biology elective ⁹	1 credit
BIOL or other NAMS elective ^{3,4}	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

FOURTH YEAR – FALL SEMESTER	
Biotechnology elective ¹⁰	4 credits
BIOL or other NAMS elective ^{3,4,11}	4 credits
BIOL or other NAMS elective ^{3,4,11}	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

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FOURTH YEAR – SPRING SEMESTER	
Upper-level biology elective ⁹	4 credits
BIOL or other NAMS elective ^{3,4,11}	4 credits
ASD or G-course Optional Attributes: W, A, H, I, R, and/or V	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.

1. Dependent on first-year math competency placement. MATH 1100 Precalculus [Q1] is a prerequisite for BIOL 2110/2115 Genetics [Q2].
2. At Stockton, Chemistry I and IV are 'General Chemistry' while CHEM II and CHEM III are 'Organic Chemistry', thereby students may proceed to CHEM II or CHEM IV after taking CHEM I with lab.
3. Courses may be from: BCMB, BIOL, CHEM, CPLS, ENVL, GEOL, MARS, MATH, PHYS, SUST, or other courses approved by preceptor.
4. **Ecology (Plants) requirement.** Among their chosen science electives, students must take at least ONE course that focuses on ecology and/or plants. This course can also be used to satisfy part of the upper-level requirement (if 3000-level or higher; see below). 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 [Holistic Health IMHL] 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.
5. Recommended in the Spring term of the second year.
6. Instead of a physics course, students may take one of the following three chemistry courses: CHEM 2130 Chemistry III, CHEM 2140 Chemistry IV [Q2], or CHEM/BIOL 3250 Biochemistry. Since these chemistry courses are 4 credits rather than 5 credits, students opting for chemistry instead of physics may need to make up 1 or 2 science credits. 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).
7. Must be CHEM 2130 Chemistry III, CHEM 2140 Chemistry IV [Q2], or CHEM/BIOL 3250 Biochemistry.
8. Recommended in the third year but may be taken in the second or fourth year.

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9. **Upper-Level Biology requirement.** Students must take at least 12 credits of upper-level biology (BIOL 3000-4999) at Stockton. The chosen biotechnology elective course (see below) will count towards this requirement. No transfer work is allowed for this requirement. Independent studies may not be used for this requirement. Non-BIOL courses that are allowed to meet this requirement include: CHEM 3250, GEOL 3242, PHYS 3030 [Behavioral Neuroscience IMBN], SUST 3450, MARS 3300, 3340, 3105 [Q1], 3106 [Q1], 3333, 3306, 3416, 3489, and ENVL 3423, 3426, 3121, 3136, 3413, 3433.
10. **Biotechnology elective.** Choices include BIOL 4210 Molecular Genetics, BIOL 4211 Molecular Evolution, BIOL 4215 Biotechnology, or CHEM 3350 Biochemistry Lab Methods.
11. BIOL 4800/4900 BIOL Senior Project (2-4 credits) with poster session optional but strongly encouraged.