

As of February 8, 2023

2023-2024 Degree Map: B.A. Applied Physics
School of Natural Sciences & Mathematics | Stockton University
USC1 – 240 | (609) 652-4546

This 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	
PHYS 2220/25 Physics I w/lab ^{1,2} Attribute: Q1	6 credits
MATH 2215 Calculus I Attribute: Q1	5 credits
Subject: FRST or G-course Attribute: FY Seminar	4 credits
[Optional] ASD or G-course Optional Attributes: W1 and A, H, I, R, and/or V	4 credits
Total Course Load as of First Year Fall Semester	19 credits

FIRST YEAR – SPRING SEMESTER	
PHYS 2230 Physics II w/lab ^{1,2} Attribute: Q1	6 credits
MATH 2216 Calculus II Attribute: Q1	5 credits
[Optional] ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
Subject: ASD or G-course Attribute: A, H, I, R, and/or V	4 credits
First Year Credit Total Overall	34-39 credits

SECOND YEAR – FALL SEMESTER	
PHYS 3010 Physics III ¹ [Fall only course] Attribute: Q1	4 credits
MATH 2217 Calculus III Attribute: Q1	5 credits
Subject: G-course Attribute: A, H, I, R, and/or V	4 credits
Subject: ASD or G-course Attribute: A, H, I, R, and/or V	4 credits
Total Course Load as of Second Year Fall Semester	51-55 credits

As of February 8, 2023

2023-2024 Degree Map: B.A. Applied Physics
School of Natural Sciences & Mathematics | Stockton University
USC1 – 240 | (609) 652-4546

SECOND YEAR – SPRING SEMESTER	
PHYS 3345 Math Methods for Engineering & Science Attribute: Q1	4 credits
PHYS 3### ³	4 credits
Cognate Course ⁴	4 credits
Subject: G-course or ASD Attribute: A, H, I, R, and/or V	4 credits
PHYS 2600 Physics Colloquium ⁵	0 credits
PHYS 4620 Research Methods ⁵	0 credits
Second Year Credit Total Overall	67-71 credits

THIRD YEAR – FALL SEMESTER	
ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
PHYS 3### ³	4 credits
Cognate Course ⁴	4 credits
PHYS 2600 Physics Colloquium ⁵	0 credits
PHYS 4620 Research Methods ⁵	0 credits
PHYS 4800 Undergraduate Thesis OR PHYS 4900 Internship ⁵	0-4 credits
Total Course Load as of Third Year Fall Semester	83-87 credits

THIRD YEAR – SPRING SEMESTER	
ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
PHYS 3220 Classical Mechanics Attribute: Q2	4 credits
PHYS 3### ³	4 credits
Cognate Course ⁴	4 credits
PHYS 2600 Physics Colloquium ⁵	0 credits
PHYS 4620 Research Methods ⁵	0 credits
PHYS 4800 Undergraduate Thesis OR PHYS 4900 Internship ⁵	0-4 credits
Third Year Credit Total Overall	99-103 credits

2023-2024 Degree Map: B.A. Applied Physics
School of Natural Sciences & Mathematics | Stockton University
USC1 – 240 | (609) 652-4546

FOURTH YEAR – FALL SEMESTER	
ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
PHYS 3### ³	4 credits
Cognate Course ⁴	4 credits
PHYS 2600 Physics Colloquium ⁵	0 credits
PHYS 4620 Research Methods ⁵	0 credits
PHYS 4800 Undergraduate Thesis OR PHYS 4900 Internship ⁵	0-4 credits
Total Course Load as of Fourth Year Fall Semester	115-123 credits

FOURTH YEAR – SPRING SEMESTER	
ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
ASD or G-course Optional Attributes: W1, W2, A, H, I, R, and/or V	4 credits
PHYS 3### ³	4 credits
Cognate Course ⁴	4 credits
PHYS 2600 Physics Colloquium ⁵	0 credits
PHYS 4620 Research Methods ⁵	0 credits
PHYS 4800 Undergraduate Thesis OR PHYS 4900 Internship ⁵	0-4 credits
Fourth Year Credit Total Overall	135-139credits

Program Specific Notes

- An overall GPA of 2.0 or better in all NAMS courses and a grade of "C" or better in each program and cognate course, is required.
- Odd Years: e.g., 2019, 2021. Even Years: e.g., 2020, 2022. So, a Spring Odd Years course would be offered in Spring 2019, for example.
- All Q's will be covered in degree courses. All *but* one W2 will be covered.
- ¹ C or better in Physics I, II, and III is required to continue onto the intermediate and advanced physics courses.
- ² Students transferring from other majors who have already taken Physics for Life Sciences (PHYS 2110 and PHYS 2120) may substitute PHYS I and PHYS II respectively, with approval from the Physics Program.

2023-2024 Degree Map: B.A. Applied Physics
School of Natural Sciences & Mathematics | Stockton University
USC1 – 240 | (609) 652-4546

- ³ You must complete one of the following courses:
PHYS 3110 Electronics [Spring Even and Odd Years]; PHYS 3340 Optics [Spring Even Years];
PHYS 3370 Electricity and Magnetism [Fall Odd Years]; PHYS 3380 Thermal Physics [Spring Odd Years];
PHYS 3390 Introduction to Quantum Mechanics [Fall Even Years]
Once you have completed one of these classes then the remaining PHYS 3### course locations should be treated as ASD/G-course to complete the BA liberal arts requirements (8-ASD and 8-G-course).
 - ⁴ Two cognates must be of 2000 level or above. Three cognates must be of 3000 level or above, two of which must be from the following list:
 - PHYS 3120 Electrical Circuits [Q2]
 - PHYS 3030 Biomedical Physics
 - PHYS 3350 Mathematical Physics [Q1]
 - PHYS 3240 Modeling and Simulation
- OR** any of the following, provided it was not taken as a non-Cognate course:
- PHYS 3110 Electronics [Spring Even and Odd Years]
 - PHYS 3340 Optics [Q2] [Spring Even Years]
 - PHYS 3370 Electricity and Magnetism [Fall Odd Years]
 - PHYS 3390 Introduction to Quantum Mechanics [Even Years– 3rd or 4th year]
 - PHYS 3380 Thermal Physics [Q2] [Spring Odd Years].
- ⁵ Four (4) semesters of PHYS 2600 Physics Colloquium, four (4) semesters of PHYS 4620 Research Methods, and one (1) semester of PHYS 4800 Undergraduate Thesis **OR** PHYS 4900 Internship must be completed.