

Bachelor of Science in Natural Science, Life Science

The goal of academic advising is to further enhance the educational mission of the university, and create quality, accessible advising partnerships with all students in a positive environment that supports student success. This advising sheet is for tracking purposes toward degree completion and is subject to change. Students also may track their academic progress via STAR Degree Check through www.star.hawaii.edu. Academic Advising appointments may be scheduled by calling [808-689-2689](tel:808-689-2689) or toll-free from neighbor islands at [866-299-8656](tel:866-299-8656).

Graduation Requirements (see the 2023-2024 catalog for any additional graduation requirements):

- 42 Upper Division Credits Minimum
- 120 Total Credits Minimum
- 30 UHWO Credits
- 3 Upper Division Writing Intensive Courses
- Focus Requirements (OC, HAP, ETH)
- 2.0 UHWO GPA
- 2.0 CONCENTRATION GPA

**Note: Some courses may be applied more than once to fulfill General Education, Core, or Concentration Requirements. Double counted courses do not reduce the number of credits required for the concentration. Students are still responsible for meeting the minimum number of credits in the concentration and the overall total credits for graduation*

General Education Requirements: 31 credits (21 credits *see note above)

Credits	Course Alpha / Number / Title
3	Foundations Written Communications (FW) ENG 100 Composition I
0*	Foundations of Quantitative Reasoning (FQ) MATH 241
6	Foundations Global and Multicultural Perspectives (FG): 6 credits from two different groups (A, B, C): *Group A: Primarily before 1500 CE (e.g., HIST 151 or ANTH 151) *Group B: Primarily after 1500 CE (e.g., HIST 152 or ANTH 152) *Group C: Pre-history to present
6	Diversification Arts, Humanities & Literature (DA, DH, DL): 6 credits from two different areas
3	Diversification Social Sciences (DS): 6 credits from two different areas (<i>recommend H-Focus</i>)
3	Diversification Social Sciences (DS): Different area from above. (<i>recommend O-Focus</i>)
0*	Diversification Natural Sciences (DB, DP, DY): 3 credits from the biological sciences (DB): BIOL 171
0*	3 credits from the physical sciences (DP): CHEM 161
0*	1 credit of laboratory (DY): CHEM 161L

Writing Skills Requirement: 3 credits

Credits	Course Alpha / Number / Title
3	ENG 200 Composition II (with a C- or higher)

Natural Science Core Requirements: 41 credits

**10 credits in the NS Core Requirement will also fulfill General Education Requirements*

Credits	Course Alpha / Number / Title
4	CHEM 161/ 161 L General Chemistry I and Lab (<i>Will satisfy general ed DP/DY above</i>) Prerequisite: Placement into ENG 100 or concurrent enrollment in ENG 100T and MATH 103 with a C or higher or concurrent enrollment in MATH 241
4	CHEM 162/ 162 L General Chemistry II and Lab Prerequisite: CHEM 161 with a C or higher
4	MATH 241 Calculus I (<i>Will satisfy general ed FQ above</i>) Prerequisite: Grade of "C" or better in MATH 140 or equivalent; or placement into MATH 241
4	MATH 242 Calculus II Prerequisite: Grade of "C" or better in MATH 241 or equivalent; or placement into MATH 242
4	PHYS 151/ 151L College Physics I and Lab or PHYS 170/ 170 L General Physics I and Lab Prerequisite: MATH 140 with a C or better, or Math 241 with a C or better or concurrent with Math 241
4	PHYS 152/ 152 L College Physics II and Lab or PHYS 272/ 272 L General Physics II and Lab Prerequisite: PHYS 151/151L with a C or better, or PHYS 170/170L with a C or better and Math 242 with a C or better or concurrent with Math 242
4	BIOL 171/ 171L Introduction to Biology I and Lab (<i>Will satisfy general ed DB above</i>) Prerequisite: Completion of or concurrent enrollment in either CHEM 151 or 161

Credits	Course Alpha / Number / Title
4	BIOL 172/ 172L Introduction to Biology II and Lab Prerequisite: BIOL 171/171L
3	Select one course from the following: HLTH 204 Introduction to Native Hawaiian & Indigenous Health and Healing HLTH 205 Hawaiian Ways of Healing NSCI 300 Interdisciplinary Indigenous Sciences and Health
1	NSCI 100L Transdisciplinary Introduction to Laboratory Methods
2	NSCI 200 Transdisciplinary Introduction to Research Methods
3	NSCI 400 Interdisciplinary Seminar

Life Science Lower Division Concentration Requirement: 19 credits

Credits	Course Alpha / Number / Title
4	BIOL 265/265L Ecology and Evolutionary Biology & Lab Prerequisite: BIOL 172/172L
5	BIOL 275/275L Cell and Molecular Biology and Lab Prerequisite: Grade of "C" or better in BIOL 171/171L and CHEM 272/272L
5	CHEM 272/272L Organic Chemistry I and Lab Prerequisite: Grade of "C" or better in CHEM 162/162L
5	CHEM 273/273L Organic Chemistry II and Lab Prerequisite: Grade of "C" or better in CHEM 272/272L

Life Science Upper Division Concentration Requirements: 21 credits

Credits	Course Alpha / Number / Title
3	BIOL 310 Statistics for Biologists or HLTH 350 Biostatistics Prerequisite: MATH 135
3	BIOL 365 Research Methods in Biology Prerequisite: BIOL 101 or BIOL 171
5	BIOL 375/375L Genetics and Lab Prerequisite: BIOL 275 or consent of instructor
3	BIOL 390 Communicating in Biological Sciences (WI) Prerequisite: C or better in BIOL 171/171L, BIOL 172/172L, and ENG 100
3	BIOL 405 Ethics for Biologist (ETH) Prerequisite: BIOL 101 or BIOL 171
4	BIOC 441 Basic Biochemistry Prerequisite: BIOL 275/275L and CHEM 273/273L, all with a grade of C or better; or instructor approval

Life Science Concentration Electives: 15 credits

BIOL 360 Island Ecosystems	PHYL 354/354L Exercise Physiology & Lab
BIOL 384/384L Human Skeletal Biology & Lab	SCFS 310 Agroecology: The Science of Sustainable Agriculture
BIOL 475 The Analysis of Animal Remains in Archeology, Biology, & Forensics	SCFS 320 Theory and Practice of Sustainable Agriculture
BIOL 490 Mathematical Biology Seminar (1)	SCFS 370 Ahupua'a Management
GEOL 307 Worlds of the Past: Fossils and their Environments	SCFS 385 Near Shore Fisheries Management in Hawaii
MATH 304 Mathematical Modeling	SCFS 450 Climate Change, Food Security & Resilience
PHYL 301/301L Advanced Human Anatomy and Physiology I and Lab	ZOOL 450 Natural History of the Hawaiian Islands

Credits	Course Alpha / Number / Title
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3	

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3	
3	

Capstone Requirement: 3 credits

Credits	Course Alpha / Number / Title
3	NCSI 486L Senior Project or NCSI 490L Senior Practicum

Elective Requirement: 0-3 credits, please check with your College Success Advisor to determine if elective credits are needed.

Credits	Course Alpha / Number / Title
3	<i>Possible Upper Division Elective (300-400 level)</i>

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