



UNIVERSITY
of HAWAII®
WEST O'AHU



UNIVERSITY of HAWAII®
LEEWARD
COMMUNITY COLLEGE

UNIVERSITY OF HAWAII ARTICULATION AGREEMENT
Leeward Community College Associate in Science degree in Natural Science with a concentration in Biological Sciences to the University of Hawai'i-West O'ahu Bachelor of Science in Natural Science degree with a concentration in Life Science

The purpose of this Agreement is to facilitate a smooth transition for students from the Leeward Community College Associate in Science (AS) in Natural Science with a concentration in Biological Sciences program to the University of Hawai'i-West O'ahu Bachelor of Science (BS) in Natural Science with a concentration in Life Science program.

This recommended pathway is designed to produce multiple entry and exit points to flexibly serve student career and educational objectives. Students may use dual enrollment as a method of completing the required coursework outlined in the attachments to this agreement, contingent upon eligibility, deadlines, and established procedures.

Students must graduate from Leeward Community College with the articulated AS degree in Natural Science to be eligible for the benefits of this Agreement. Completion of the articulated AS degree will enable students to follow the University of Hawai'i-West O'ahu core, concentration, general education, focus, and graduation requirements in place on the effective term of this agreement. Participation in the University of Hawai'i Automatic Admissions transfer process is possible for students planning to complete the AS in Natural Science provided that eligibility, deadlines and procedures established for the designated term of entry are met. Students who do not complete the AS in Natural Science degree at Leeward Community College will be required to meet catalog requirements in place upon admission to the University of Hawai'i-West O'ahu. While this academic pathway represents the most efficient coursework progression from the AS program at Leeward Community College through the BS program at the University of Hawai'i-West O'ahu, individual course substitutions may be made on a case-by-case basis when recommended courses are not available; however, all core, concentration, general education, focus, and graduation requirements must still be met in those individual cases.

Requirements of the articulated Associate in Science (AS) in Natural Science with a concentration in Biological Sciences and the Bachelor of Science (BS) in Natural Science with a concentration in Life Science are provided as attachments and form the basis of this Agreement. Subsequent changes to the curricular requirements of these programs may require revisions to this Agreement.

Under the terms of this Agreement, the University of Hawai'i-West O'ahu agrees to:

1. Identify Success Advisors at the University of Hawai'i-West O'ahu who will partner with Leeward Community College Counselors to ensure timely and accurate advising information on pre-admission, admission, degree requirements, and other related advising information.
2. Identify a Success Advisor at the University of Hawai'i-West O'ahu who will work with their campus STAR personnel to develop an accurate STAR pathway for students pursuing this articulation agreement.
3. Identify a University of Hawai'i-West O'ahu faculty member who will serve as the faculty advisor to students who are part of this articulation in the selected concentration.
4. Inform students that financial aid may be available through either institution as the student identifies his/her home campus each semester, and that students must follow the financial aid policies and procedures at that home school in order to be eligible for financial aid.
5. Meet with Leeward Community College faculty and/or administration minimally every two years, or on an as-needed basis, to discuss potential and planned curricular changes.

Under the terms of this Agreement, Leeward Community College agrees to:

1. Place a notation in the advisor notes in STAR which identifies AS in Natural Science students intending to transfer to the University of Hawai'i-West O'ahu who are in the process of completing the AS degree and are a part of this articulation.
2. Identify a Counselor at Leeward Community College who will partner with the University of Hawai'i-West O'ahu advisors to ensure timely and accurate advising information on pre-admission, admission, degree requirements, and other relevant advising information.
3. Identify a Leeward Community College faculty member who will serve as the faculty advisor to students who are part of the articulation.
4. Inform students that financial aid may be available through either institution as the student identifies his/her home campus each semester, and that students must follow the financial aid policies and procedures at that home school in order to be eligible for financial aid.
5. Meet with the University of Hawai'i-West O'ahu faculty and/or administration minimally every two years, or on an as needed basis, to discuss potential and planned curricular changes.

This Articulation Agreement is effective beginning Fall 2020 and is based on the General Education and Focus requirements in effect at the University of Hawai'i-West O'ahu for 2020-2021.

This Agreement will be subject to review in Spring 2022 and may be continued, revised or discontinued with the consent of both parties. Should both parties agree to terminate the Agreement, the University of Hawai'i-West O'ahu will honor the Agreement stipulations for identified students currently enrolled in this articulation option at the time of termination.

Attachment I

LEEWARD COMMUNITY COLLEGE

Associate in Science in Natural Science with a concentration in Biological Sciences
 University of Hawai'i-West O'ahu Articulation Option Requirements
 Based on Catalog Year: 2020-2021

Required Program Courses

Credits	LCC Course	Course Title	UH West O'ahu Requirement
3	ENG 100	Composition I	FW
4	MATH 241	Calculus I	FQ, MATH 241
6	Foundations Global Multicultural Perspectives	Complete 6 credits from two different groups (FGA, FGB, FGC)	FGA/FGB/FGC
3	Diversification Social Sciences	Recommend PSY 100	DS
3	Diversification of Arts, Humanities or Literature	Recommend HWST 107 Hawai'i: Center of the Pacific	DH, HAP
3	BIOL 171	Introduction to Biology I	DB, BIOL 171
1	BIOL 171L	Introduction to Biology I Lab	DY, BIOL 171L
3	CHEM 161	General Chemistry I	DP, CHEM 161
1	CHEM 161L	General Chemistry I Lab	CHEM 161L
3	CHEM 162	General Chemistry II	CHEM 162
1	CHEM 162L	General Chemistry II Lab	CHEM 162L
3	BIOL 172	Introduction to Biology II	BIOL 172
1	BIOL 172L	Introduction to Biology II Lab	BIOL 172L
3	CHEM 272	Organic Chemistry I	CHEM 272
2	CHEM 272L	Organic Chemistry I Lab	CHEM 272L
5	Choose One:	<ul style="list-style-type: none"> CHEM 273/L Organic Chemistry II and Lab (Recommended) BIOL 275/L Cell and Molecular Biology and Lab 	CHEM 273/L or BIOL 275/L
15	Choose 15 credits of Natural Science Electives	Recommended for Life Science: <ul style="list-style-type: none"> MATH 242 PHYS 151/L OR PHYS 170/L PHYS 152/L OR PHYS 272/L BIOL 265/L 	MATH 242 PHYS 151/L or PHYS 170/L PHYS 152/L or PHYS 272/L BIOL 265/L

Note: To receive General Education or Focus requirements at the University of Hawai'i-West O'ahu, the course needs to be designated at the time of completion from Leeward Community College.

60 Total Credits

Attachment II

UNIVERSITY OF HAWAII-WEST O'AHU

Bachelor of Science in Natural Science with a concentration in Life Science
 University of Hawai'i-West O'ahu Articulation Option Requirements
 Based on Catalog Year: 2020-2021

General Education Requirements (31 credits)

Gen Ed / Focus	Credits	Requirement/Course Title
FW	3	Written Communication: ENG 100 Composition I
FS/FQ	3	Symbolic Reasoning: MATH 241 Calculus I
FG	6	Global & Multi-cultural Perspectives: Complete 6 credits from two different groups (FGA, FGB or FGC)
DA, DH, DL	6	Diversification Arts, Humanities or Literature: Complete 6 credits from two different areas
DS	6	Diversification Social Sciences: Complete 6 credits from two different subject areas
DB, DP, DY	7	Diversification Natural Sciences: Complete 3 credits of Biological Science (DB), 3 credits of Physical Science (DP) and 1 credit of Lab (DY)

Writing Skills Requirement (3 credits)

ENG 200 Composition II or ENG 209 Business Writing

Natural Science Core Requirements (28-38 credits)

Gen Ed / Focus	Credits	Course	Course Title
FQ	1-4	MATH 241	Calculus I (<i>may also satisfy general ed FQ above</i>)
	4	MATH 242	Calculus II
DP/DY	0-4	CHEM 161/L	General Chemistry I and Lab (<i>may also satisfy general ed DP/DY above</i>)
	4	CHEM 162/L	General Chemistry II and Lab
	4	Select one:	<ul style="list-style-type: none"> • PHYS 151/L College Physics I and Lab • PHYS 170/L General Physics I and Lab <i>*PHYS 170/L is 5 credits</i>
	4	Select one:	<ul style="list-style-type: none"> • PHYS 152/L College Physics II and Lab • PHYS 272/L General Physics II and Lab
DB	1-4	BIOL 171/L	Introduction to Biology I and Lab (<i>may also satisfy general ed DB above</i>)
	4	BIOL 172/L	Introduction to Biology II and Lab
	3	Select one:	<ul style="list-style-type: none"> • HLTH 204 Introduction to Native Hawaiian & Indigenous Health and Healing • HLTH 205 Hawaiian Ways of Healing • NSCI 300 Interdisciplinary Indigenous Science and Health (Recommended for Articulated Transfer students)

Gen Ed / Focus	Credits	Course	Course Title
	0	NSCI 100	Transdisciplinary Introduction to Laboratory Methods <i>(Waived for Leeward ASNS Articulated Students)</i>
	0	NSCI 200	Transdisciplinary Introduction to Research Methods <i>(Waived for Leeward ASNS Articulated Students)</i>
	3	NSCI 400	Interdisciplinary Seminar

Life Science Concentration Requirements (40 credits)

Credits	Requirement/Course Title
4	BIOL 265/265L Ecology and Evolutionary Biology & Lab
5	BIOL 275/275L Cell and Molecular Biology and Lab
5	CHEM 272/272L Organic Chemistry I and Lab
5	CHEM 273/273L Organic Chemistry II and Lab
3	BIOL 310 Statistics for Biologists
3	BIOL 365 Research Methods in Biology
5	BIOL 375/375L Genetics and Lab
3	BIOL 390 Communicating in Biological Sciences (WI)
3	BIOL 405 Ethics for Biologist (ETH)
4	BIOC 441 Basic Biochemistry

Life Science Concentration Elective Requirement (15 credits)

Complete 15 credits from the following:

- BIOL 360 Island Ecosystems
- BIOL 384/384L Human Skeletal Biology & Lab
- BIOL 475 The Analysis of Animal Remains in Archeology, Biology, & Forensics
- BIOL 490 Mathematical Biology Seminar (1)
- MATH 304 Mathematical Modeling
- PHYL 301/301L Advanced Human Anatomy and Physiology I and Lab
- PHYL 354/354L Exercise Physiology & Lab
- ZOOL 450 Natural History of the Hawaiian Islands

Capstone Requirement (3 credits)

NSCI 486L Senior Project or NSCI 490L Senior Practicum

Elective Requirement

Additional coursework may be needed to meet the University of Hawai'i-West O'ahu 120 total credit or upper division 42 credit minimum. Students are encouraged to select upper division coursework that fulfill any outstanding General Education requirements upon transfer to the University of Hawai'i-West O'ahu. Please check with your Success Advisor to determine if elective credits are needed.

Focus Requirements

Requirement

Oral Communication (OC)

Contemporary Ethical Issues (ETH)

Hawaiian, Asian and Pacific Issues (HAP)

*Can be met in combination with other requirements

Writing Intensive Requirement

Complete 3 upper division (300 or higher) level Writing Intensive (WI) courses. A minimum of two classes must come from coursework outside of the Capstone Course (NSCI 486L or 490L) *Whenever possible, WI sections of required core or concentration courses are highly recommended.*

Note: A minimum of 120 total credits must be earned of which 45 credits must be at the 300-400 level (also called “upper-division courses”). However, for students enrolled in the BSNS-Life Science Concentration, the upper-division course requirement may be reduced. Students should meet with the Faculty Advisor or Success Advisor to discuss course options. A minimum of 30 credits must be earned “in residence” through courses taken at the University of Hawai‘i-West O‘ahu.

Bachelor of Science in Natural Science, Life Science

(Leeward CC ASNS, Biological Sciences Articulation Agreement Effective Fall 2020)

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 current 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

General Education Requirements: 31 credits

Credits	Course Alpha / Number / Title
3	Foundations Written Communications (FW) /Leeward CC ENG 100 ENG 100 Composition I
3	Foundations of Quantitative Reasoning (FQ) /Leeward CC MATH 241 MATH 241 Calculus I
6	Foundations Global and Multicultural Perspectives (FG): /Leeward CC FGA, FGB, FGC 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
3	Diversification Arts, Humanities & Literature (DA, DH, DL): /Leeward CC HWST 107 DH, HAP 6 credits from two different areas
3	Diversification Arts, Humanities & Literature (DA, DH, DL): Different area from above.
3	Diversification Social Sciences (DS): 6 credits from two different areas /Leeward CC
3	Diversification Social Sciences (DS): Different area from above.
3	Diversification Natural Sciences (DB, DP, DY): /Leeward CC BIOL 171 3 credits from the biological sciences (DB):
3	3 credits from the physical sciences (DP): /Leeward CC CHEM 161
1	1 credit of laboratory (DY): /Leeward CC BIOL 171L

Writing Skills Requirement: 3 credits

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

Natural Science Core Requirements: 28-38 credits

*Up to 10 credits in the Lower Division Requirement can also fulfill General Education Requirements

Credits	Course Alpha / Number / Title
3	ENG 200 Composition II (or equivalent) with a "C-" or higher
0-4*	CHEM 161/ 161 L General Chemistry I and Lab (may also satisfy general ed DP/DY above) /Leeward CC 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 /Leeward CC Prerequisite: CHEM 161 with a C or higher
1-4*	MATH 241 Calculus I (may also satisfy general ed FQ above) /Leeward CC Prerequisite: Grade of "C" or better in MATH 140 or equivalent; or placement into MATH 241
4	MATH 242 Calculus II /Leeward CC 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 /Leeward CC *PHYS 170/L is 5 credits 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 /Leeward CC 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
1-4*	BIOL 171/ 171L Introduction to Biology I and Lab <i>(may also satisfy general ed DB above)</i> /Leeward CC Prerequisite: Completion of or concurrent enrollment in either CHEM 151 or 161
4	BIOL 172/ 172L Introduction to Biology II and Lab /Leeward CC 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 (Recommended)
0	NSCI 100 Transdisciplinary Introduction to Laboratory Methods (Waived)
0	NSCI 200 Transdisciplinary Introduction to Research Methods (Waived)
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 /Leeward CC 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 /Leeward CC Prerequisite: Grade of "C" or better in CHEM 162/162L
5	CHEM 273/273L Organic Chemistry II and Lab /Leeward CC 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 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
BIOL 384/384L Human Skeletal Biology & Lab
BIOL 475 The Analysis of Animal Remains in
Archeology, Biology, & Forensics
BIOL 490 Mathematical Biology Seminar (1)

MATH 304 Mathematical Modeling
PHYL 301/301L Advanced Human Anatomy and
Physiology I and Lab
PHYL 354/354L Exercise Physiology & Lab
ZOO 450 Natural History of the Hawaiian Islands

Credits	Course Alpha / Number / Title
3	
3	
3	
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) if you choose HLTH 204 or HLTH 205 above</i>

Dr. Olivia George (ogearge@hawaii.edu), Dr. Megan Ross (mcolvin@hawaii.edu) and Dr. Romine (rromine@hawaii.edu) are the Faculty contacts for this concentration.