## **APPLIED FISHERIES, A.A.S.**

## Sitka, e-Learning

Requirement

BIOL S104

**BIOL S115** 

The Associates of Applied Science (A.A.S.) provides students with a broad educational and practical foundation in the fields of fisheries management and aquaculture. Students will be prepared for entry level employment in federal and state agencies, hatcheries, and the private sector. This program is offered via both distance and local course options. Successful graduates who work closely with academic advisors will have the option to continue on to Bachelors of Science (B.S.) in Fisheries and Ocean Sciences through UAS or UAF. Program assessment plans are posted at the Program Assessment website (https://uas.alaska.edu/provost/academic-affairs/assessment/).

The A.A.S. in Applied Fisheries requires a minimum of sixty credit hours and a GPA of 2.50. Of the 60 credits, students must complete 20 credits at the 200 level or above. Students must complete 6 credit hours of internship.

Minimum Credit Hours		60		
General Education		17		
Requirements				
Major Requirements		43		
Code	Title	Credits		
General Education Requirements				
Written Communication	on Skills	6		
WRTG S111	*Writing Across Contexts			
WRTG S212	*Writing and the Professions			
Oral Communication Skills		3		
COMM S111	*Fundamentals of Oral Communication <sup>1</sup>			
or COMM S235	*Small Group Communication and Building	d Team		
Computational Skills		4		
MATH S105	Intermediate Algebra <sup>2</sup>			
or MATH S151	*College Algebra for Calculus			
Science				
Select one of the following:		4		
BIOL S103	*Biology and Society			

BIOL S116	*Fundamentals of Biology II		
CHEM S103	*Introduction to General Chemistry		
ENVS S102	*Earth and Environment		
Major Requirements			
FT S120	Fisheries of Alaska	3	
FT S211	Fisheries Management Techniques	3	
FT S212	Fisheries Management Techniques Lab	1	
FT S122	Alaska Salmon Culture I	3	
FT S222	Alaska Salmon Culture II	3	

\*Natural History of Alaska

\*Fundamentals of Biology I <sup>2</sup>

FT S223	Alaskan Aquaculture Lab	1
FT S270	Freshwater Ecology	3
or FISH F446 - FRE	ESI	
FT S272	Fisheries Management, Law and Economics	3
FT S274	Fish Biology	3
or FISH F427 - ICH	<del>I</del> TI	
FT S291	Fisheries Internship	6
OCN S101	*Introduction to Oceanography	3
or MSL F211 - INTI	RO	
Select 11 credits of	of the following:	11
BA S166	Small Business Management	
FT S125	Fish Pathology Lab	
FT S188	Basic Scuba Diving	
FT S194	Fisheries Policy Practicum (Fisheries Technology Practicum)	
STAT S200	*Elementary Statistics	
Advisor approved	electives	
Any of the science GERs not taken above		
Total Credits		60

\* Denotes GER

**Hours** 

- <sup>L</sup> Grade C 2.00 or better
- Students interested in pursuing a bachelor's degree should take BIOL S115 and MATH S151.
- 1. Students will demonstrate sound knowledge of fish and their habitats (UAS competencies in information literacy and critical thinking).
  - a. Students will identify common commercial species of Alaska and understand their habitat needs.
  - b. Students will describe water as an environment for life.
  - c. Students will convey fishery information to faculty and classmates.
- 2. Students will have sound field sampling techniques (UAS competencies in quantitative skills, critical thinking, computer usage and communication).
  - a. Students will collect, analyze, and present fisheries data utilizing standard methodologies.
  - b. Students will describe the importance of following protocols and techniques, utilizing good field data collection techniques and data recording techniques.
  - c. Students will describe methodologies and protocols; practice good data management skills; summarize and communicate findings.
  - d. Students will discuss the importance of correct data collection and analysis.
- 3. Students will operate safely while participating in program activities and utilizing program equipment (UAS competency in professional behavior).

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- a. Students will identify methods for reducing injury in the field and lab setting.
- b. Students will discuss safe operating procedures for equipment; assess field conditions to determine safety guidelines to follow.
- c. Students will discuss the importance of promoting safety for self and others and equipment.
- 4. Students will understand the basic principles of salmon enhancement techniques used in Alaskan hatcheries (UAS competencies in quantitative skills and critical thinking).
  - a. Students will describe the basic process involved in fish rearing.
  - b. Students will take part in "hands-on" procedures to ensure successful output of fish.
  - c. Students will describe attributes of Salmon Culture facilities in Alaska.
- 5. Students will understand the management and legal frameworks within which marine fisheries exist (UAS competencies in communication, information literacy and computer usage).
  - a. Students will describe the legal and regulatory framework of marine fisheries in Alaska.
  - b. Students will describe the current status of marine fisheries statewide.
  - c. Students will describe the social and economic value of Alaska fisheries to the state of the nation.