

University of Alaska Southeast
DRAFT Program Assessment Plan for Fisheries Technology

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Assessment Plan Steps 1-5

Step1. Student learning goals

Fisheries Technology Overview and Goal: The Associate of Applied Science provides students with a broad educational and practical foundation in the field of fisheries technology. Students will be prepared for entry level employment in federal and state agencies, hatcheries and the private sector.

The fisheries technology curriculum provides a broad educational and work-based foundation in the field of fisheries technology. The goal of the program is to develop well-rounded fisheries technicians with broad backgrounds in the practical and academic skills of fish and invertebrate culture, fisheries, habitat, fish stock assessment, and wild stock management (both commercial and recreational). Students will also gain a solid understanding of the human and political dimensions of working in a natural resource field. Natural resource management involves many segments of society and a high level of public participation. To succeed in such a profession, students must be well trained in human relations. Students will prepare for immediate employment in the fishing industry (hatchery, management, field assessment, or private sector) upon program completion. Students may choose to pursue an AAS degree in Fisheries Technology or Certificate in Fisheries Technology.

1. Students will demonstrate sound knowledge of fish and their habitats. (UAS competencies in information literacy and critical thinking)
2. Students will be able to collect, analyze, and present fisheries data utilizing standard methodologies (UAS competencies in quantitative skills, critical thinking, computer usage and communication)
3. Students will have sound field sampling techniques (UAS competencies in critical thinking and quantitative skills)
4. Students will operate safely while participating in program activities and utilizing program equipment. (UAS competency in professional behavior)
5. Students will understand the basic principles of salmon enhancement techniques used in Southeast Alaska (UAS competencies in quantitative skills and critical thinking)
6. Students will understand the management and legal frameworks within which marine fisheries exist (UAS competencies in communication, information literacy and computer usage)

Step 2. Outcome Statements:

7. Students will demonstrate sound knowledge of fish and their habitats. (UAS competencies in information literacy and critical thinking)

Graduates:

Identify common commercial species of Alaska and understand their habitat needs (K).
Age, size, and analyze fish to extract fishery related information (S).
Convey fishery information to supervisors and team members (D).

8. Students will be able to collect, analyze, and present fisheries data utilizing standard methodologies (UAS competencies in quantitative skills, critical thinking, computer usage and communication)

Graduates:

Understand the importance of following protocols and techniques; utilizing good field data collection techniques and data recording techniques (K).
Follow assigned methodologies and protocols; practice good data management skills; summarize and communicate findings (S).
Respect the process of correct data collection and analysis (D).

9. Students will have sound field and lab sampling techniques (UAS competencies in critical thinking and quantitative skills)

Graduates:

Distinguish between common sampling parameters and their different uses (K).
Follow methodologies accurately and precisely (S).
Work well independently and within a group to accomplish analysis (D).

10. Students will operate safely while participating in program activities and utilizing program equipment. (UAS competency in professional behavior)

Graduates:

Identify methods for reducing injury in the field and lab setting (K).
Follow operating procedures for equipment; assess field conditions to determine safety guidelines to follow (S).
Promote safety for self and others and equipment (D).

11. Students will understand the basic principles of salmon enhancement techniques used in Southeast Alaska (UAS competencies in quantitative skills and critical thinking)

Graduates:

Understand the process involved in fish rearing (K).
Practice learned procedures to ensure successful output of fish (S)
Pay attention to detail and carefully follow procedures (D).

12. Students will understand the management and legal frameworks within which marine fisheries exist (UAS competencies in communication, information literacy and computer usage)

Graduates:

Have knowledge of legal and regulatory framework of marine fisheries (K)

Can determine the current regulatory or legal framework for a given fishery and/or region (S)

Value the social and scientific complexity of managing fisheries (D)

Step 4: Methods and Measures for program goals:

13. Students will demonstrate sound knowledge of fish and their habitats. (UAS competencies in information literacy and critical thinking)

Components to Measure	Performance indicators	Knowledge, skills,abilities	Personal Qualities
Identify species	<ol style="list-style-type: none"> 1. Organisms id'd accurately to appropriate taxonomic level 2. Scientific protocol followed 3. Results are written down and submitted to correct place/clearly organized/legible 4. Survey is done with correct timing at correct location 	<ol style="list-style-type: none"> 1. Ability to use dichotomous key 2. Knowledge of taxonomy and basic morphology 3. Knowledge of chain of custody Knowledge of fish life histories 4. Ability to take accurate field notes following note taking procedures 	<ol style="list-style-type: none"> 1. Performs assigned task(s) 2. Understands systems/hierarchy 3. Uses logic to draw conclusions 4. Summarizes information well 5. Acquires supplies and equipment appropriate to task
Characterize habitat	<ol style="list-style-type: none"> 1. Appropriate survey methodologies and protocols are used. 2. Sample sites accessed safely. 3. Surveys conducted following relevant laws/regulations. 4. Habitat characteristics documented thoroughly 		
Measure water parameters			

14. Students will be able to collect, analyze, and present fisheries data utilizing standard methodologies (UAS competencies in quantitative skills, critical thinking, computer usage and communication)

15. Students will have sound field sampling techniques (UAS competencies in critical thinking and quantitative skills)

16. Students will operate safely while participating in program activities and utilizing program equipment. (UAS competency in professional behavior)
17. Students will understand the basic principles of salmon enhancement techniques used in Southeast Alaska (UAS competencies in quantitative skills and critical thinking)
18. Students will understand the management and legal frameworks within which marine fisheries exist (UAS competencies in communication, information literacy and computer usage)



Directions: List I, D or E for each outcome under the appropriate course column. You may use D or E more than once as relevant

	Communication GER	Humanities Social Science GER	Math Natural Sciences GER	FT 120	FT 122	FT 202	FT 210	FT 222	FT 270	FT 272	FT 273	FT 291	MT 119	MT 120	OCN 101
Fisheries Technology															
I = Introduce D = Develop E =Emphasize															
Learning Goal: Knowledge of fish and their habitats				I	I		E	D	D		E	E			D
Outcome: Identify			I	I	I		D	D	D		E	E			D
Outcome: Analyze			I				E	D	D		E	E			D
Outcome: Convey	I/D			I	I	D	D	D		D	E	E			

Fisheries Technology Program Curriculum Map Goal 2

Directions: List I, D or E for each outcome under the appropriate course column. You may use D or E more than once as relevant

	Communication GER	Humanities Social Science GER	Math Natural Sciences GER	FT 120	FT 122	FT 202	FT 210	FT 222	FT 270	FT 272	FT 273	FT 291	MT 119	MT 120	OCN 101
Fisheries Technology															
I = Introduce D = Develop E =Emphasize															
Learning Goal: Collect, analyze, present data	I,D		I,D	I,D	I	D	E	E	D	E	E	E			D
Outcome: Understand protocols			I	I	D		D	E	D		E	E			I
Outcome: Follow method			I	I	D		E	E	D		E	E			I
Outcome: Respect collection methods			I	I	D	D	E	E	D	D	E	E			D

Fisheries Technology Program Curriculum Map Goal 3

Directions: List I, D or E for each outcome under the appropriate course column. You may use D or E more than once as relevant

	Communication GER	Humanities Social Science GER	Math Natural Sciences GER	FT 120	FT 122	FT 202	FT 210	FT 222	FT 270	FT 272	FT 273	FT 291	MT 119	MT 120	OCN 101
Fisheries Technology															
I = Introduce D = Develop E = Emphasize															
Learning Goal: sampling techniques			I	I,D	D	D	E	E	I		E	E			I
Outcome: distinguish			I	I	D		E	E	I		E	E			I
Outcome: follow			I	I	D		E	E	I		E	E			I
Outcome: Independent and team skills			I	I	D	D	E	E	I	D	E	E			I

Fisheries Technology Program Curriculum Map Goal 4

Directions: List I, D or E for each outcome under the appropriate course column. You may use D or E more than once as relevant

	Communication GER	Humanities Social Science GER	Math Natural Sciences GER	FT 120	FT 122	FT 202	FT 210	FT 222	FT 270	FT 272	FT 273	FT 291	MT 119	MT 120	OCN 101
Fisheries Technology															
I = Introduce D = Develop E =Emphasize															
Learning Goal: operate safely					D	I	E	D			E	E	E	E	
Outcome: Use safe methods			I		D		E	D			E	E	E		
Outcome: Follow op procedures			I		D		E	E			E	E	E		
Outcome: Promote safety			I		D	D	E	E			E	E	E		

Fisheries Technology Program Curriculum Map Goal 5

Directions: List I, D or E for each outcome under the appropriate course column. You may use D or E more than once as relevant

	Communication GER	Humanities Social Science GER	Math Natural Sciences GER	FT 120	FT 122	FT 202	FT 210	FT 222	FT 270	FT 272	FT 273	FT 291	MT 119	MT 120	OCN 101
Fisheries Technology															
I = Introduce D = Develop E =Emphasize															
Learning Goal: understand salmon enhance techniques				I	E			E			D	E*			
Outcome: Know process				I	E			E			D	E*			
Outcome: practice				I	E			E			D	E*			
Outcome: Detail/follow				I	E			E			D	E*			

*Depending on type of internship.

Fisheries Technology Program Curriculum Map Goal 5

Directions: List I, D or E for each outcome under the appropriate course column. You may use D or E more than once as relevant

	Communication GER	Humanities Social Science GER	Math Natural Sciences GER	FT 120	FT 122	FT 202	FT 210	FT 222	FT 270	FT 272	FT 273	FT 291	MT 119	MT 120	OCN 101
Fisheries Technology															
I = Introduce D = Develop E =Emphasize															
Learning Goal: understand management /legal	I			D		D	D			E		I-E*			
Outcome: know reg/leg framework	I			D		D	D			E		I-E*			
Outcome: determine	I			D		D	D			E		I-E*			
Outcome: value				D		D	D			E		I-E*			

*Depending on type of internship.

Competency Map:

List the number of the learning goal for each competency in the appropriate course column

Degree Program: Fisheries Technology

Learning Goals

#1 Fish and habitat knowledge

#2 Collect, analyze, present data

#3 Field and lab sampling techniques

#4 Operate safely

#5 Understand basics of salmon enhancement

#6 Understand management/legal framework

	GER's	CIOS 130,135, 140	FT120	FT 122	FT202	FT210	FT222	FT270	FT272	FT273	FT291	MT119	MT120
Communication	1,6	2	6,2	2	1-6*	1,2,4	2	2	1,2,6	1,2	1-6*		
Quantitative Skills	1,2,3		1,2	1,2,3,4,5		1,2,3	1,2,3,4,5	1,2,3	2,6	1,2,3	1-6*		
Information Literacy	1,2,3,5,6	2	2,6	1,2,3,5	1-6*	1,2,3	1,2,3,5	1,2,3	1,2,6	1,2,3	1-6*		
Computer Usage	1,2,3,5,6	2,3	2,6	1,2,3,5	1-6*	1,2,3,4	1,2,3,5	1,2,3	1,2,6	1,2,3	1-6*		
Professional Behavior	6	2,3	6	3,4,5	1-6*	2,3,4	3,4,5	3,4	2,6	2,3,4	1-6*	3,4	4
Critical Thinking	1,2,3		1,2,6	1,2,3,4,5,6		1,2,3,4	1,2,3,4,5,6	1,2,3	1,2,6	1,2,3,4	1-6*	4	4

FT 202 and FT 291 will vary