

Fisheries

PROGRAM PATHWAYS

WHICH PROGRAM WILL TAKE YOU TO YOUR CAREER GOALS?

The University of Alaska offers comprehensive Fisheries Programs designed to prepare students for successful careers in the field of fisheries including: aquaculture, mariculture management, research, and conservation. The following educational pathway outlines the various academic options available, from occupational endorsements to graduate degrees, for students aspiring to excel in the world of fisheries.

Certificates are slightly more comprehensive than occupational endorsements and focus on specific areas of fisheries management or aquaculture. Certificate in Applied Fisheries w/ an emphasis in Fisheries Management Courses might include Fish Biology, Fisheries Management Techniques, Fisheries of Alaska, and a Fisheries Internship.

A **Bachelor's Degree** in fisheries or a fisheries-related degree is a four-year program that provides a comprehensive understanding of fisheries biology, ecology, management, and research. Bachelor of Science in Fisheries and Marine Sciences Courses might include Fish Ecology, Ichthyology, Aquatic Ecology, The Harvest of the Sea, Introduction to Marine Science, and Fisheries Management.

Graduate Degrees are available for students who wish to pursue advanced research or leadership roles in the fisheries field. The Master of Science in Fisheries with Biology Emphasis is a Research-focused program with courses in Advanced Ecology of Fisheries Physiology, and Aquatic Conservation. The Doctor of Philosophy (Ph.D.) in Fisheries Science research-intensive program is focused on original research, advanced topics in fisheries, and specialization in a particular area of interest.

CERTIFICATE

Potential Careers

- Creel Sampler
- Fisheries Technician
- Fish Hatchery Technician
- Fisheries Management Assistant
- Natural Resources Technician
- Fish Culturist

BACHELOR'S DEGREE

Potential Careers

- Marine Ecologist
- Fisheries Biologist
- Fishery Policy Analyst
- Fisheries/Environmental Consultant
- Fisheries Scientist
- Fisheries Manager

GRADUATE DEGREE

Potential Careers

- Fisheries Policy Advisor
- Fishery Research Scientist
- Director of Fisheries Department
- Fishery Development Manager
- University Professor

OCCUPATIONAL ENDORSEMENT

Potential Careers

- Creel Sampler
- Aquaculture Assistant
- Fish Hatchery Technician
- Fisheries Technician
- Fishing Guide

Occupational Endorsements are short-term, specialized programs.

These endorsements can be earned within a few months and are ideal for individuals seeking immediate job opportunities or as a stepping stone to higher education. Occupational Endorsement in Fisheries Management Courses might include Fisheries of Alaska, Oceanography, and Fisheries Management Techniques.

ASSOCIATE'S DEGREE

Potential Careers

- Fisheries Biologist
- Fisheries Manager
- Hatcheries Manager
- Natural Resources Technician
- Fish Culturist

An **Associate's Degree** in fisheries provides a broader foundation in fisheries science and management and takes about two years to complete. Associate of Applied Science in Applied Fisheries Courses might include Oceanography, Fish Biology, Fisheries Management Law & Economics, Freshwater Ecology, and a Fisheries Internship.

UA Programs

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OPPORTUNITY**
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Occupational Endorsement in Fisheries Management (UAS)

Duration: 1 semester (approximately 15 credits)

Overview: Occupational Endorsements available in Alaskan Aquaculture, Fisheries Management, Alaskan Mariculture, and Scientific Diving. Programs are short-term and provide foundational knowledge and practical skills for entry-level positions in fisheries, aquaculture, research, and management. This program is ideal for individuals seeking hands-on experience in the field.

Certificate in Applied Fisheries (UAS)

Duration: 1 year (approximately 30 credits)

Overview: This program offers a comprehensive understanding of fisheries science, aquaculture, and fisheries management practices through an emphasis in either Alaskan Aquaculture or Fisheries Management. Students will acquire practical skills and theoretical knowledge through hands-on learning and internships to work as fisheries technicians or move on to an Associate or Bachelor degree.

Associate of Applied Science (AAS) in Applied Fisheries (UAS)

Duration: 2 years (approximately 60 credits)

Overview: This program emphasizes technical and practical skills required for fisheries management, aquaculture, and related fields. Graduates will be prepared for technician-level positions in the fisheries industry.

Associate of Science (AS) in Fisheries Science (UAS)

Duration: 2 years (approximately 60 credits)

Overview: This program provides a strong foundation in natural sciences, mathematics, and fisheries-specific courses. Graduates will be prepared to enter the fisheries workforce or transfer to a 4-year institution for further studies in fisheries science.

Bachelor of Arts (BA) in Fisheries (UAF)

Duration: 4 years (approximately 120 credits)

Overview: This hands-on program is the only one of its kind in North America. It includes a guaranteed internship and opportunities for funded research projects preparing students for a career in Fisheries with federal or state agencies and many conservation organizations.

Bachelor of Science (BS) in Fisheries and Marine Sciences (UAF)

Duration: 4 years (approximately 120 credits)

Overview: This is a comprehensive, hands-on undergraduate degree program with optional concentration in Fisheries, Marine Biology, or Oceanography. The degree is available in-person, in hybrid mode or fully online and includes internship experience and opportunities for funded research projects to prepare students for a career in Fisheries with federal or state agencies, conservation organizations, or academia.

Minor in Fisheries (UAF)

Duration: Varies depending on Major (15 credit requirement for minor)

Overview: This Minor provides students majoring in other areas with a strong background in a broad variety of topics related to fisheries such as biology, business administration, policy analysis and rural development. A recognition of the Fisheries Minor strengthens applications for fisheries-related jobs and graduate school.

Bachelor of Arts (BA) in Biology with a Fisheries Science Emphasis (UAS)

Duration: 4 years (approximately 120 credits)

Overview: This program covers diverse aspects of biology, including ecology, physiology, zoology, genetics, and conservation. With the Fisheries Science Emphasis, students take specialized courses in fisheries biology and management. Students have opportunities for research and internships.

Bachelor of Science (BS) in Biology with a Fisheries Science Emphasis (UAS)

Duration: 4 years (approximately 120 credits)

Overview: This program covers diverse aspects of biology, including ecology, physiology, zoology, genetics, and conservation. With the Fisheries Science Emphasis, students take specialized courses in fisheries biology and management. Students have opportunities for research and internships.

Bachelor of Science (BS) in Fisheries and Ocean Sciences with a Concentration in Fisheries Science (Degree offered jointly by UAS and UAF)

Duration: 4 years (approximately 120 credits)

Overview: This program covers diverse aspects of the biology, assessment, and management of fish and invertebrate populations and their environments. Students have opportunities for research and internships.

Bachelor of Science (BS) in Marine Biology with a Fisheries Science Emphasis (UAS)

Duration: 4 years (approximately 120 credits)

Overview: This program covers diverse aspects of marine ecology, marine zoology, marine animal physiology, and biological oceanography. With the Fisheries Science Emphasis, students take specialized courses in fisheries biology and management. Students have opportunities for research and internships.

Master of Science (MS) in Fisheries (UAF)

Duration: 2 years (approximately 30-36 credits, including thesis/research work)

Overview: This MS program focuses on advanced topics in fisheries science, conservation, and management. Students will conduct original research and gain expertise in a specialized area within the field.

Master in Marine Policy (MMP) (jointly offered by UAS and UAF)

Duration: 1 year (minimum 30 credits)

Overview: This program provides students with an integrated background in living marine resources and their management; analytic methods; law and policy; and economics, development and sustainability. Students will also complete an internship. This degree can be combined with any of the BA or BS programs into a '4+1' course-only graduate program.

Blue Master's in Business Administration (MBA) (UAF)

Duration: 2 years (approximately 30-36 credits)

Overview: The Blue MBA is a fully online, asynchronous program that combines an accredited *Master of Business Administration* in the College of Business and Security Management with courses in fisheries, marine biology and oceanography from the College of Fisheries and Ocean Sciences. This degree can be combined with any of the BA or BS programs into a '4+1' course-only graduate program.

Doctor of Philosophy (Ph.D.) in Fisheries (UAF)

Duration: typically 4-6 years (minimum 36 credits, including 18 thesis credits and 18 course credits)

Overview: The Ph.D. program is a research-oriented program that allows students to conduct original and impactful research in their chosen area of specialization. Graduates will be equipped to become leading experts in the field.

Note: The duration of programs may vary based on individual course load, course availability, and additional requirements. Program offerings and specific course details may be subject to change, so it's essential for prospective students to refer to the University of Alaska's official website or contact the academic advisors for the most up-to-date information.