

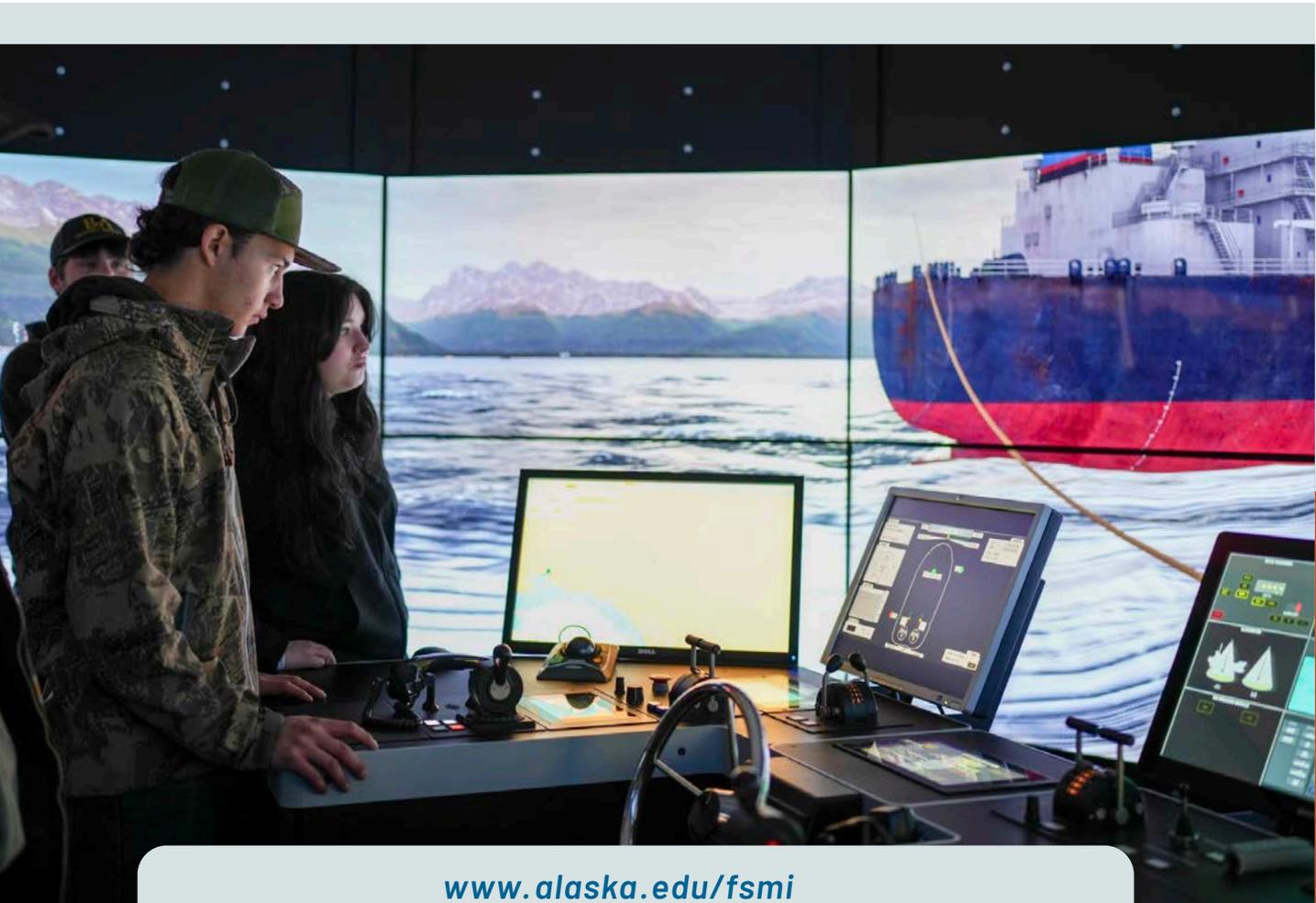
FISHERIES, SEAFOOD, MARITIME INITIATIVE (FSMI) 2025 Annual Report

Supporting the Maritime Workforce



UNIVERSITY
of ALASKA

Many Traditions One Alaska



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*The University of Alaska's Fisheries, Seafood and Maritime Initiative supports
Alaska's maritime workforce and economy by delivering education, training, and research.*



Sustaining Alaska: The Vital Role of the Maritime Industry

Alaska's maritime industry remains a vital pillar of our state's economy, identity, and culture. With 34,000 miles of coastline, borders on three seas, and boasting more inland water than any other state, Alaska continues to play an essential role in the movement of oil, gas, minerals, and timber to domestic and global markets, providing seafood to the world, and managing the waters and resources in a sustainable manner. Further, Alaska has caught national attention and anticipation to provide the natural resources needed to run the world, and as of this writing, AKLNG decisions are being made, and Executive Order 14153 Unleashing Alaska's Extraordinary Resource Potential to fully develop Alaska's natural resources to benefit our country's economic growth, create jobs, lower energy prices, and provide national security. This can not happen without a robust, well-staffed and skilled maritime sector.

Yet challenges confront this sector. According to the November 2025 issue of Alaska Economic

Trends, seafood harvesting employment fell for a fifth consecutive year in 2024, with a loss of 443 jobs, bringing this sector to its lowest employment level since records began in 2001. Even then, Alaska's seafood sector is the state's largest private-sector employer, largest manufacturer, and one of the pillars of the state's economy, producing over 5 billion pounds of seafood, harvested by over 20,000 commercial fishermen in over 8,000 vessels, generating \$6 billion in economic activity in Alaska.¹ Addressing these challenges is critical to ensuring the long-term sustainability of Alaska's maritime economy.

Looking forward, Alaska will continue to require a well-trained workforce to sustain and grow the maritime industry, ensuring the sector remains a key driver of the state's economic development and national interests.

¹ Alaska Resources 2025

Fisheries, Seafood and Maritime Initiative and Maritime Works supports Alaska's maritime workforce by coordinating key partnerships to deliver education, training and research.



The Fisheries, Seafood, and Maritime Initiative (FSMI), with Maritime Works, helps strengthen the maritime workforce and economy by supporting the efforts of four active working groups and coordinating a variety of key partners. As seen in Figure 1, FSMI leadership includes the University of Alaska, the Alaska Vocational Technical Center, and Maritime Works at the Alaska Workforce Alliance. FSMI continues to be committed to engaging maritime industry members to drive the effort to support Alaska's workforce and economy by delivering education, training and research. Each working group is focused on one of the maritime sectors identified in the 2014 Alaska Maritime Workforce Development Plan and supported by the subsequent 2025–2030 FSMI Action Agenda. The working groups include: Alaska Maritime Education Consortium; Research, Enhancement, and Management; Seafood Harvesting and Processing; and the Mariculture group, led by Alaska Sea Grant. The Alaska Maritime Education Consortium (AMEC) includes two subcommittees: the Afloat Subcommittee and the Ashore Subcommittee. All groups meet regularly to review workforce and training needs, collaborate to develop and deliver training that is responsive to industry needs, and address challenges to

make training more accessible for Alaskans to obtain maritime certifications and employment in Alaska's maritime industry.

Key FSMI/Maritime Works partnerships include the Alaska Marine Highway System/Department of Transportation, the Alaska Research Consortium, Southeast Conference, and the myriad of industry and non-profit stakeholders in Alaska. This report highlights recent activities and outcomes of FSMI and its partners. In 2025, FSMI working groups, along with industry partners, published the 2025–2030 Action Agenda update.

Maritime Works is managed by the Alaska Workforce Alliance (AWA) to grow awareness of career opportunities, improve workforce readiness among Alaskans, and support sustained industry engagement. AWA is a subsidiary of the Alaska Safety Alliance and partners with state agencies, industry leaders, and communities to implement workforce strategies that align with Alaska's economic needs and opportunities.

For more information, please see the FSMI website at www.alaska.edu/fsmi.



In 2025, the FSMI group created a new action agenda, which is a roadmap for the next 5 years. The collaboration between industry members and FSMI partners across Alaska helped generate the following identified priorities:

PRIORITY AREA 1

Maritime Career Awareness

Focus on increasing awareness of maritime careers across Alaska by:

- ▶ Updating FSMI and Maritime Works career materials with current salary data, training options, and job links.
- ▶ Launching a targeted social media campaign using videos, success stories, and engaging content, with emphasis on rural and coastal communities.
- ▶ Creating a centralized resource to help students identify and access training funding.
- ▶ Expanding intensive maritime career awareness programming statewide.

PRIORITY AREA 2

Seafood Harvesting and Processing Training

Strengthening workforce pipelines by:

- ▶ Enhancing entry-level commercial fishing pathways and mentorship programs.
- ▶ Expanding existing training to include credentialed programs that meet technical workforce needs in seafood processing facilities.

PRIORITY AREA 3

AMEC Ashore Pathways

Advance shore-based maritime careers by:

- ▶ Expanding marine technician training to include advanced diesel, electrical, electronics, and fabrication skills, guided by industry input.
- ▶ Prioritizing access for rural and underrepresented populations.
- ▶ Increasing availability of outboard motor training as an entry point to technician careers.
- ▶ Developing new “train-and-hire” partnerships where employers sponsor training and offer jobs upon certification.

PRIORITY AREA 4

AMEC Afloat Pathways

Improve access to afloat careers by:

- ▶ Strengthening collaboration among UAS-Ketchikan, AVTEC, and other training centers.
- ▶ Aligning USCG-credentialed curricula, enabling credit transfers, and sharing instructors and facilities.
- ▶ Creating clearer, more accessible pathways into maritime afloat careers.



PRIORITY AREA 5

Fisheries Research, Enhancement, and Management (REM) Pathways

Support fisheries education and career development by:

- ▶ Creating a comprehensive fisheries education website for students and advisors.
- ▶ Establishing articulation agreements across UA campuses to align REM credentials.
- ▶ Expanding scholarship access by identifying new funding sources.

PRIORITY AREA 6

Mariculture Workforce Development

Build a coordinated mariculture workforce by:

- ▶ Aligning workforce development efforts across UA and partners.
- ▶ Developing shared microcredentials and internships.

Investments and Outcomes

TECHNICAL VOCATIONAL EDUCATION PROGRAM (TVEP)

The University of Alaska (UA) has significantly increased its investment in maritime workforce development, underscoring its commitment to this critical industry and the jobs it supports. In FY25 another year of significant investment of \$1,366,800 from the Technical Vocational Educa-

- ▶ Adapting training programs to industry needs through ongoing industry engagement.

PRIORITY AREA 7

FSMI Visibility and Policy Engagement

Increase FSMI's impact and recognition by:

- ▶ Strengthening industry partnerships to champion workforce investment, policy support, and student success.
- ▶ Reporting FSMI's economic impact to the Alaska Legislature through regular reports and presentations, highlighting workforce needs, progress, and return on investment.

This annual report provides an overview of the efforts conducted by the FSMI working groups during the previous fiscal year to achieve advancements in the aforementioned priority areas, with a focus on measurable progress, program development, and expanded access to education and training opportunities across Alaska.

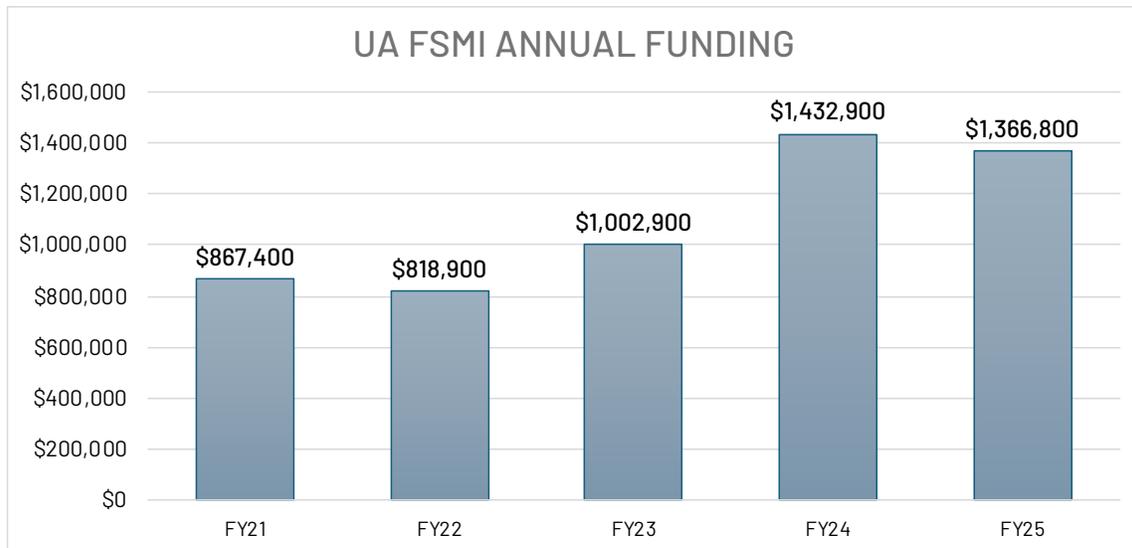
tion Program (TVEP) into FSMI programs to advance the Alaska Maritime Workforce Development Plan, following FY24's significant investment of \$1,432,900. Over the last five years (FY21–FY25), UA has invested an annual average of \$1,097,780 from TVEP. Again, this marks a

substantial rise from the previous five-year average (FY16–FY20) of \$662,000.

Investment examples include funding program development, expansion, and delivery of maritime workforce training, varying from short, focused workshops to degree programs. Many result in industry recognized credentials, such as National Center for Construction Education and Research

(NCCER) certifications or United States Coast Guard (USCG) licensure. The funds also supported ongoing FSMI coordination and investment in industry-identified workforce initiatives.

AVTEC also received separate TVEP funding, not reflected below, that helps support their Alaska Maritime Training Center.



FSMI programs trained 3,893 students in FY25. Training numbers were lower this year for two primary reasons. First, several training locations paused some programming due to faculty turnover, temporarily reducing capacity. Second, AVTEC implemented a change in how maritime training data are collected. In prior years, all courses taught by maritime faculty were counted as maritime training, regardless of who the students were. Under the new methodology, only students who are classified as maritime students are counted, even if the course is taught by maritime faculty.





CAPITAL BUDGET GRANT

In addition to these investments, the University of Alaska received a one time \$2M capital budget grant in FY22 from the Alaska State Legislature to be invested over four years. These investments are funding a variety of activities, including student scholarships, equipment upgrades, seed funding to establish several outboard motor maintenance training centers, maritime staff/faculty training and development, and investments in vessel maintenance and repair courses across several UA campuses. This program will impact hundreds of workers across Alaska’s blue economy.

ALASKA MARINE HIGHWAY SYSTEM MARITIME EXPLORATION PROGRAM

In this past fiscal year, the Alaska Department of Transportation invested over \$300,000 with the University of Alaska Fairbanks T3 program and \$150,000 with Maritime Works to conduct maritime career awareness in coastal communities and several intensive training sessions for high school students with an interest in the Alaska Marine Highway System’s ashore and afloat careers.

EMPLOYMENT OUTCOMES

The Alaska Department of Labor and Workforce Development operates AVTEC, Alaska’s only state-operated postsecondary vocational training center. AVTEC houses the Alaska Maritime Training Center, which provides all maritime

training for the Department of Labor and Workforce Development.

The University of Alaska (UA) is the state’s only public higher education institution and consists of three separately accredited universities and thirteen community campuses throughout the state. Multiple campuses in coastal communities provide access to maritime training in the southwest, gulf coast, and southeast economic regions of Alaska.

The following table breaks down employment outcomes for the students that completed various afloat and ashore programs across the state. This includes the percentage of individuals that found employment, as well as changes in their wages one year after program completion.

FY2025 Maritime Pathways	% Employed 1 Year After Graduation	Wages % Change
AVTEC		
Afloat Pathways	77%	27%
Ashore Pathways	87%	9%
UAS Ketchikan		
Afloat Pathway	80%	31%
Ashore Pathway	70%	34%
UAS Sitka		
Afloat Pathway	63%	5%
Ashore Pathway	59%	9%
UAF Bristol Bay		
Afloat Pathway	77%	-7%
Ashore Pathway	64%	8%
UAA Prince William Sound		
Ashore Pathway	56%	7%



FSMI Working Group Highlights

ALASKA MARITIME EDUCATION CONSORTIUM (AMEC)

AMEC's mission is to collaborate to prepare Alaskans for afloat and ashore careers that will support and strengthen the maritime workforce.

▶ AMEC is designated by the U.S. Department of Transportation's maritime Administration (MARAD) as a Center of Excellence for Domestic Maritime Workforce Training and Education (CoE). Authorized under the National Defense Authorization Act of 2018, CoE programs assist the maritime industry in gaining and sustaining a well-trained labor force while enhancing diversity in the industry. "The CoE designations recognize the high standard of maritime education and training provided by the designated community and technical colleges and maritime training centers. These institutions play vital roles in our nation's maritime industry by providing the training and skills students need to begin and advance careers afloat and ashore," said Acting Maritime Administrator Lucinda Lessley. AMEC's CoE includes six academic institutions:

- Alaska Vocational Technical Center (AVTEC), Seward, AK
- University of Alaska Fairbanks, Bristol Bay Campus, Dillingham, AK

- University of Alaska Anchorage, Kodiak College, Kodiak, AK
 - University of Alaska Anchorage, Kenai Peninsula College, Homer, AK
 - University of Alaska Anchorage, Prince William Sound College, Valdez, AK
 - University of Alaska Southeast at Ketchikan, Ketchikan, AK
- ▶ AMEC continued to expand its affiliate partners across the state of Alaska. At the end of calendar year 2025, AMEC included 6 partners, and 19 affiliate partners.
- ▶ AMEC's Yamaha Maintenance Certification Program (MCP) continued to grow, with 275 Introduction to Outboard Motor systems certifications and 121 Maintenance Certification Program certifications earned by Alaskans by December of 2025. In partnership with the Yamaha U.S. Marine Business Unit, AMEC launched the Yamaha MCP program in 2022 to enhance marine service training in Alaska. Given the high commercial use and logistical challenges in Alaska, Yamaha outboard motors are often replaced rather than repaired. To address this gap, the Yamaha MCP program is equipping Alaskans with the skills needed to maintain and service the boats and engines that sustain the state's maritime economy. Students begin with the



Introduction to Outboard Systems (ITOS) course, offered at various AMEC sites. They then progress through MCP levels 1–4, combining classroom instruction with hands-on laboratory experience. The curriculum covers the concepts, operations, service, and maintenance of both 2-stroke and 4-stroke outboard engines.

- ▶ Prince William Sound College (PWSC) hosted an ITOS/MCP Level 1 instructor training over the summer 2025, training 12 instructors from various locations across Alaska.
- ▶ With the support of AMEC, Maritime Works partnered with UAF T3 to offer a hands-on, career exploration program for high school students interested in jobs on and around the water. This program was made possible through an effort from the DOT to fund maritime credentialing opportunities to Alaskan high school students. This program provided classroom presentations, as well as immersive experiences in Alaska’s maritime industry through field trips, industry tours, and networking opportunities with maritime professionals. Students were mentored by Maritime Works staff in receiving TWIC and Merchant Mariner Credential applications. In spring 2025, Maritime Works/T3 offered career awareness programming in Sitka, Valdez, and Wrangell with fall 2025 programs in Homer, Kodiak, Ketchikan, Hoonah, and Kake. Six youth/young adults

obtained their TWIC cards, 12 successfully passed Boater Safety, 4 received Food Handler’s Cards, 13 submitted MMC applications, and 44 received MMC credentialing and maritime career pathway training. Maritime Works reached 500+ students last year through classroom presentations.

REM

In 2025, the Research, Enhancement, and Management Working Group made great headway on numerous goals.

- ▶ Continuing an excellent trend of strengthening student capacity through scholarship awards, the REM working group awarded 13 scholarships for the fall 2024 Semester, and 10 scholarships for the spring 2025 Semester. These awards were previously granted to 18 students in 2023. The awardees are enrolled in programs within the University of Alaska system that focus on fisheries and related curricula. Of the recipients who received awards in 2025, several reported significant alleviation of housing and living expenses, thereby helping them focus on the pursuit of their studies. Another student reported that the scholarship helped to strengthen her data for her master’s thesis project; as she was able to cover the costs of running additional samples. These awards have benefitted students seeking education ranging from Certificates to PhDs. Some are young adults, some are making a career change, and others



are single parents and students without the capacity for full time work in addition to their studies.

- ▶ An articulation agreement between UAS Sitka and UAS Juneau Fisheries Programs has reached the final stages of approval. This is anticipated to be a significant improvement that will allow more flexibility and choices for student education pathways within the University of Alaska Fisheries Programs.
- ▶ The Fisheries Pathway document made in 2024 has been highly regarded by the maritime community as being an excellent resource for career and education awareness for Alaska Fisheries opportunities. It has also functioned as a reference for similar groups aiming to articulate and visualize career pathway awareness. The subsequent website project has made great progress in bringing this document to life. The University of Alaska Fisheries programs represented by the members of REM are making this collective website to provide an assembly of information and resources for current and future students. This website in combination with the articulation agreements and pathway document have built a robust foundation for inviting students to pursue careers pertaining to Alaska's waters, aquatic resources, and hatcheries.

SHP

The Seafood Harvesting and Processing Working Group continued expanding and refining highly sought-after trainings. This group aims to strengthen the skillsets of seafood processors, thereby propelling upward movement and filling higher level roles within the industry. It also encourages and supports new and continued interest in seafood harvesting through training and development opportunities. The members are composed of UAF Alaska Sea Grant Marine Advisory Program agents.

- ▶ The Level 2 Professional Ammonia Refrigeration Operator (ProAROE) training is a 1 week course which trained 15 students in Fall 2024.
- ▶ Between three classes, 21 students participated in Seafood Hazard Analysis Critical Control Points 2 (HACCP)
- ▶ At Kodiak High School, Alaska Sea Grant's Smoked Seafood School put on two workshops that hosted a total of 18 students. This has been an exciting class for Kodiak students over the last several years, and there is a syllabus under development for this class to be offered for-credit in the future.
- ▶ The Sanitation Control Procedures class trained 32 students.



- ▶ In fall of 2024 and spring 2025, the Alaska Seafood Processing Leadership Institute (ASPLI) weeklong session was completed by a total of 12 students.
- ▶ Better Process Control School is a 3-day class that trained a total of 7 students.
- ▶ SHP Working Group members travelled to Metlakatla to work with 12 students on an 8 hour Seafood Processing Supervisor Training. This was reported to be a valuable opportunity, with both groups intending to pursue future collaboration.

Aside from these trainings, the Seafood Harvesting and Processing group has driven other ongoing initiatives forward.

- ▶ The Ammonia Refrigeration unit has continued through further evaluations phases, with the involved parties working together to strategize the best placements and utilization of space for this infrastructure at the Kodiak Seafood Science Center. Once in place, this training will be high in demand for seafood processors, benefitting both the workers and industry they serve.
- ▶ The 11th occurrence of the Alaska Young Fisherman's Summit, established in 2007, will be hosted in Juneau in January of 2026. This pivotal event empowers up and coming fishermen; providing the chance to meet their statewide peers, collaborate, and network with fishing industry leaders.

- ▶ Other initiatives include AMSEA Onboard drill Conductor Training, AK Onboard Crew Training Class, Direct Seafood Marketing Business classes, and more.

MARICULTURE

Alaska's Mariculture Industry is projected to expand immensely over the next 20 years, eventually becoming a \$100M industry. In this case, Mariculture pertains to the production, enhancement, utilization and promotion of marine shellfish and aquatic plants cultivated in Alaska. Backed by the U.S. Department of Economic Development Administration Build Back Better (BBB) Regional Challenge, the Alaska Mariculture Cluster is a working group developed by the Southeast Conference. This group is dedicated to creating training and education infrastructure to build the resources and intellect needed for this growing industry.

- ▶ The 2025 Mariculture Conference was hosted in Sitka in February 2025, and drew the largest attendance to date with over 300 attendees. This event brought together a wide range of participants in the Mariculture industry, from farmers and processors, to researchers, educators, and community leaders.
- ▶ In the first part of 2025, several workshops were hosted to meet the demand for developing and sharing mariculture practices around



the state. This included a Kelp Business Planning and Marketing Workshop, Seaweed drying workshop, and a post-Kelp Fest knowledge exchange.

- ▶ A Train the Trainer event for Kelp Farm Operations made its debut in April 2025. This three day workshop had a great impact on the development and enhancement of kelp farms around the state. Participants received teaching kits which will allow them to bring knowledge back to their communities for sharing and implementation.
- ▶ Virtual Trainings and knowledge shares including:
 - Insights from the Scottish seaweed industry tour; 94 participants
 - Oyster Industry Knowledge Exchange Tour; 66 participants
 - HACCP Segment 2

STUDENT SPOTLIGHTS

Afloat Pathway Student

TAMMY, MICHELLE, AND JENNIFER LANG are sisters who have 25 years of combined experience working in the Alaskan Maritime Industry. Starting off as deckhands for whale watching tourism in Seward, they have each grown their skillset in unique ways, finding new openings in maritime around the world. Tammy and Michelle have each pursued Maritime training at AVTEC, including Basic Training for Michelle, and 100 Ton Captain's License, Able Bodied Seaman, Personal Survival Craft, Ratings Forming Part of a Navigational Watch, and Vessel Security Officer for Tammy.

"My time at AVTEC gave me the confidence to pursue my maritime career and the skills to make operating boats second nature. The instructors' guidance was key to navigating the daunting process of becoming a licensed captain, ultimately paving the way for us to own a great business." —Tammy

In 2026, the three Lang sisters will be taking on an exciting new opportunity. After 31 years in business, Lazy Otter Charters in Whittier will be handing the helm over to Tammy, Michelle, and Jennifer. Not only are they enthusiastic and experienced 100-ton Captains, sisters, and friends; but now they are business owners carrying on a legacy on the waters of Prince William Sound.



Renae with Yamaha President

Ashore Pathway Student
RENAE EGRASS

Renae Egrass from McGrath, Alaska is a graduate of Prince William Sound College’s Occupational Endorsement Certificate in Marine Services Technology, where she enrolled after taking a small engine repair class in McGrath held by Prince William Sound College. In the past year, she went on to complete Yamaha Marine University’s Inline Engine Systems and Yamaha Diagnostics Systems course at Yamaha’s headquarters in Kennesaw, Georgia. Renae says, “In rural Alaska, outboards are everything. If your motor breaks, you could miss your chance to hunt or fish, and that could mean not having enough food for the winter,” said Renae Egrass. *“The fact that I can understand outboard engines and help people in my community is life changing.”*



Jake Watkins

Research Enhancement Management Student
JAKE WATKINS

Jake Watkins is a senior student in Juneau in the joint UAS-UAF BS Fisheries Program. He developed an interest in fisheries and fisheries culture while growing up and fishing in California and Mexico. Jake has a 3.5 GPA and in recent summers has worked as a fish research technician at the Alaska Coastal Rainforest Center and as a marine harvest technician for ADFG. His academic interests include working in R and he has honed his skills by attending a biomathematics workshop and taking statistics courses. In fall 2025, Jake developed a set of generalized additive mixed models in R to explore juvenile coho salmon consumption of seasonally available insects. Jake will work at the Auke Creek salmon weir this spring and is on course to graduate at the end of the fall 2026 semester. His long term goal is a career working with fish in southeast Alaska.



Isidra Trejo

Mariculture Student
ISIDRA TREJO

In spring of 2025, Isidra completed the Aquaculture Semester at the University of Alaska Southeast (UAS) in Sitka. This program not only introduces students to concepts and skills related to cultivating ocean species for food, but also incorporates adjacent maritime skills like boat handling, safety, and maintenance. Isidra noted that the intensive, field based program

“...really helped me build up my confidence when it comes to maritime skills like working with boats, gear, and being on the water.”

Beginning Spring of 2026, she will be putting these skills into practice while working with Blue Starr Oyster Company.



ASPLI STUDENTS

Seafood Harvesting and Processing Students

Alaska Seafood Processing Leadership Institute (ASPLI) is a two-week program held every other year by Alaska Sea Grant. The 2024–2025 ASPLI session concluded in March 2025. The group of 12 students hold supervisory positions in operations, fleet management, engineering, and other departments in seafood processing facilities across Alaska. Each student delivered presentations on how they applied concepts from the autumn classes to their own facilities. Projects included efforts to improve ergonomics, signage, inventory management, workspace efficiency, and more. The session closed out with overviews on fisheries policy and regulations, as well as discussions and activities exploring leadership styles with Sandra McGill, instructor at UAF CTC. The 2026–2027 session of ASPLI will be held in November 2026 and March 2027.



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