

UNIVERSITY OF ALASKA SOUTHEAST KETCHIKAN

# Marine Transportation

## Annual Assessment Report

Academic Year

2022 - 2023

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University of Alaska Southeast (UAS) Marine Transportation annual assessment report of student learning outcomes for fall 2022 and spring 2023.

### **Program Overview:**

The UAS Marine Transportation Program offers a two-year Associate of Applied Science in Marine Transportation degree. Students are able to choose between two emphases, Deck and Engine Room.

Graduates with a Deck Emphasis, who have met sea service requirements, are qualified to serve as officers on vessels of not more than 200 Gross Registered Tons upon Near Coastal, or Inland Waters.

**“Deck Emphasis:** Students will be prepared for employment in many sectors of the maritime industry including but not limited to; tourism, workboats, RO-RO ferries and deep sea shipping. Students who meet sea time and academic requirements will receive United States Coast Guard (USCG) and Standards of Certification and Watch Keeping (STCW) credentials. Graduates of the program who have completed appropriate sea time and course work will be qualified to serve as officers on vessels of not more than 200 Gross Registered Tons upon Near Coastal, or Inland Waters. The goal of the Marine Transportation Program is to provide graduates with the credentials and general education required to excel in Alaskan waters and beyond” (University of Alaska Southeast Academic Catalog 2021-2022).

Graduates with an Engine Room Emphasis have the training and credentials to work in the engine department or in shore side maritime trades. In addition, graduates will have met the academic and practical examination requirements for certification as a Qualified Member of the Engine Department (QMED) with an Oiler endorsement.

**“Engine Room Emphasis:** Engine Room Emphasis coursework provides the training and credentials necessary to begin a career in the engine room side of the Marine Transportation Program industry. Successful graduates will have met the academic and practical examination requirement for certification as a Qualified Member of the Engine Department (QMED) with an Oiler endorsement. The Engine Room Emphasis incorporates a four-month (120-day) internship at sea. The internship with the 60 days of sea time granted for successful completion of the UAS/Oiler program provides the sea-time necessary for the USCG endorsement” (University of Alaska Southeast Academic Catalog 2021-2022).

The UAS Marine Transportation Program also offers two Occupational Endorsements: Marine Transportation and Maritime & Multi-skilled Worker. These occupational endorsements provide students industry specific knowledge in a comparably short amount of time (under 30 credit hours).

The Marine Transportation O.E. focuses on providing training for mariners to advance in a wide variety of positions and vessels in the maritime industry. The courses and instructors are US Coast Guard approved for testing in class.

The Maritime and Multi-skilled Worker (M&MSW) O.E. provides training in basic maritime and industrial skills. This particular endorsement emphasizes the student's preparation as an entry-level worker. The M&MSW Program is a United States Coast Guard approved QMED (Qualified Member of Engine Department) Oiler class. Successful completion of the Program, along with accruing necessary sea service, permits the issuance of a USCG QMED Oiler credential without any further testing

The Marine Transportation minor benefits students who may end up working on vessels or in the maritime industry. The courses provide a well-rounded knowledge of vessel operations on small passenger vessels, charter fishing vessels, towing vessels, or small research vessels. Graduates who meet sea service and other Federal requirements are eligible to be US Coast Guard credentialed and licensed.

### **Program Student Learning Outcomes (SLOs)**

Students will demonstrate a high degree of proficiency in basic seamanship techniques.

Students will demonstrate a mastery of shipboard safety and emergency response procedures.

Students will demonstrate basic maintenance and troubleshooting of shipboard systems.

Students will demonstrate a sound knowledge of safe navigation practices.

Students will make use of appropriate reference materials regarding Merchant Mariner Credentials, licensing, and education in their chosen maritime sector.

Students will operate safely while participating in program activities and utilizing program equipment.

### **How Data Is Collected Concerning Student Learning Outcomes**

The Marine Transportation Degree program is made up of a number of USCG-approved courses. The USCG provides a framework concerning practical competencies and academic testing in reference to the successful completion of licenses and endorsements. Those tasks, commonly referred to as "check offs" in the maritime industry, are the basis for our individual course Student Learning Outcomes. The program's overall Student Learning Outcomes are extrapolated from those requirements. As students complete individual USCG-approved classes, they are issued a course completion certificate required to apply for USCG Merchant Mariner Credentials. The marine transportation department keeps records of these certificates, allowing us to track an individual student's progress. Many of our students are successfully employed in the maritime industry as a direct result of the course work they have completed.

### **Data Collected on Student Learning Outcomes during Academic Year 2023**

The Marine Transportation department asks students to complete course evaluations at the end of every class. The faculty routinely review these course evaluations in an effort to better understand our strengths and weaknesses. The course evaluations are the primary source of information concerning the educational needs of students and industry.

### **Strengths:**

- UAS Ketchikan is member of the Alaska Maritime Education Consortium (AMEC) and received a designation as a Center of Excellence for Domestic Maritime Workforce Training and Education from the U.S. Department of Transportation's Maritime Administration (MARAD).
- The Marine Transportation Degree program is unique not just to the UA system but across the state of Alaska.
- The Marine Transportation Degree program offers both an engineering and a deck emphasis.
- There is now a clear path to transfer Merchant Mariner, Military, and industry specific credentials into equivalent UAS course credits.
- Serves the industry specific training needs of individual companies and organizations.
- Provides training to individuals who may not require a degree, but need specific endorsements, licenses, or simulator training to maintain or further their maritime career.
- Provides a heavy emphasis on practical hands-on training across all courses contained within the degree program. Student's course evaluations routinely site this as the most useful portion of a class.
- The present line up of staff and faculty represent diverse sectors of the maritime industry.
- UAS Ketchikan houses high quality diesel and welding labs.
- We have developed curriculum for an Able Seaman course which is presently being delivered online
- We developed a maintenance plan for equipment as well as the simulation facility. This will require ongoing funding for that plan.
- UAS Ketchikan houses a Wartsila DNV-GL Class A Full Mission Bridge. This facility is the only Class A Wartsila facility in the state, and one of only two simulation facilities in Alaska. This has attracted maritime professionals from as far away as the Gulf of Mexico, and San Francisco. This facility serves the needs of our students as well as The Southeast Alaska Sea Pilots Association.
- We hired a Maritime Educational Specialist to assist with course approvals, audits, compliance, and online curriculum development

### **Weaknesses:**

- Our full-time staff and faculty complement is small. We are heavily reliant on adjunct faculty, and require funding to meet the demand for additional educational capacity.
- Our QMED MMSW course relies on the Alaska Marine Highway to accept interns to complete sea service in the engine room.
- Some of our courses rely on equipment that is aging and costly to repair. For example the mini bridges in the navigation lab are in need of an upgrade
- Many potential students are working mariners, or after taking a few courses become working mariners. This means that they are often aboard ship for periods of time ranging from a few weeks to a few months, without a way to complete course work, or even easily communicate.
- We do not have a system in place to track our students after they leave the program.
- With such a small faculty we are not able to develop new course offerings in house, or rapidly adapt to a changing educational environment.
- Budget constraints have severely impacted our ability to market, promote and otherwise expand awareness of our maritime training course offerings.

- Students must travel to Ketchikan for many of our classes. This can often be cost prohibitive.
- USCG oversight of all Maritime Training Programs nationwide has increased. This resulted in an aggressive USCG audit schedule which will continue for the foreseeable future. These audits require faculty and staff resources for preparation, routinely pulling these personnel away from their regular work duties.
- The USCG has greatly increased their oversight and scrutiny of USCG approved curriculum. The USCG NMC is also severely understaffed. These two factors have resulted in significant delays to receiving reapproval for much of our curriculum, with the first evaluation of curriculum by the NMC taking anywhere from 3 to 6 months. It is unrealistic to think that faculty can teach courses and work with the NMC to audit, maintain, and develop curriculum.
- Our program continues to see high turnover in both faculty and staff positions. Many other local employers are able to poach our team members. Our pay scale for staff and faculty is not competitive. We are relying on the additional educational benefits of working at a university to attract talent. However, once these individuals complete a degree or program they leave. We anticipate the loss of additional program assistants and even the aforementioned education specialist.

#### **Data Evaluation of Student Learning Outcomes from the Previous Academic Year:**

Fall of 2022 saw 1 graduate of the Maritime Transportation AAS degree program. 1 student earned the Marine Transportation OE in the spring of 2023. 6 students earned the Maritime and Multiskilled Worker OE in the spring of 2023. Our records indicate that we served 188 students in the fall of 2022 for 316 credit hours, and 277 students in the spring of 2023 for 306 credit hours.

#### **Plans to Improve Student Learning:**

As a result of the end of year analysis of the Marine Transportation program the following improvements are recommended:

- Explore the possibility of hiring additional faculty members for both the deck and engine room emphasis.
- Expand the adjunct professor pool.
- Allocate funds to send potential adjunct faculty to USCG required Train the Trainer courses
- Explore other avenues for students to complete internships to earn sea service towards maritime credentials.
- Purchase additional equipment so that we are not reliant on access to third party facilities and equipment.
- Hire a staff position to assist with securing funding for students, grants, and expanding awareness of our program
- Develop a system of tracking student career success.
- Update materials, facilities, and equipment used during maritime courses.
- Continue to review and update individual course Student Learning Outcomes.
- Continue to develop curriculum that can be presented asynchronously, or remotely delivered.

