

Strategic Planning and Budget Advisory Committee (SPBAC)
FY20 Budget Increment Request Form



PURPOSE: Use this form to propose new UAS operating fund increments or initiatives (e.g. legislative requests for programs or positions) which require either NEW resources or a major internal REALLOCATION of existing funding. Individuals preparing proposals should consult with their dean or director prior to submitting to SPBAC.

For more routine and/or modest proposals affecting existing department or program budgets, please consult UAS Personnel Budget Procedures & Practices (<http://uas.alaska.edu/budget/docs/budget/uas-personnel-budget-procedures-practices.pdf>).

Increment Title:	UAS Maritime Training Center Engine Room Tenure Track Faculty Position	
Campus/Department or Program:	Ketchikan	
Submitted by:	Priscilla Schulte	Date: 8/3/18

A. Program/Position Description *(Provide a description of the request and of its overall purpose)*

UAS Ketchikan (UASK) requests \$85,000 new operating funds for a tenure track faculty position in Power Technology, Engine Room emphasis. This position provides instruction and coordination for the U.S. Coast Guard-approved Qualified Member of the Engine Department (QMED) program as well as the Maritime & Multi Skilled Worker (MMSW) Program and other power technology classes for maritime companies including Vigor Alaska, Alaska Marine Highway System, Allen Marine Tours, Trident Seafoods, commercial fishermen among others.

The University of Alaska Southeast Maritime Training Center is the only U.S. Coast Guard-approved training facility in the region providing the training and education a person needs to obtain a QMED credential. The University of Alaska Southeast is the only accredited university in Alaska to offer an Associate of Applied Science in Marine Transportation, Engine Room Emphasis in the State of Alaska.

B. Need & Justification for Program/Position *(Explain why the request is needed, including enhancement of existing programs, response to market demand, taking advantage of new opportunities. If applicable, include the number of students affected and specific employer demand met.)*

According to Southeast Alaska by the Numbers, 2017, a publication by SE Conference, there are over 6300 maritime jobs, accounting for 10 percent of all regional earnings and 9 percent of all jobs. Multiple statewide studies on the impact of the maritime sector on Alaska’s economy have been conducted over the last 5 years. Each study has found the need for an increase in maritime training and education, particularly in vessel engine maintenance and repair for both licensed and unlicensed positions.

The Qualified Member of the Engine Department (QMED) / Maritime & Multi Skilled Worker (MMSW) Program is in its sixth year of being offered. The program was developed with a 2-year Federal Title III-funded grant and has been supported with TVEP funds since 2013. A maximum of 12 students can take the program each fall. The program is a 12-week, 5-days a week program that covers diesel engine maintenance and repair, naval architecture, marine electrical systems, hydraulics maintenance and repair, refrigeration maintenance and repair and welding. Additionally, students in the QMED track often complete the maritime Basic Training requirement for employment with the Alaska Marine Highway. Completing the QMED track also decreases the required sea time from 180 to 120 days for the credential.

Since the first offering in fall 2013, over 100 students have taken one or more of the courses offered in Marine Engineering, 46 of whom completed the 19-credit U.S. Coast Guard-approved QMED / MMSW Program. Ninety three percent of the students who completed the program are employed in the maritime sector.

The demand from industry has been strong and the outlook for continued need for a skilled workforce in both vessel engine rooms and maritime support industries is positive, even given the state’s economic downturn.

The program has garnered strong support from all sectors of the maritime industry. The program aligns with UA statewide, UAS and local workforce development goals and initiatives.

Student Enrollments and Outcomes:

The success of the program can be measured by the credentials received and job placement. Since approval, the QMED / MMSW curriculum has been delivered five times, in the fall semesters of 2013-2017.

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018
Enrollment	9	12	10	6	9	12
Completion	8	12	10	6	7	
Employment or Internship	9	11	9	4	5	
Further Education		1		1	1	

**Currently registered for program*

Of the 9 students who started the fall 2013 program, 1 was hired by Vigor Alaska before completing the entire program. Of the 8 students who graduated from the 2013 class, 7 students are working in the maritime industry and one is employed by Lynden Transport. Seven students obtained the QMED credential and their Ratings Forming Part of an Engineering Watch (RFPEW) rating. One student has advanced to Junior Engineer and another has obtained his Able Seafarer Engine rating. Five of the seven graduates are employed with the Alaska Marine Highway System (AMHS) and the other two are in private maritime industry.

The 12 students in the 2014 MMSW class, 11 of the 12 are employed in the maritime industry. Four students took and completed AMHS internships of which 2 are employed with AMHS and 2 were on the list to be hired. An additional 4 students are current AMHS employees. One student is working for Vigor Alaska; one for Tyler Rental; and one enrolled in the UAS Diesel Program in Juneau. For credentialing, 5 students have received their QMED credentials, also have the RFPEW rating and one student additionally has the Able Seafarer Engine rating. It is important to note that some students chose to seek shore-side employment in maritime-related industries instead of going to sea and working towards the QMED credential.

There were 10 students who completed the fall 2015 program. Three students, all of whom are recent high school graduates, started internships with AMHS in January 2016. One student (another recent high school graduate) went to aircraft maintenance school to become an A&P Mechanic. The other 6 students are employed with AMHS in the Steward Department and have been getting the sea time required to advance to QMED.

The 2016 cohort was somewhat smaller due to a change in the funding structure for AMHS employees. Three of the students began internships with the AMHS in spring 2017, 1 was hired by Vigor Alaska and 2 are exploring other maritime employment.

Nine students started the 2017 program and 7 completed. Three students completed internships with AMHS in spring 2018, 2 are employed with private maritime industry businesses, 1 has enrolled in the AAS in Marine Transportation and will continue taking classes and 1 is exploring a variety of maritime careers.

Maritime Industry Demand:

In December 2017, President Trump signed into law the National Defense Authorization Act which provides provisions for the development of Domestic Maritime Centers of Excellence. According to the sponsor of the bill, Texas Representative Gene Green, “The Domestic Maritime Centers of Excellence Act authorizes federal designation of community and technical college “centers of excellence” to help provide technical education and training programs that will secure the talent pipeline for the nation’s maritime workforce. A shortage of qualified maritime workers has been identified by U.S. industry leaders as the primary challenge to growth in the domestic maritime sector. The maritime industry requires technical skills training and licensing – even for entry-level positions. To earn appropriate credentials for each level of maritime industry employment, workers must complete regular training. Community and technical colleges can provide this training – on an affordable basis.”

The University of Alaska plans to apply for designation and funding as a Domestic Maritime Center of Excellence and the UAS Maritime Training Center offers the training addressed in this federal legislation. The proposed faculty position offers classes that meet the US Coast Guard requirements for work in marine engine rooms.

In April 2013, the Alaska Department of Commerce, Community and Economic Development published the “Alaska Marine Trades and Services Business Retention and Expansion Survey Results.” The Division of Economic Development of the DOCCED conducted the maritime sector survey to determine the business climate including growth expectations in the coming years. Over all, the majority of the respondents expected growth in the 5-10 year range. The largest constraint to growth noted by businesses was the lack of a skilled workforce.¹

In 2014, a series of reports were published from the State of Alaska Department of Labor and Workforce Development, the McDowell Group and Southeast Conference. A Maritime Workforce Development plan was published the same year as a combined effort by Alaska State Agencies, the University of Alaska and Alaska Fisheries, Seafood and Marine Industry Employers. The maritime industry sector represents the largest private employer in the state and is a significant economic driver in the state’s economy, behind oil and gas. Over 500 firms statewide employ more than 70,000 people. Noted in the Alaska Maritime Workforce Development plan, “Maritime employers note that the number of Alaskans who have the necessary skills to fill these positions is too low to meet the demand. An aging or “graying” workforce was identified by many employers.²”

The plan also states that the “maritime workforce shares a number of cross-cutting skills among occupations. Employees with transferable or cross-cutting skills are able to work in a variety of occupations within the maritime sector. Prioritizing the development of these skill sets and weaving them into a variety of programs can result in a more cross-trained, flexible workforce.³”

Since 2014, the State of Alaska Department of Labor and Workforce Development has been tracking employment in the maritime sector and has published multiple articles and projections in Trends, a monthly publication of the DOLWD. Each of these articles shows continued need for maritime training as employment projections continue to be positive. Even with the downturn of the Alaskan economy, the demand for maritime workers is positive. Southeast Conference, a non-profit organization made up of municipalities, employers, educators and other agencies in Southeast Alaska, has been tracking the maritime sector in our region since 2012. They have published reports on the continuing demand for maritime sector employees even as the economy in Southeast Alaska has declined.

Alaska Business Monthly has published multiple articles on the revitalization of the ship building and ship repair industry in Southeast Alaska and the need to train a local and Alaskan workforce to fill the jobs being created by this maritime industry.

¹ Alaska Marine Trades and Services Business Retention and Expansion Survey Results, published April 2013, page 13.

² Alaska Maritime Workforce Development Plan, published May 2014, page 5.

³ Alaska Maritime Workforce Development Plan, published May 2014, page 5.

Alignment with State Workforce Development Plans:

The QMED / MMSW program trains employees for Alaska's marine transportation industry, ship building and repair, and heavy industrial career fields. The program supports UA Goals 2 and 4, Shaping Alaska's Future, FSMI, UA Career Clusters, the Alaska Maritime Workforce Development Plan, UAS Strategic and Assessment Plan, and UASK Strategic Enrollment Management Plan.

The program trains employees for Alaska's marine transportation industry, the maritime shore support industry, the ship building and repair industry as well as the tourism and fisheries industries. The program supports the UA Career Clusters in the following areas: Transportation, Distribution & Logistics; and Hospitality & Tourism. The QMED / MMSW program focuses directly on marine industrial skills, including hydraulics, refrigeration, welding, electrical systems and diesel engines, addresses a wide range of career fields in the maritime sector and serves organizations including the Alaska Marine Highway System, Vigor Alaska, among others.

The program supports Shaping Alaska's Future Theme 3 "Productive Partnerships with Community and Industry" and the statewide Fisheries Maritime Seafood Initiative. The program was developed by request of industry and in partnership with industry. The faculty member has built industry relationships and is forming partnerships on behalf of the program with multiple agencies and businesses including Ketchikan Indian Community, the Alaska Marine Highway System, AMAK towing and Vigor Alaska.

It also directly supports the Alaska Maritime Workforce Development Plan Strategy 1: Growing Awareness of Occupations and Develop Career Pathways by working with other education/training and career service providers and resources. It supports Strategy 3: Train Alaskans for Maritime Careers by improving access to maritime training and education programs. It supports Strategy 4: Support Recruitment and Retention by promoting this program to target Alaska residents for workforce development, with particular attention to coastal and Alaska Native communities, former military personnel and others who are under represented in the maritime workforce sector.

In support of the Alaska Maritime Workforce Development Plan, the Power Technology faculty member serves on two working groups, the Vessel Repair and Maintenance and the Refrigeration work groups. These working groups include members from UAA's MatSu and Kodiak campuses as well as AVTEC and the faculty member works with these entities to better serve the maritime industry across the state.

Industry Support:

The program was developed based on industry needs. It addresses two key maritime industry sectors that have worker shortages: marine engine room oilers and shipbuilding and repair workers.

The Alaska Marine Highway System is a strong supporter of the program. The Alaska Marine Highway System has funded employees to enroll in the program and is now providing the at-sea internships to our graduates through a formal agreement that was signed in 2015. They have donated pumps, valves and refrigeration compressors as well as smaller but equally vital items such as vessel plans for classroom use. They have also provided vessel familiarization tours to give students an introduction to the duties that are expected of a Marine Oiler and their function within the ship's engine department.

Tyler Rental and the Ward Cove Industrial Group have been very generous, providing space and equipment for the rigging portion of the QMED / MMSW program. They have provided crane time and class space for rigging demonstrations as well as instruction on assembly of rigging devices.

Vigor Alaska laid the keels of the Alaska Marine Highway System (AMHS) Alaska class ferries in Ketchikan in 2015 and they are well underway with the construction of these two ferries and have hired MMSW graduates. They have donated equipment to the program and contracted with UASK in Summer 2015 to teach TIG welding to 10 of their employees.

UASK is a partner in the Vigor-Maritime Works Sector Partnership aimed at training Alaskans for Alaskan jobs, specifically in the maritime industry.

UAS Ketchikan is also a member of Alaska Processing Industry Careers Consortium and is one of the APICC training partners for maritime industry in the State. UASK held a Maritime Industry Stakeholders meeting in January 2017 to further industry engagement in the maritime programs. The goal of that meeting was to hear from industry what their training needs are now and in the future and to build strong relationships with a wider variety of maritime industries. Participants supported the idea of an annual meeting and were verbally supportive of the direction UASK is going in training a new maritime industry workforce.

UASK collaborates with other UA campuses, including Kodiak and Homer to offer maritime course work. The campus collaborates with AVTEC in sharing maritime instructors for the marine oiler program, particularly in marine electrical instruction.

C. UAS Mission & Core Themes (*Identify which aspects of the UAS Mission and Core Themes this request supports and explain how it advances the mission and themes.*)

The program supports the UAS Strategic & Assessment Plan in the core themes of student success; teaching and learning and community engagement. The breadth of programs available to students has increased with this program. The faculty position continues to expand maritime course offerings specifically for the maritime industry by reaching out to new maritime industry sectors. It also directly supports UASK strategic enrollment management plan.

D. UA Statewide Strategic Investments (*Identify UA Goal, Measure, and strategies aligned with this request. What would be the anticipated impact on the measure?)*

UA Goal 2: Provide Alaska's skilled workforce. The maritime sector has a broad range of skilled workers who need some training and education beyond high school. UAS Maritime Training Center offers a broad range of the training needed. The QMED / MMSW program teaches the knowledge and skills necessary to begin a career in the engine department of large vessels, a critical area where there is a shortage of trained workers.

UA Goal 4: Increase degree attainment. UAS Ketchikan is the only campus in Alaska that offers a degree in Marine Transportation with two emphasis areas. A student can focus on deck operations if they are interested in becoming a captain or pilot or they can focus on the engine department if they are interested in becoming a licensed engineer. UAS Ketchikan has seen an increase in interest in both these degree tracks and enrollment is increasing in the degree program.

E. How does the increment promote academic excellence, optimize existing capacity, and/or create efficiencies or cost savings?

In 2015, the program was reevaluated by the USCG. During this process, Assistant Professor of Power Technology Larry O'Loane refocused the program's supporting documents to align with the requirements of the International Maritime Organization (IMO). The IMO's primary purpose is to develop and maintain a comprehensive regulatory framework for shipping including safety, environmental concerns, legal matters, technical co-operation, maritime security and the efficiency of shipping. The process of realigning these documents to meet IMO standards took approximately 6 months and represents the current curriculum being offered. Through regular program assessment and adjustments, UAS Ketchikan is promoting academic excellence within the maritime trades. Students are learning the most current regulations and best practices from the maritime industry.

F. Budget (*Explain the amount of funds requested for non-personal services expenses such as salary and benefits, travel, contractual, commodities, and capital expenditures. Provide a brief description of the expenditures.*)

FTE: 1 positions of UNAC Faculty type

(Provide the number/fraction of full-time equivalent positions requested and type, e.g. faculty or staff.)

Category	Amount	Description
Salary and Benefits	85,000	Fulltime 9mo UNAC faculty position
Travel	0	
Contractual	0	
Commodities	0	
Capital Expenditures	0	
Total Requested:	85,000	

G. Facilities or other resources (Explain what facilities needs might be associated with this request—e.g. office space, lab, shop, IT infrastructure, larger equipment)

No new infrastructure is needed.

H. Review by Dean/Director

Dean/Director signature reflecting consultation about proposed increment/initiative

SPBAC Recommendation to Executive Cabinet:

Pursue funding through: Legislative Request Institutional reallocation School reallocation Other

Do not pursue funding at this time

SPBAC comments to Executive Cabinet:

UAS Mission

The mission of the University of Alaska Southeast is student learning enhanced by faculty scholarship, undergraduate research and creative activities, community engagement, and the cultures and environment of Southeast Alaska.

Core Themes

Student Success – provide the academic support and student services that facilitate student access and completion of educational goals

Teaching and Learning – provide a broad range of programs and services resulting in student engagement and empowerment for academic excellence

Community Engagement – provide programs and services that connect with local, state, national, and international entities on programs, events, services, and research that respond to the economic, environmental, social, and cultural needs and resources of Southeast Alaska

Research and Creative Expression – provide programs and services that support research, scholarship, and creative expression by faculty and students

UA Statewide Strategic Investments

Goals & Measures

Goal #1: Contribute to Alaska's Economic Development

Measure a. Increase STEM graduates

Measure b. Increase number of invention disclosures

Goal #2: Provide Alaska's Skilled Workforce

Measure a. Increase percentage of educators hired

Measure b. Double number of health program completions

Goal #3: Grow Our World Class Research

Measure a. Lead the world in Arctic related research

Measure b. Increase research expenditures

Goal #4: Increase Degree Attainment

Measure a. Increase enrollment

Measure b. Increase completions

Strategy Suggestions

- Partnerships with K-12
- Building Competitive Capacity
- Marketing & Recruiting
- Partnerships with Industry
- Innovative Program Delivery
- Faculty & Staff Development
- Student Advising & Support
- Financial Aid