



Board of Regents Program Action Request
Proposal to Add or Change a Program of Study
 University of Alaska

1a. UA University UAF and UAS	1b. School or College UAF College of Fisheries and Ocean Science and UAS School of Arts and Sciences	1c. Department or Program UAF Department of Fisheries and UAS Public Administration Program																																					
2. Complete Program Title: Master of Marine Policy (MMP)																																							
3. Type of Program:																																							
Undergraduate Certificate <input type="checkbox"/>	Associate <input type="checkbox"/>	Baccalaureate <input type="checkbox"/>																																					
Master's <input checked="" type="checkbox"/>	Doctorate <input type="checkbox"/>	Post-Baccalaureate Certificate <input type="checkbox"/>																																					
4. Type of Action: <input checked="" type="checkbox"/> Add <input type="checkbox"/> Change																																							
Implementation Semester: Fall Year: 2022																																							
6. Projected Revenue and Expenditure Summary:																																							
Provide information for the 5 th year after program change approval if a baccalaureate or doctoral degree program; for the 3 rd year after program approval if a master's or associate degree program; or for the 2 nd year after program approval if a graduate or undergraduate certificate. If information is provided for another year, specify () and explain in the program summary attached. Note that revenues and expenditures are not always entirely new; some may be current (see 7d.)																																							
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Page # of attached summary where the budget is discussed, including initial phase-in: 26-27																																							
7. Budget Status. Items a., b., and c. indicate the source(s) of the general fund revenue specified in item 6. If any grants or contracts will supply revenue needed by the program indicate amount anticipated and expiration date, if applicable.																																							
Revenue source	Continuing	One-Time																																					
a. In current legislative budget request																																							
b. Additional appropriation required	\$ 320,000.00	\$ 60,000.00																																					
c. Funded through new internal UA university redistribution																																							
d. Funds currently committed to the program [1]																																							
e. Funded all or in part by external funds, expiration date																																							
f. Other funding source (specify type):																																							
8. Facilities. New or substantially (>\$25,000 cost) renovated facilities will be required. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																							
If yes, discuss the extent, probable cost, and anticipated funding source(s), in addition to those listed in sections 6 and 7 above.																																							
9. Projected Enrollments (headcount of majors). If this is a program discontinuation request, project the teach-out enrollments.																																							
Year 1: <input type="text" value="6"/>	Year 2: <input type="text" value="10"/>	Year 3: <input type="text" value="20"/>																																					
Year 4: <input type="text" value="30"/>																																							
Page number of attached summary where demand for this program is discussed: 12																																							
10. Number² of new TA or faculty hires anticipated (or number of positions eliminated if a program discontinuation):	11. Number² of TAs or faculty to be reassigned:																																						
Graduate TA <input type="text" value="0"/>	Graduate TA <input type="text" value="0"/>																																						
Adjunct <input type="text" value="0"/>	Adjunct <input type="text" value="0"/>																																						
Term <input type="text" value="0"/>	Term <input type="text" value="0"/>																																						
Tenure track <input type="text" value="2"/>	Tenure track <input type="text" value="0"/>																																						
Former assignment of any reassigned faculty: For more information see attached summary page:																																							
12. Other programs affected by the proposed action, including those at other campuses (please list):																																							

Program Affected	Anticipated Effect
other UAF Graduate Programs	no adverse effects
other UAS Graduate Programs	no adverse effects
Page number of attached summary where effects on other programs are discussed: <u>11-12</u>	
13. Specialized accreditation or other external program certification needed or anticipated. List all that apply or 'none':	14. Aligns with University or campus mission, goals, core themes, and objectives (list):
NWCCU	Alignment with both UAF and UAS strategic goals is discussed in the proposal and prospectus.
	Page in attached summary where alignment is discussed: 10, 24
15. State needs met by this program (list):	16. Program is initially planned to be: (check all that apply)
Leadership of state/federal resource management agencies.	Available to students attending classes at campuses <input checked="" type="checkbox"/>
Train Marine Policy specialists.	Available to students via e-Learning <input checked="" type="checkbox"/>
	Partially available to students via e-Learning <input type="checkbox"/>
	Page # in attached summary where e-Learning is discussed:
17. If this program is an addition, would program be eligible for State's Eligible Training Provider List program?	
Yes <input type="checkbox"/>	No <input type="checkbox"/> (Click here for more information)
Submitted by: <u>Anupma Prakash</u>	Date: April 12, 2022
Chancellor/Provost <u>[Signature]</u>	Date:
Consensus support of AC <input checked="" type="checkbox"/>	Not supported by AC <input type="checkbox"/>
Recommend approval by VPASR <u>[Signature]</u>	Date: 4/14/2022
Recommend disapproval by VPASR	Date:

²Net FTE (full-time equivalents). For example, if a faculty member will be reassigned from another program, but his/her original program will hire a replacement, there is one net new faculty member. Use fractions if appropriate. Graduate TAs are normally 0.5 FTE. The numbers should be consistent with the revenue/expenditure information provided.

Attachments: Summary of Degree or Certificate Program Proposal Other (optional)

Revised: 11/11/2019

[1] Sometimes the courses required by a new degree or certificate program are already being taught by a UA university, e.g., as a minor requirement. Similarly, other program needs like equipment may already be owned. 100% of the value is indicated even though the course or other resource may be shared.

The following motion passed the Faculty Senate meeting #263 on April 4, 2022

Motion to Create a Masters of Marine Policy

MOTION:

The UAF Faculty Senate moves to approve a new Masters of Marine Policy, housed in the UAF School of Fisheries and Ocean Sciences and the UAS School of Arts & Sciences.

The Master of Marine Policy (MMP) degree will be jointly offered by UAS and UAF, with UAF acting as the lead institution. Graduates will receive a diploma indicating that the degree is awarded jointly by UAF and UAS. Applications for admission to the MMP program will be processed through the UAF Graduate School. Enrolled students may select from various required and elective courses offered by UAF or UAS. Most of these courses can be taken in-person or remotely via synchronous or asynchronous modalities. UAF tuition and fees will apply to courses taken through UAF, while UAS tuition and fees will apply to courses taken through UAS.

Rationale: The joint UAF-UAS Master of Marine Policy (MMP) is a 30-credit hour non-thesis graduate degree program designed to complement existing University of Alaska graduate programs and to meet a need unfilled by those programs. The University of Alaska houses outstanding graduate training and research programs that explore physical and biological aspects of marine systems. Cultural and social dimensions of marine resource systems are addressed in courses offered by University of Alaska faculty in Alaska Native Studies and Rural Development, Anthropology, Fisheries, Geography, Political Science, and Resource Management and Environment. In addition, the marine economy's business and entrepreneurship aspects are the focus of the STEM Blue MBA offered by the UAF College of Business and Security Management (CBSM) in cooperation with CFOS and the UAF Alaska Blue Economy Center. Together, these programs and centers support graduate education covering a broad perspective of marine social-ecological systems. However, they do not provide graduate students with a comprehensive background in the legal and policy context of utilizing and managing marine social-ecological systems. Consequently, graduates hired for their technical expertise often find themselves promoted to positions focussed on marine policy yet lack formal training in the legal, policy, and cultural aspects of living marine resource management. It is anticipated that MMP graduates will be well-positioned to compete for marine resource management-focused positions in local, state, federal, and tribal government, agencies, and organizations, non-governmental organizations, and private industry in Alaska and elsewhere.

The MMP degree program engages students in a curriculum that instills an integrated background in four core dimensions of Marine Policy, (1) Living Marine Resources and their Management, (2) Analytic Methods, (3) Law and Policy, and (4) Economics, Development, and Sustainability. The wide selection of courses that satisfy these core and elective requirements facilitates individualization of the curriculum to support each student's goals. Courses are drawn from the Alaska Native Studies, Anthropology, Arctic and Northern Studies, Biology, Cross-cultural Studies, Economics, Fisheries, Geography, Marine Science and Limnology, Natural

The following motion passed the Faculty Senate meeting #263 on April 4, 2022

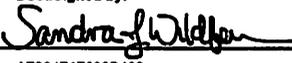
Resource Management, Political Science, Public Administration, Rural Development, and Statistics programs at UAF and UAS. Because most of these courses are already offered at remote sites through video-conferencing, this new degree program can serve prospective students throughout Alaska and beyond.

Federal and State waters off Alaska's coast comprise nearly one-third of the U.S. total. These pristine waters support abundant living marine resources, hold substantial petroleum, mineral, and alternative energy resources, serve as vital global shipping routes, and are the cultural heritage of Alaska's people. In 2019, Alaska's fisheries produced 60% of U.S. landings by weight and 32% by value. By itself, Alaska ranks as the world's seventh-greatest capture fishery—slightly behind Peru, on par with Japan, and well ahead of Vietnam and Norway. Management of Alaska's fisheries is globally recognized for adherence to sound science and policy to support these sustainable marine resources.

The need for science and policymaking expertise is ever more pressing as the changing climate affects marine ecosystems. New science is needed to anticipate changes in biological productivity and the distribution of species. New analysis is needed to identify resource management policies resilient to shifts in ecological systems and their volatility. Recognition that the design and implementation of effective marine policy requires a working knowledge of natural and social sciences has inspired the development of graduate and undergraduate programs in Marine Affairs and Marine Policy in other coastal states.

The University of Alaska has a long history of providing expertise to support state and federal management of living marine resources and environmental assessments related to outer continental shelf resource development and marine transportation. In addition, University of Alaska graduates hold leadership roles in state and federal agencies, tribal, corporate, and non-profit organizations that engage in governance, management, and policy design to support Alaska's fisheries, ecosystems, and the communities that depend on Alaska's living marine resources.

EFFECTIVE: Fall 2022

DocuSigned by:

AF33474F608B403...

Sandra Wildfeuer, UAF Faculty Senate President

The following motion passed the Faculty Senate meeting #263 on April 4, 2022

The Chancellor: X Approves Vetoes Acknowledges

DocuSigned by:

Daniel M. White

Daniel M. White, UAF Chancellor

April 6, 2022

Date: _____

.: MASTER OF MARINE POLICY (MMP)

Export to PDF
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In Workflow

1. FISH Chair (acseitz@alaska.edu)
2. FO Curriculum Chair (slmincks@alaska.edu; pwestley@alaska.edu)
3. FO Dean (tmsutton@alaska.edu)
4. Faculty Senate Coordinator (jjruge@alaska.edu; aclindsoe@alaska.edu)
5. Graduate Curriculum Committee Chair (jlcarroll@alaska.edu)
6. Faculty Senate President (sjwildfeuer@alaska.edu)
7. Dean of Graduate School (ricollins@alaska.edu)
8. Provost (aprakash@alaska.edu)
9. Chancellor (aclindsoe@alaska.edu)
10. Registrar (hamcdonald@alaska.edu)
11. Registrar Processing (jjruge@alaska.edu; rhpik2@alaska.edu; slbarber2@alaska.edu)

Approval Path

1. Fri, 08 Oct 2021 23:38:51 GMT
Andrew Seitz (acseitz): Approved for FISH Chair
2. Mon, 01 Nov 2021 21:17:44 GMT
Peter Westley (pwestley): Rollback to Initiator
3. Wed, 03 Nov 2021 20:21:58 GMT
Andrew Seitz (acseitz): Approved for FISH Chair
4. Mon, 08 Nov 2021 23:12:44 GMT
Peter Westley (pwestley): Approved for FO Curriculum Chair
5. Mon, 08 Nov 2021 23:18:02 GMT
Trent Sutton (tmsutton): Approved for FO Dean
6. Tue, 09 Nov 2021 04:14:48 GMT
Ashley Lindsoe (aclindsoe): Approved for Faculty Senate Coordinator
7. Mon, 21 Mar 2022 23:04:25 GMT
Jennifer Carroll (jlcarroll): Approved for Graduate Curriculum Committee Chair

New Program Proposal

Date Submitted: Wed, 03 Nov 2021 15:54:29 GMT

Viewing: . : Master of Marine Policy (MMP)

Last edit: Thu, 24 Mar 2022 18:44:42 GMT by Janeen Culbertson

Changes proposed by: kcriddle

Please select Major Change if you are changing any courses in the Program Requirement section. Answering the question incorrectly could result in the curriculum being returned to you. Please click the Help bubble for more information.

Faculty Contact(s)

Name	Phone	Email
Keith Criddle	9077965449	kcriddle@alaska.edu

Academic Level
Graduate

Effective Catalog
2022 - 2023

Department
Fisheries

College
College of Fisheries and Ocean Sciences

2 : Master of Marine Policy (MMP)

Certificate or Degree Type

Master - Other (MO)

Program Title

Master of Marine Policy (MMP)

Abbreviated Program Title

Master of Marine Policy

Program Code

.

Brief Program Statement

The design and implementation of effective Marine Policy entails quantitative and qualitative analyses pertinent to the oversight and management of marine resources: the study of the potential and actual social, economic, legal, environmental, and ecological consequences of alternative policies; an objective exploration of what is, what was, and what could be. Graduates will be equipped with the tools and background to conduct prospective analyses of the anticipated outcomes of alternative management actions and retrospective analyses of actual outcomes of management actions.

The MMP degree program engages students in a curriculum that instills an integrated background in four core dimensions of Marine Policy, (1) Living Marine Resources and their Management, (2) Analytic Methods, (3) Law and Policy, and (4) Economics, Development, and Sustainability. The wide selection of courses that satisfy these core and elective requirements facilitates individualization of the curriculum to support each student's goals. Courses are drawn from the Alaska Native Studies, Anthropology, Arctic and Northern Studies, Biology, Cross-cultural Studies, Economics, Fisheries, Geography, Marine Science and Limnology, Natural Resource Management, Political Science, Public Administration, Rural Development, and Statistics programs at UAF and UAS. Because most of these courses are already offered in remote sites through video-conferencing, this degree program serves students throughout Alaska and beyond.

The Master of Marine Policy (MMP) degree is jointly offered by UAS and UAF, with UAF acting as the lead institution. Graduates will receive a diploma indicating that the degree is awarded jointly by UAF and UAS. Applications for admission to the MMP program will be processed through the UAF Graduate School. Enrolled students may select from various required and elective courses offered by UAF or UAS. Most of these courses can be taken in-person or remotely via synchronous or asynchronous modalities. UAF tuition and fees apply to courses taken through UAF, while UAS tuition and fees apply to courses taken through UAS. MMP program students are advised by the program coordinators.

Admissions Requirements

Students applying for this program must have a Bachelor of Arts or a Bachelor of Science with a minimum 3.0 GPA. Applicants are expected to be familiar with principles of mathematical optimization, statistical inference, and fishery science. Students will be admitted based on their academic preparation and the capacity of the program to meet their particular interests and needs. Admission requests will be reviewed throughout the year. There is no financial support for students in this program.

Requirements for the Degree (catalog layout copy of the program)

Minimum Requirements for Marine Policy M.M.P. Degree: 30 credits ¹

Code	Title	Credits
General University Requirements		
Complete the general university requirements. (http://catalog.uaf.edu/graduate/mastersdegrees/#generaluniversityrequirements)		
Master's Degree Requirements		
Complete the master's degree requirements. (http://catalog.uaf.edu/graduate/mastersdegrees/#masterofmarinestudies)		
Marine Policy Program Requirements		
Complete the following:		
FISH F671	Foundations of Marine Policy and Ocean Governance	3
Complete one of the following internships with a federal, state, local, or tribal government, a marine-dependent industry, or marine-focused NGO		
FISH F690	Marine Policy Internship	2-6
NRM F613/ANTH F617/BIOL F613	Resilience Internship	
PADM S691 (https://catalog.uas.alaska.edu/search/?search=PADM+S691)	Senator Ted Stevens Legislative Internship Program	
CORE AREA REQUIREMENTS		
<i>LIVING MARINE RESOURCES AND THEIR MANAGEMENT</i>		

Complete one course from each of the following categories:

Living Marine Resources 3-4

Management of Living Marine Resources 2-3

ANALYTIC METHODS

Complete one course from one of the following categories: 2-4

Statistics

Modeling

Qualitative Analysis

LAW AND POLICY

Complete one course from one of the following categories: 2-3

Regulation

Law

Distributed Governance, Self-governance and Co-management

Policy Analysis

ECONOMICS, DEVELOPMENT AND SUSTAINABILITY

Complete one course from one of the following categories: 3

Development

Economics

Human Environments

Business and Public Administration

Complete two additional courses in one of the preceding categories as an area of concentration 4-8

Comprehensive Examination

Pass an oral or written comprehensive examination that demonstrates a Master's-level ability to synthesize and apply information and experience gained through coursework and the internship to the analysis of an historic, contemporary, or hypothetical marine policy issue.

Electives Approved electives to bring program credits to total 30 if needed ² 9-0

Total Credits 30-34

¹ Up to 6 of these credits may be 400-level courses.

² Electives will be selected based on student interest, relatedness to degree and approved by the MMP program co-coordinators.

CORE AREAS AND CATEGORIES

LIVING MARINE RESOURCES AND THEIR MANAGEMENT

Living Marine Resources

Code	Title	Credits
Complete at least one course in Living Marine Resources. 3-4		
BIOL S405 (https://catalog.uas.alaska.edu/search/?search=BIOL+S405)	Invertebrate Zoology	
BIOL S427 (https://catalog.uas.alaska.edu/search/?search=BIOL+S427)	Ichthyology	
FISH F427	Ichthyology	
BIOL S481 (https://catalog.uas.alaska.edu/search/?search=BIOL+S481)	Marine Ecology	
FISH F650	Fish Ecology	
FISH F633	Pacific Salmon Life Histories	
MSL F410	Marine Bird Ecology and Conservation	
MSL F610	Marine Biology	
MSL F619	Biology of Marine Mammals	
MSL F667	Ecology and Physiology of Marine Macroalgae	

Management of Living Marine Resources

Code	Title	Credits
Complete least one course in Management of Living Marine Resources. 2-3		
FISH F641	Ecosystem-based Fisheries Management	
FISH F645	Bioeconomic Modeling and Fisheries Management	

4 :: Master of Marine Policy (MMP)

FISH F687 Fisheries Management
RD F612 Traditional Ecological Knowledge

ANALYTIC METHODSComplete at least one of the following courses in Statistics, Modeling, or Qualitative Analysis.**Statistics**

Code	Title	Credits
FISH/MSL F604	Modern Applied Statistics for Fisheries	
FISH/MSL F627	Statistical Computing with R	
PADM S604 (https://catalog.uas.alaska.edu/search/?search=PADM+S604)	Applied Research Methods	
STAT S400 (https://catalog.uas.alaska.edu/search/?search=STAT+S400)	Statistical Computing with R	
STAT F401	Regression and Analysis of Variance	
STAT S401 (https://catalog.uas.alaska.edu/search/?search=STAT+S401)	Regression and Analysis of Variance	
STAT F461	Applied Multivariate Statistics	
STAT F605	Spatial Statistics	
STAT F611	Time Series	
STAT F621	Nonparametric Statistics	
STAT F631	Categorical Data Analysis	

Modeling

Code	Title	Credits
FISH F645	Bioeconomic Modeling and Fisheries Management	

Qualitative Analysis

Code	Title	Credits
ACNS F601	Research Methods and Sources in the North	
ANTH F412/FISH F613	Human-environment Research Methods	
PADM S604 (https://catalog.uas.alaska.edu/search/?search=PADM+S604)	Applied Research Methods	
RD F650	Community-based Research Methods	

LAW AND POLICY

Complete one or more of the following courses in Regulation, Law, Distributed Governance, Self-governance and Co-management, or Policy Analysis.

Regulation

Code	Title	Credits
FISH F681	The North Pacific Fishery Management Council	
FISH F683	Course FISH F683 Not Found	

Law

Code	Title	Credits
ACNS/PS F654	International Law and the Environment	
ANS/PS F425	Federal Indian Law and Alaska Natives	
FISH F672	Law and Fisheries	
NRM F407	Environmental Law	
PADM S618 (https://catalog.uas.alaska.edu/search/?search=PADM+S618)	Law for Public Managers	
RD F675	Federal Indian Law: Land, Water and Subsistence	

Distributed Governance, Self-governance and Co-management

Code	Title	Credits
ANS/RD F435	Participatory Policy-making in Tribal, State and Federal Government	
RD F651	Management Strategies for Rural Development	

Policy Analysis

Code	Title	Credits
ACNS/PS F669	Arctic Politics and Governance	
FISH F670	Quantitative Analysis for Marine Policy Decisions	
PADM S635 (https://catalog.uas.alaska.edu/search/?search=PADM+S635)	Natural Resource Policy	

ECONOMICS, DEVELOPMENT, AND SUSTAINABILITY

Complete one or more of the following courses in Development, Economics, Human Environments, or Business and Public Administration.

Development

Code	Title	Credits
Complete one of the following:		
FISH F674	Economic Development for Fish-dependent Communities	3
RD F430	Indigenous Economic Development and Entrepreneurship	
RD F625	Community Development Strategies: Principles and Practices	

Economics

Code	Title	Credits
Complete one of the following:		
ECON F434	Environmental Economics	3
ECON S435 (https://catalog.uas.alaska.edu/search/?search=ECON+S435)	Natural Resource/ Environmental Economics	
NRM/BIOL/ANTH F647	Sustainability in the Changing North	
PADM S625 (https://catalog.uas.alaska.edu/search/?search=PADM+S625)	Economics and Public Policy	
PADM S628 (https://catalog.uas.alaska.edu/search/?search=PADM+S628)	Public Financial Management	
PADM S637 (https://catalog.uas.alaska.edu/search/?search=PADM+S637)	Local and Global Sustainability	
PADM S693 (https://catalog.uas.alaska.edu/search/?search=PADM+S693)	Special Topics in Public Administration	
RD F630	Economic Development Policy and Entrepreneurship in Rural Alaska: Challenges and Opportunities	

Human Environments

Code	Title	Credits
Complete one of the following:		
FISH F611	Human Dimensions of Environmental Systems	3
FISH/ANTH F675	Political Ecology	
PS S458 (https://catalog.uas.alaska.edu/search/?search=PS+S458)	Environmental Politics	
RD/CCS F612	Traditional Ecological Knowledge	

Business and Public Administration

Code	Title	Credits
Complete one of the following:		
PADM S601 (https://catalog.uas.alaska.edu/search/?search=PADM+S601)	Introduction to Public Administration	3
PADM S622 (https://catalog.uas.alaska.edu/search/?search=PADM+S622)	Human Resources and Organizational Development	

Sample course of study and a 3-Year Cycle of course offerings

6 : Master of Marine Policy (MMP)

The Sample Course of Study represents a one-year path to completing the MMP degree with a core focus on Economics, Development, and Sustainability.

First Year		Credits
Fall		
STAT F401	Regression and Analysis of Variance ^a	4
FISH F641	Ecosystem-based Fisheries Management ^b	2
FISH F671	Foundations of Marine Policy and Ocean Governance	3
PADM S625	Economics and Public Policy ^c	3
Credits		12
Spring		
FISH F633	Pacific Salmon Life Histories ^d	3
FISH F674	Economic Development for Fish-dependent Communities ^c	3
PADM S635	Natural Resource Policy ^e	3
RD F625	Community Development Strategies: Principles and Practices ^c	3
Credits		12
Summer		
ACNS F601	Research Methods and Sources in the North ^h	3
FISH F690	Marine Policy Internship ^f	3
Credits		6
Total Credits		30

a This requirement could be met with another approved course in *Analytic Methods*.

b This requirement could be met with another approved course in the *Living Marine Resources Management*.

c This requirement could be met with another approved course in *Economics, Development and Sustainability*.

d This requirement could be met with another approved course in *Living Marine Resources*.

e This requirement could be met with another approved course in *Law and Policy*.

f This requirement could be met with another approved internship.

g This requirement could be met with FISH F698.

h This requirement could be met with another approved elective.

Cycle of Course Offerings

A review of the course catalog indicates that, in most years, students will have the ability to choose from more than one course to meet each MMP program requirement.

The basic degree requirements include *Marine Policy* and an *Internship*. The approved courses are:

Students in the MMP program must complete at least one class in *Living Marine Resources* and at least one class in the *Management of Living Marine Resources*. The approved courses are:

Students in the MMP program must complete at least one course in *Analytic Methods*. The approved courses are:

Students in the MMP program must complete at least one class in *Law and Policy*. The approved courses are:

In Students in the MMP program must complete at least one class in *Economics, Development, and Sustainability*. The approved courses are:

Program Goals

Brief identification of objectives and subsequent means for their evaluation

The MMP program will provide graduates with a background in natural and social science elements of marine social-ecological systems and translate that knowledge into a reasoned analysis of marine policy issues. Armed with that background, MMP graduates will be qualified for marine resource management-focused positions in state and federal management agencies, tribes and tribal organizations, non-governmental organizations, and private industry in Alaska and elsewhere. The program is intended for students interested in applying science and policy. The MMP is envisioned as a terminal degree but can be used as preparation for advanced studies. Full-time students can complete the program in as little as one year. Specific educational outcomes include:

Multidisciplinary Breadth: By mastering foundational concepts in the four Core Areas, graduates will become effective members of policy analysis teams.

Disciplinary Depth: By completing a concentration in one of the Core Areas, graduates will be able to contribute subject matter expertise to policy analysis teams.

Analytic Depth: By mastering analytic tools applied to the prospective or retrospective analysis of public policies related to living marine resources, graduates will be able to contribute analytic expertise to policy analysis teams.

Firsthand Experience: By completing an internship within federal, state, local, or tribal government, a marine-dependent industry, or a marine-focused NGO engaged in the design, analysis, or shaping of marine policy, graduates will have gained firsthand experience developing and assessing policies that affect the marine environment, its living resources, and the people who depend on them.

Integrative Capacity: By completing a graduate project/literature review, MMP graduates demonstrate their capacity to gather, interpret, synthesize, and apply their coursework and experience to current policy issues.

Career Readiness: Students will be prepared to compete for professional positions in state and federal marine resource management agencies, tribes and tribal organizations, non-governmental organizations, and private industry.

Relationship of program objectives to "Purposes of the University"

The MMP, with its focus on developing graduates trained in the application of science and policy and focus on the interface between living marine resources and the people and communities that rely on them, aligns closely with the mission of UAF, Alaska's Land, Sea, and Space Grant university. UAF aims to educate undergraduate students, graduate students, and lifelong learners, to create and disseminate new knowledge, to prepare Alaska's career, technical, and professional workforce, to connect to urban, rural, and Alaska Native communities by sharing knowledge and ways of knowing, and to engage Alaskans through outreach for continuing education and community and economic development. The objectives of the MMP also align with the mission of UAS, which aspires to serve the coastal environments, cultures, economies, and communities of Alaska through interdisciplinary education, workforce development, and scholarship, research, and creative activity.

The MMP program will advance goals set out in UAF's Strategic Plan by

- a. Modernizing the student experience through experiential education and civic engagement;
- b. Preparing graduates to engage in a participatory approach to the development and analysis of public policy affecting marine social-ecological systems;
- c. Adding to UAF's prominence as Alaska's premier research enterprise in partnership with state and federal agencies, industry, Alaska Native organizations, and civic groups;
- d. Filling a gap in the suite of programs that combine to secure UAF's leadership in the science that underpins public policy that governs the management of circumpolar marine social-ecological systems.

The MMP program will advance goals set out in UAS's Strategic Plan by

- a. Creating a straightforward pathway for graduating seniors and current professionals to earn a career-focused graduate degree.
- b. Providing a pool of qualified Alaska-trained candidates to fill marine policy analyst positions in state and federal resource management agencies, local government, tribes, and commercial and non-commercial interest groups;
- c. Engaging with local, regional, state, and national governments to explore the consequences and ramifications of recognizing and facilitating the shared governance of living marine resources in increasingly responsive and accessible ways that enhance individuals and communities' social, economic, and environmental well-being.

Occupational/other competencies to be achieved

The MMP program offers graduate students the opportunity to develop a broad academic footing in Marine Policy with a focus in one of the four core areas, (1) Living Marine Resources and their Management, (2) Analytic Methods, (3) Law and Policy, and (4) Economics, Development, and Sustainability.

- a. To develop a broad background in policy dimensions of marine social-ecological systems;
- b. To develop a specialized background in one of the four core areas.

Relationship of courses to the program objectives

Required and elective courses included in the program provide extensive flexibility for students to tailor the program to their unique interests or the interests of their current or potential employers. The courses have been selected because they meet the objective of ensuring competency in the four core areas. Together, the courses will address the program objectives and satisfy the learning outcomes and occupational competencies outlined above. (See attached file 2022-03-08 Courses mapped to learning objectives.docx.)

Personnel directly involved with program

Name	Staff classification	Duties	Qualifications
Keith Criddle	Faculty	MMP program coordinator, responsible for coordinating program implementation, program administration, student recruitment, retention, student advising, curriculum development, and preparing information for program review. Dr. Criddle also teaches classes, mentors students, and conducts research.	Ted Stevens Distinguished Professor of Marine Policy, UAF Department of Fisheries

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Ljubomir Medenica	Faculty	MMP program coordinator, responsible for coordinating program implementation, program administration, student recruitment, retention, student advising, curriculum development, and preparing information for program review. Dr. Medenica also teaches classes, mentors students, and conducts research.	Associate Professor of Public Administration and Program Coordinator, UAS Master of Public Administration (MPA)
Trent Sutton	Admin/Coordinating Personnel	Resolving academic program issues and guiding program review. Dr. Sutton also teaches classes, mentors students, and conducts research.	Associate Dean of Academic Programs for CFOS and Professor of Fisheries
Andrew Seitz	Admin/Coordinating Personnel	Overall responsibility for the administration of UAF Department of Fisheries, including academic programs and facilities. Dr. Seitz also teaches classes, mentors students, and conducts research.	Chair and Professor, UAF Department of Fisheries
Carin Silkaitis	Admin/Coordinating Personnel	Overall responsibility for the administration of UAS School of Arts and Sciences, including academic programs, facilities, and personnel	Dean, UAS School of Arts and Sciences
S. Bradley Moran	Admin/Coordinating Personnel	Overall responsibility for the administration of UAF College of Fisheries and Ocean Science, including academic programs, facilities, and personnel.	Dean, UAF College of Fisheries and Ocean Science
Christina Neumann	Classified Personnel	Coordination and management of the UAF CFOS academic office	Academic Program Manager, UAF CFOS
Shayla Sulser	Classified Personnel	Coordination and management of the UAS Department of Business and Public Administration academic office	Advising Coordinator, UAS Department of Business and Public Administration
Kyle Rivera	Classified Personnel	Coordination and management of UAF CFOS student recruiting efforts	Recruitment Coordinator, UAF CFOS
Gabrielle Hazelton	Classified Personnel	Coordination and management of the UAF CFOS programs at the Juneau Center for Fisheries and Ocean Science	Administrative Manager, UAF CFOS Juneau

Enrollment Information

Projected enrollment/present enrollment

We anticipate attracting graduating students from undergraduate programs in fisheries, marine biology, and other University of Alaska programs and graduating students from other U.S. undergraduate programs. We also anticipate attracting working professionals from industry, non-profit organizations, tribes, local government, and state or federal agencies whose career goals include obtaining a graduate degree. Based on conversations with students and stakeholders and results of the survey conducted by Brower Consulting Services, we anticipate that sustained student demand for this non-thesis program will be 20-30 students per year.

How was projected/present enrollment determine? Who was surveyed and how?

Brower Consulting Services polled recent UAS and UAF students and alumni to gauge student interest in an MMP program. In August 2021, Brower Consulting Services conducted a Survey of Students, Alumni, and Organizations. A report on the methods and responses to that survey are included as Appendix 3 in the supporting document.

Minimum Enrollments to maintain program for years 1, 2, 3, 4 and 5

Year 1

5

Year 2

10

Year 3

20

Year 4

20

Year 5

20

Maximum enrollment which program can accommodate

60

Are there special restrictions on enrollments?

Yes

What are the special restrictions?

Students applying for this program must have a Bachelor of Arts or a Bachelor of Science with a minimum 3.0 GPA. Applicants are expected to be familiar with principles of mathematical optimization, statistical inference, and fishery science.

Need for Program

Required for other programs?

No

In what way is the program required? How has this requirement been met to date?

Employment Market Needs:

Who surveyed? How?

Brower Consulting Services conducted two targeted surveys during August 2021. The first survey polled recent UAS and UAF graduates to gauge student interest in an MMP program. The second survey gauged interest in program graduates through semi-structured interviews with the leadership of state and federal resource management agencies, the U.S. Coast Guard, owners of fishing and seafood companies, and representatives of Alaska-focused marine conservation organizations.

Job opportunities, including how these predictions were determined.

Now

The need for Marine Policy specialists is driven by law and regulation governing access to and utilization of the marine environment. The state and federal government agencies need marine policy specialists to conduct assessments of the likely impacts of proposed regulation and retrospective analyses of existing regulation. In addition, tribes, organizations, local governments, and business interests need marine policy specialists to represent their interests in the legislative and executive processes that churn out law and regulation. By itself, over the past 70 years, the federal government has averaged nearly 3,000 pages of new regulation per year. Between new regulation at federal, state, and local levels, new international agreements, and the increasing litigiousness of society, the need for marine policy specialists can only increase. Examples of position needs identified in the Alaska Fisheries, Seafood and Maritime Industries Workforce Development Plan (2013) include Environmental Program Manager, Fisheries Analyst, and Fishery Management Specialist. Totaled across organizations surveyed, the FSMI report estimated that annual hiring needs related to the analysis and management of marine resources are in the range of 20-30 positions in Alaska.

Two years from now

Assuming that the demand for marine policy specialists keeps pace with the average rate of increase in federal regulation, we estimate that the annual demand two years hence will be 21-31 positions in Alaska.

Five years from now

Assuming that the demand for marine policy specialists keeps pace with the average rate of increase in federal regulation, we estimate that the annual demand five years hence will be 22-33 positions in Alaska.

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Ten years from now

Assuming that the demand for marine policy specialists keeps pace with the average rate of increase in federal regulation, we estimate that the annual demand ten years hence will be 24-37 positions in Alaska.

How have positions been filled to date?

Agencies and organizations have hired from a national pool of policy analysts. They have hired graduates of the recently discontinued UAF MS Resource Economics program, the UAF MS and PhD Fisheries programs, and the UAF MS Natural Resources and Environment program. Agency leadership indicates a preference for hiring individuals who have worked or studied in Alaska. However, they have more positions than they can fill with Alaska-trained analysts.

Resource Impact

Budget

2022-02-02 Program Resource-Commitment-Form.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-02%20Program%20Resource-Commitment-Form.docx>)

Facilities/Space Needs

Because the courses included in the MMP program are already being taught, there are no new needs for classroom space. Likewise, office space is not a current constraint.

Credit Hour Production

The MMP degree program will significantly increase credit-hour production by attracting new students. Assuming that 20 students are enrolled in this program every year and take 12 credit hours per semester, credit-hour production would be expected to increase by approximately 240 credit hours per semester.

Faculty

The MMP will be anchored by the Ted Stevens Distinguished Professor of Marine Policy, an endowed position established in the UAF CFOS by the Pollock Conservation Cooperative in 2000 and filled in 2006. However, even though the courses included in the proposed MMP are currently being offered within the UA System, at least two additional faculty positions, one FTE each in UAF CFOS and UAS SAS, are needed to ensure program resilience and sustainability. For example, UAS lacks current faculty expertise to support PADM S693—Environmental Economics, an MMP Economics, Development, and Sustainability core elective. Similarly, several UAF Fisheries courses included in the MMP curriculum are only offered in alternate years due to the few faculty responsible for offering those courses.

Library/Media Materials, Equipment and Services

Because the MMP program builds on existing courses and does not require a thesis, it is unlikely that support for this program will entail unique demand for specialized library resources.

Relation of Program to other Programs within the System

Effects on enrollments elsewhere in the system

Although the MMP is related to other programs within the UA System, it does not duplicate those programs. It is anticipated that the MMP will complement existing programs and fill unmet student demand.

Related UAF Programs

UAF offers MS and PhD programs in Fisheries, Marine Biology, and Oceanography, a Master of Marine Science (MMS), an MS in Natural Resources and Environment (MS NRE), a Master of Natural Resources and Environment (MNRE), a PhD in Natural Resources and Sustainability (NRS), an MA in Arctic and Northern Studies (ANS), an MA in Rural Development (RD), and a STEM Blue MBA offered by CBSM in cooperation with CFOS. The MS and PhD programs in Fisheries, Marine Biology, and Oceanography are thesis-based and focus on developing scientific expertise. The MMS is also science-focused but aims to provide students with a broader background in marine science rather than emphasizing a single discipline. The MNRE, MS NRE, and PhD NRS programs adopt an interdisciplinary approach to understanding factors and policies that influence the sustainability and resilience in natural and managed systems. The MA in Arctic and Northern Studies focuses on human dimensions of climate change in the Arctic, while the MA in Rural Development advances academic and professional skills to increase leadership capacity in indigenous and community development processes, business development, administration, and conflict management. The STEM Blue MBA focuses on the business dimensions of the sustainable exploitation of marine and freshwater resources. The proposed MMP combines coursework from these programs to create a complementary program focused on the interface between science and management of marine social-ecological systems.

The UAF MS and PhD programs in Fisheries, Marine Biology, and Oceanography are science-focused and enrollment is largely dependent on the availability of research assistantships through faculty grants associated with thesis research. The MMP does not require thesis research and does not offer research or teaching assistantships. Consequently, it is unlikely that prospective students would forego research assistantships in MS or PhD programs in Fisheries, Marine Biology, or Oceanography in favor of self-funded studies in the MMP. However, it is possible that unfunded applicants to those programs would apply to the MMP. Similar considerations suggest that the MMP program would not directly compete for enrollments with the MS programs in Natural Resources and the Environment or the PhD program in Natural Resources and Sustainability. The MA in Arctic and Northern Studies

focuses on human dimensions of climate change in the Arctic. That narrow focus does not overlap strongly with the focus of the MMP, and thus it seems unlikely that the two programs would compete for student enrollments. There may be somewhat more overlap with the MA in Rural Development, but even so, it seems unlikely that the MMP program would detract from interest in the Rural Development program.

Related UAS Programs

UAS offers a Master of Public Administration (MPA) that provides a robust interdisciplinary context to address the organizational and managerial issues in the public and non-profit sectors through the practical application of innovative problem-solving strategies. The emphasis of this program is on preparing graduates to participate in government and non-government organizations that engage with government through business and social services. All courses offered by the UAS MPA program are fully available in an online synchronous format. The UAS MPA program has over 150 students, including students from Yukon Territory, Canada, through an MOA with Yukon University. The MMP proposal was developed in concert between faculty and leadership in UAF CFOS and UAS SAS. Co-leaders of the proposal are from the UAF Fisheries program and the UAS Public Administration. Consequently, the MMP program has been designed to draw upon the strengths of existing programs to fill a unique program niche. It is not expected to adversely affect enrollments in the UAF Fisheries or the UAS Public Administration programs.

Related UAA Programs

UAA offers an MPA with an emphasis in Public Policy Analysis and a Master of Public Policy (MPP). The UAA MPA public policy analysis emphasis caters to the staff of executive and legislative departments of local, state and federal governments. It aims to increase their capacity to analyze the effects of actual and hypothetical government policies. It emphasizes applying economic analysis and other quantitative and qualitative methods to Alaska and national policy issues. The UAA MPP program provides students the knowledge and skills they will need to be policy analysts, researchers, or leaders of public, non-profit, academic, and tribal organizations. It allows students to engage across a broad array of public policy fields and the methodological depth to carry out sophisticated analyses using quantitative and qualitative research methods. It does not seem any more likely that the MMP program will compete directly with the UAA MPA program than with the UAS MPA program. The UAA MPP has a stronger focus on policy analysis but does not include a focus on marine resources or a nexus of competency in the natural and social sciences; thus, the programs are unlikely to draw from the same pool of potential applicants

Does it duplicate/approximate programs anywhere in the system?

No

What is the justification for the duplication?

How does the program relate to research or service activities? Contributions to research or service. Benefits from research or service activities.

Graduate students registered in the MMP will not complete a thesis and will not need to work closely with faculty outside the classroom. Enrollment in most of the required and elective courses is below capacity and is expected to accommodate additional students without affecting faculty workload assignments. If the MMP program generates larger than expected enrollments, increasing the frequency of high-demand courses may be necessary. Workload negotiations between faculty and college administrators would inform decisions about changes in workload assignments or the use of adjunct faculty to meet excess demand. Faculty research and service activities are not expected to change solely due to the creation of the MMP program.

Implementation/Termination

Plans for recruiting students

Because the minimum necessary facilities, faculty, and staff resources are already in place, it is anticipated that the MMP degree program would begin the first fall semester following program approval, perhaps as early as Fall 2022.

UAF CFOS and UAS SAS will make this program known to faculty and students in the UA system and communities in Alaska through multiple press releases and internal communications. We will also use our newly renovated website to highlight this degree to recruit students from outside UAF. In addition, our faculty regularly receive unsolicited requests for information about our programs. When the faculty lack funding to support new graduate students or when the inquirers are uncompetitive for an available assistantship, the faculty can steer potential students towards the MMP degree as an alternative. We will also advertise this program with specially produced flyers highlighting this new degree to rural communities and state and federal agencies through our faculty connections with them. A marketing campaign, beginning in Spring 2022, will help recruit students for Fall 2022 and beyond. It is anticipated that an ongoing marketing campaign can be supported from tuition revenues but that the inaugural marketing campaign will need one-time funding (\$40,000).

Plans for phasing out program if it proves unsuccessful

If it becomes necessary to phase out the program, phase-out will occur over two years. Students will continue to be mentored by their existing advisors during phase-out and can still take courses because no classes are associated solely with the MMP program. Because no courses or faculty are solely associated with this program, no courses would be canceled or faculty terminated if program phase-out became necessary.

Assessment of the program

The MMP program will prepare a Student Learning Outcomes Assessment report every two years. This Assessment reports on student satisfaction of the program, student preparedness for employment, and types of employment our graduates have obtained. Continued enrollment below our projected numbers for five consecutive years would be grounds for considering program phase-out.

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Attach SLOA Plan

2022-02-04 MMP SLOA Plan (1).docx ([http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-04%20MMP%20SLOA%20Plan%20\(1\).docx](http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-04%20MMP%20SLOA%20Plan%20(1).docx))

2022-02-02 Courses mapped to learning objectives.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-02%20Courses%20mapped%20to%20learning%20objectives.docx>)

2022-03-08 Courses mapped to learning objectives.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-08%20Courses%20mapped%20to%20learning%20objectives.docx>)

2022-03-19 MMP SLOA Plan.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-19%20MMP%20SLOA%20Plan.docx>)

2022-03-21 Courses mapped to learning objectives.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-21%20Courses%20mapped%20to%20learning%20objectives.docx>)

Regents Guidelines**Upload Program Action Request Form**

2022-01-01 BOR Program Action Request (draft).xlsx ([http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-01-01%20BOR%20Program%20Action%20Request%20\(draft\).xlsx](http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-01-01%20BOR%20Program%20Action%20Request%20(draft).xlsx))

Prospectus**Upload Prospectus Document(s)**

2022-02-03 NWCCU Prospectus.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-03%20NWCCU%20Prospectus.docx>)

2022-03-08 NWCCU Prospectus.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-08%20NWCCU%20Prospectus.docx>)

Rationale

Federal and State waters off Alaska's coast comprise nearly one-third of the U.S. total. These pristine waters support abundant living marine resources, hold substantial petroleum, mineral, and alternative energy resources, serve as vital global shipping routes, and are the cultural heritage of Alaska's people. In 2019, Alaska's fisheries produced 60% of U.S. landings by weight and 32% by value. By itself, Alaska ranks as the world's seventh-greatest capture fishery—slightly behind Peru, on par with Japan, and well ahead of Vietnam and Norway. Management of Alaska's fisheries is globally recognized for adherence to sound science and policy to support these sustainable marine resources.

The need for science and policymaking expertise is ever more pressing as the changing climate affects marine ecosystems. New science is needed to anticipate changes in biological productivity and the distribution of species. New analysis is needed to identify resource management policies resilient to shifts in ecological systems and their volatility. Recognition that the design and implementation of effective marine policy requires a working knowledge of natural and social sciences has inspired the development of graduate and undergraduate programs in Marine Affairs and Marine Policy in other coastal states.

The University of Alaska has a long history of providing expertise to support state and federal management of living marine resources and environmental assessments related to outer continental shelf resource development and marine transportation. In addition, University of Alaska graduates hold leadership roles in state and federal agencies, tribal, corporate, and non-profit organizations that engage in governance, management, and policy design to support Alaska's fisheries, ecosystems, and the communities that depend on Alaska's living marine resources.

Existing U.S. programs in Marine Affairs and Marine Policy address an eclectic array of topics, including the management of living marine and anadromous resources, offshore oil and minerals exploration and development, marine impacts of onshore minerals development, siting and impacts of kinetic energy systems, forestry and land-use, transportation policy, coastal zone management, contaminants, pollutants, invasive species, monitoring and enforcement strategies, international affairs, community development, marine engineering, marine safety, port management, and the law of the sea. No one program addresses all of these fields; they each specialize in a few specific fields.

Individuals reflective of a broad cross-section of stakeholders and state and federal agencies focused on marine-related activities in Alaska were consulted about the need for and best focus for a Marine Policy program in Alaska. Several of these individuals are graduates of the Marine Affairs programs at the University of Washington or the University of Rhode Island; others are alumni of the Sea Grant Knauss Marine Policy Fellowship program. They are also familiar with UA's marine science programs. The consensus of advice suggested that the program be structured around existing UA marine science program strengths and add to those strengths by increasing attention to regulatory processes and human dimensions of marine social-ecological systems. This proposal was developed to reflect those recommendations.

The joint UAF-UAS Master of Marine Policy (MMP) is a 30-credit hour non-thesis graduate degree program designed to complement existing University of Alaska graduate programs and to meet a need unfilled by those programs. The University of Alaska houses outstanding graduate training and research programs that explore physical and biological aspects of marine systems. Cultural and social dimensions of marine resource systems are addressed in courses offered by University of Alaska faculty in Alaska Native Studies and Rural Development, Anthropology, Geography, Political Science, and Resource Management and Environment. In addition, the marine economy's business and entrepreneurship aspects are the focus of the STEM Blue MBA offered by the UAF College of Business and Security Management (CBSM) in cooperation with CFOS and the UAF Alaska Blue Economy Center. Together, these programs and centers support graduate education covering a nearly synoptic perspective of marine social-ecological systems. However, none of the existing graduate programs at UAF, UAA, or UAS provides graduate students with a comprehensive background

in the legal and policy context of the utilization and management of marine social-ecological systems, let alone couples training in these human dimensions with relevant training in the physical and biological dimensions of these systems. Consequently, for example, admirably qualified UAF CFOS graduates, hired for their technical expertise, can find themselves promoted to positions that thrust them into the policy arena where they must scramble to gain an understanding of the legal, political, and cultural contexts of living marine resource management. It is anticipated that MMP graduates will be well-positioned to compete for marine resource management-focused positions in local, state, federal, and tribal government, agencies, and organizations, non-governmental organizations, and private industry in Alaska and elsewhere.

The MMP degree program engages students in a curriculum that instills an integrated background in four core dimensions of Marine Policy, (1) Living Marine Resources and their Management, (2) Analytic Methods, (3) Law and Policy, and (4) Economics, Development, and Sustainability. The wide selection of courses that satisfy these core and elective requirements facilitates individualization of the curriculum to support each student's goals. Courses are drawn from the Alaska Native Studies, Anthropology, Arctic and Northern Studies, Biology, Cross-cultural Studies, Economics, Fisheries, Geography, Marine Science and Limnology, Natural Resource Management, Political Science, Public Administration, Rural Development, and Statistics programs at UAF and UAS. Because most of these courses are already offered at remote sites through video-conferencing, this new degree program can serve prospective students throughout Alaska and beyond.

As proposed here, Marine Policy involves quantitative and qualitative analyses pertinent to the oversight and management of marine resources: the study of the potential and actual social, economic, legal, environmental, and ecological consequences of alternative policies; an objective exploration of what is, what was, and what could be. Graduates will be equipped with the tools and background to conduct prospective analyses of the anticipated outcomes of alternative management actions and retrospective analyses of actual outcomes of management actions.

Strategic Assessment

Competing Programs within the University of Alaska System

University of Alaska Fairbanks

UAF offers MS and PhD programs in Fisheries, Marine Biology, and Oceanography, a Master of Marine Science (MMS), an MS in Natural Resources and Environment (MS NRE), a Master of Natural Resources and Environment (MNRE), a PhD in Natural Resources and Sustainability (NRS), an MA in Arctic and Northern Studies (ANS), an MA in Rural Development (RD), and a STEM Blue MBA. The MS and PhD programs in Fisheries, Marine Biology, and Oceanography are thesis-based and focus on developing scientific expertise. The MMS is also science-focused but aims to provide students with a broader background in marine science rather than emphasizing a single discipline. The MNRE, MS NRE, and PhD NRS programs adopt an interdisciplinary approach to understanding factors and policies that influence the sustainability and resilience in natural and managed systems. The MA in Arctic and Northern Studies focuses on human dimensions of climate change in the Arctic, while the MA in Rural Development advances academic and professional skills to increase leadership capacity in indigenous and community development processes, business development, administration, and conflict management. The STEM Blue MBA uses an asynchronous online modality to support instruction focused on the business dimensions of the sustainable use of marine and freshwater resources. The proposed MMP combines coursework from these programs to create a complementary program focused on the interface between science and management of marine social-ecological systems.

University of Alaska Southeast

UAS offers a Master of Public Administration (MPA) that provides a robust interdisciplinary context to address the organizational and managerial issues in the public and non-profit sectors through the practical application of innovative problem-solving strategies. The program emphasizes preparing graduates to participate in government and non-government organizations that engage with government through business and social services. The UAS MPA program has over 150 students, including students from Yukon Territory, Canada, through an MOA with Yukon University. The MMP proposal reflects collaboration between the UAF CFOS and the UAS SAS, with co-leaders drawn from the UAF Fisheries and UAS MPA programs. It has been designed to draw upon the strengths of existing programs to fill a unique program niche.

University of Alaska Anchorage

UAA offers an MPA with an emphasis in Public Policy Analysis and a Master of Public Policy (MPP). The MPA public policy analysis emphasis caters to the staff of executive and legislative departments of local, state and federal governments. It aims to increase their capacity to analyze the effects of actual and hypothetical government policies. It emphasizes applying economic analysis and other quantitative and qualitative methods to Alaska and national policy issues. The MPP program provides students the knowledge and skills they will need to be policy analysts, researchers, or leaders of public, non-profit, academic, and tribal organizations. It allows students to engage across a broad array of public policy fields and the methodological depth to carry out sophisticated analyses using quantitative and qualitative research methods. The proposed MMP differs from these programs due to its focus on living marine resources and its emphasis on linking science, policy, and social impacts.

Competing Domestic Programs

Several U.S. and foreign universities offer graduate or undergraduate programs in Marine Policy and Marine Affairs. The oldest and largest U.S. program is housed at the University of Rhode Island. Programs are also housed at the University of Washington, the University of Delaware, the University of Miami, the University of Maine, Oregon State University, the University of New Haven, Stony Brook University, the University of Hawaii Manoa, and the University of North Carolina Wilmington. The University of California Santa Barbara, Yale University, and Duke University do not offer MMA or MPA programs. However, they offer concentrations within broader programs that are similar to an MMA or MPA.

The University of Rhode Island offers BA and BS degrees in Marine Affairs, an MA in Marine Affairs (MAMA), a Master of Marine Affairs (MMA), a PhD in Marine Affairs, and dual degree programs that link the MMA to doctoral programs in Law, Landscape Architecture, and Oceanography. URI does not offer a graduate certificate in Marine Affairs. The BA and BS degrees entail 36 course credit hours in coastal and marine policy, statistics, and oceanography. The MAMA is a 45-credit hour program that requires a thesis or major project/paper. The MMA is a 30-credit-hour program that requires a major paper/project but limits admission to applicants

who have already completed a graduate degree or at least five years of ocean-related professional experience. The PhD program requires 72 credit hours, including dissertation research credits.

The University of Washington offers a Master of Marine Affairs (MMA) and concurrent degree programs in Law (JD), International Studies (MA), and Public Administration (MPA). The UW MMA requires at least 59 credit hours and is available as a course-only, a course plus capstone project, or a course plus thesis format. UW concurrent degree programs require a minimum of 36 credit hours unique to each degree program. Thus, a joint degree program would entail at least 72 credit hours.

The University of Miami offers a BA in Marine Affairs and a 5-year program that leads to a BA in Marine Affairs and a Master of Professional Science (MPS) in Marine Ecosystems and Society. The BA requires at least 120 credit hours; the BA/MPS requires 24 additional credit hours of coursework and a 6-credit hour internship.

The University of Delaware offers a Master in Marine Policy (MMP), a PhD in Marine Studies with a Marine Policy concentration, and a joint MMP-JD program. The MMP is a 30-credit hour program that requires an analytic paper. The University of Delaware PhD program requires a minimum of 42 credit hours, including dissertation research credits. The joint MMP-JD program requires a minimum of 100 credit hours.

The University of Maine offers a 30-credit hour Master in Marine Policy (MMP) with a thesis or an internship option. The University of Maine also offers the MMP in joint degree programs with the MS in Marine Biology or the MS in Oceanography. The joint degree programs can be completed with as few as 48 credit hours. A Professional Science Master (PSM) in Marine Science is also available in a 30-credit hour course-only format.

The Oregon State University supports BA and BS options for the humanities-focused Marine Studies (MAST) degree. The OSU College of Earth, Ocean, and Atmospheric Science offers an MS in Marine Resource Management. The MS is a 52-credit hour program with the option of a thesis or analytic paper. OSU also offers a graduate certificate in Marine Resource Management.

The University of New Haven offers two concentrations (Marine Resource Sustainability or Marine Education and Outreach) in its MA in Marine Policy and Management. The program website lacks detail about course credit hour requirements or thesis requirements.

Stony Brook University offers an MA in Marine Conservation and Policy with 24 credit hours of coursework and six credit hours of a capstone project or internship. The program website does not provide detail about course or thesis requirements.

The University of North Carolina Wilmington supports a Master of Coastal and Ocean Policy (MCOP) that requires 34 credit hours of coursework and a capstone project. Their website does not provide detail about credit hour requirements or thesis requirements.

The University of Hawaii Manoa offers a graduate certificate in Ocean Policy. Requirements for the certificate include 15 credit hours of coursework, the presentation or publication of a research paper focused on ocean policy, and the completion of a policy practicum or internship.

The University of California Santa Barbara offers a Master of Environmental Science and Management (MESM) with a specialization in Coastal Marine Resources Management. The degree requires 80 credit hours, including a base of 30 credit hours of MESM core courses and 36 credit hours of CMRM required and elective courses. The remaining 14 credit hours are for a group project or Eco-Entrepreneurship Project. The UCSB program has a pronounced emphasis on environmental science.

Yale University offers a Master of Environmental Management (MEM) with a specialization in Environmental Policy Analysis. The 48-unit program requirements include a capstone course or independent project (3 units) and a summer internship or research project (10-12 weeks). The 9-unit core consists of courses to establish a common body of knowledge; the 18-unit Environmental Policy Analysis specialization adds core courses in policy dimensions of law and economics and a broad range of optional elective courses selected by the student and their advisor. Yale also offers a 5-year dual degree (BS and MEM)

Duke University offers a Master of Environmental Management (MEM) with a concentration in Coastal Environmental Management. The concentration is co-headed by a natural scientist and a social scientist and positions its curriculum at the nexus between the social and natural sciences. Like the Yale program, the MEM requires 48 credit hours and offers similar flexibility in selecting courses to satisfy concentration, methodology, and elective requirements. However, unlike the Yale MEM program, the Duke MEM program requires a 4-6 credit hour project.

Detailed descriptions of these programs are included in Appendix 2 of the supporting document.

Program Niche

The proposed UAF-UAS joint MMP program aligns with credit hour requirements for non-thesis programs at the University of Rhode Island, the University of Miami, the University of Delaware, the University of Maine, and Stony Brook University. Some of those programs include a "major paper" requirement; others are course-only programs. Admission to the non-thesis track at URI is limited to individuals with a Master's degree or extensive work experience related to the degree. Program credit-hour requirements at the University of Washington, Oregon State University, the University of California Santa Barbara, Yale University, and Duke University are substantially greater than credit hour requirements in the other programs reviewed. While several programs offer students the opportunity to acquire graduate certificates in other fields, Oregon State University and the University of Hawaii Manoa are the only programs with clearly articulated graduate certificates in Marine/Ocean Policy.

Our proposed MMP program focus—Living Marine Resources and their Management, Analytic Methods, Law and Policy, and Economics, Development, and Sustainability—overlaps with existing programs at the University of Rhode Island, the University of Washington, the University of Delaware, Oregon State University, the University of California Santa Barbara, Yale University, and Duke University. However, our program has a stronger focus on managing fisheries as social-ecological systems. The greatest overlap between our proposed MMP and existing programs is with programs at the University of Miami and the University of Maine. However, our proposal includes a stronger grounding in fisheries science. While many of our courses address transboundary issues and provide examples drawn from across the globe, our proposed curriculum lacks the focus on global ocean governance, marine transportation, and ocean policy evident in the programs offered at the University of Rhode Island, the University of Delaware, and the University of Washington and it lacks a deeper focus on law available through programs closely tied to law schools (e.g., University of Rhode Island, University of Washington, University of Delaware, University of Miami, and University of Maine). Although other

programs include courses that address social and environmental justice, our proposal is unique in pairing distributed governance, self-governance, and co-management with the development and management of living marine resources.

Thus although there are similarities between our proposed program and existing U.S. programs, our program offers unique strengths that should make us a competitive choice for new baccalaureate graduates of the UA System and could be attractive to new graduates of undergraduate programs outside Alaska. Moreover, our program is geographically positioned to serve the graduate education interests of locally employed professionals.

Assessment of Program Structure Alternatives

The MMP proposal development team considered three possible frameworks: a standalone MMP program, an MMP program paired to the Bachelor of Science in Fisheries UAF-UAS parallel coordinated programs, or the addition of an MMP track to an existing graduate program.

The strongest candidates for the third alternative are the UAS MPA program and the UAF MMS program. While an MMP track could be added to either program, it does not align with their current missions or objectives. Adding an MMP emphasis would require a substantial redesign of those programs. Moreover, being under the roof of another program may limit strategic and operational focus and flexibility for the MMP.

The first and second alternatives are not mutually exclusive. Each entails choosing how to situate the MMP within the UA System and meet Northwest Commission on Colleges and Universities (NWCCU) accreditation requirements. We return to that question after addressing the choice between these alternatives.

As proposed, the MMP is a 30-credit hour program with coursework that could be completed in as little as two semesters and an internship that could be completed over the following summer. Pairing the MMP with a BS in Fisheries would formalize that pathway without materially altering the design of the MMP. However, limiting ourselves to that pairing could create a barrier to enrollment in the MMP. Instead, with appropriate advising, Fisheries undergraduates could move seamlessly into the MMP program as if they were in a paired program. Moreover, there is active consideration of changing the parallel coordinated undergraduate Fisheries programs into a joint program recognized by the NWCCU. Consequently, the team agreed to propose developing a standalone MMP program with core faculty and support staff housed at UAS and UAF. This alternative ensures program ownership and accountability needed to enable the program to respond to evolving student demand and employer needs. Our focus on this alternative does preclude a later option to offer a 5-year BS Fisheries-MMP track.

We considered three options for structuring an MMP program involving UAF and UAS. The options we considered are:

1. A degree program offered by UAF with faculty from UAS able to serve as instructors and advisors. An example is the UAF graduate program (MS and PhD) in Fisheries. UAS Biology & Marine Biology faculty with collaborating faculty appointments in the UAF Fisheries Department have attendant privileges to chair graduate committees. Diplomas for these students do not recognize UAS even when the committee chair is a UAS faculty member. The lack of direct benefits UAS under this option could make it difficult to justify faculty workload assignments that recognize instruction and advising activities necessary to MMP program success and sustainability. Moreover, this option provides little incentive for UAS institution to contribute to student recruitment, program administration, or assure that UAS will continue to offer courses required in the MMP curriculum.
2. A second option is for each university to secure authorization for its degree program based on a shared aim to create duplicate programs and agreements to standardize curriculum and degree requirements. Diplomas for graduates of a parallel coordinated program would list UAF or UAS depending on how students enroll in the program. This option predisposes competition between programs and risks program divergence.
3. Our preferred option is for UAF and UAS to offer a joint degree program. The NWCCU defines a joint program as "one that is offered through a contractual agreement between two or more institutions and leads to the award of one degree with both institutions' names on the diploma." Approval of a joint degree program necessitates additional review by NWCCU, which must consider the stability of the commitment to support the degree program jointly and whether the program serves the mission of both institutions. Specifically, the NWCCU (*ibid.*) stipulates, "The proposal for a joint degree program must be jointly developed by the partnering institutions and the institutions must provide information concerning the support to be provided and an assessment of the impact the program will have on each institution." This option reflects the actual development of the MMP proposal and the substantial role of both UAF and UAS in program delivery and administration. Moreover, in our view, this third option is most consistent with the BOR's encouragement to expand cooperation across MAUs.

Because 71% of the required and elective courses proposed for inclusion in the MMP are offered by UAF, we recommend that UAF act as the lead institution for the MMP program. Graduates will receive a diploma indicating that the degree is awarded jointly by UAF and UAS. Students will receive separate transcripts for UAF and UAS coursework applied to the degree. The transcripts will report a GPA based on courses completed at that institution. UAF degree audits conducted using DegreeWorks will show UAS courses as transfer credits and vice versa. Applications for admission to the MMP program will be processed through the UAF Graduate School. A program Steering Committee will be led by the co-coordinators and will include faculty from UAF and UAS representing programs that contribute substantially to the MMP curriculum. The Steering Committee will also include a representative chosen by the MMP students. An Advisory Committee comprising representatives of organizations likely to employ MMP program graduates (e.g., the Alaska Department of Fish and Game, the Alaska Board of Fisheries, the North Pacific Fishery Management Council, the NOAA Fisheries Alaska Region Office, the U.S. Coast Guard, organizations focused on fisheries, fish processing, and fishing-dependent communities) will serve as a sounding board to advise the Steering Committee on program performance and needed changes. Tuition revenues will be divided between UAF and UAS based on course enrollment.

Additional Information

The Supporting Document includes an Executive Summary for the proposal, full copies of the UAF, BOR, and NWCCU new program proposal documents, and appendices that include (1) a compilation of course descriptions for MMP program required and elective courses, (2) a description of other U.S. Marine Policy/Marine programs, (3) the Brower report on surveys conducted to gauge student

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and employer interest in an MMP program, (4) an MOU between UAF and UAS to cooperate in development and administration of this joint program, and (5) letters of support from federal and state agencies and other organizations.

The original information for the program requirements can be found at this link - Janeen 2/17/2022: https://docs.google.com/document/d/1iKKQqJlus19jYn0iazf1nBCzhz2ADhP-bP3_vS9eaaM/

Supporting Documents

2021-11-02 Response to CFOS Curriculum Committee.pdf (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2021-11-02%20Response%20to%20CFOS%20Curriculum%20Committee.pdf>)
 2022-02-02 UAF-UAS MMP MOU (draft).docx ([http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-02%20UAF-UAS%20MMP%20MOU%20\(draft\).docx](http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-02%20UAF-UAS%20MMP%20MOU%20(draft).docx))
 2022-02-22 Master of Marine Policy a joint UAF-UAS proposal.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-02-22%20Master%20of%20Marine%20Policy%20a%20joint%20UAF-UAS%20proposal.docx>)
 2022-03-08 UAF-UAS MMP MOU (draft).docx ([http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-08%20UAF-UAS%20MMP%20MOU%20\(draft\).docx](http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-08%20UAF-UAS%20MMP%20MOU%20(draft).docx))
 2022-03-08 Master of Marine Policy a joint UAF-UAS proposal.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-08%20Master%20of%20Marine%20Policy%20a%20joint%20UAF-UAS%20proposal.docx>)
 UA Mail - GAAC feedback on FISH 683 and MMP March 2022.pdf (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/UA%20Mail%20-%20GAAC%20feedback%20on%20FISH%20683%20and%20MMP%20March%202022.pdf>)
 PSPA Letter of Support for MMP.pdf (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/PSPA%20Letter%20of%20Support%20for%20MMP.pdf>)
 ADF&G Letter of Support for MMP.pdf (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/ADF&G%20Letter%20of%20Support%20for%20MMP.pdf>)
 2022-03-21 Master of Marine Policy a joint UAF-UAS proposal.docx (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/2022-03-21%20Master%20of%20Marine%20Policy%20a%20joint%20UAF-UAS%20proposal.docx>)
 NPFMC Letter of Support for MMP.pdf (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/NPFMC%20Letter%20of%20Support%20for%20MMP.pdf>)
 UA Mail - MMP Revisions.pdf (<http://catalog.uaf.edu/courseleaf/archive/programadmin/375/1/UA%20Mail%20-%20MMP%20Revisions.pdf>)

Reviewer Comments

Peter Westley (pwestley) (Mon, 01 Nov 2021 20:19:12 GMT): The CFOS Curriculum Committee met on October 25th and discussed the proposed new Master of Marine Policy. You will see that we have multiple points for consideration, but to begin we would like to thank you for the very detailed and clear proposal, which made our task of reviewing much easier. We welcome you to chat with us about any of these details and genuinely hope they are helpful in your revision. Below we list questions and comments that resulted from our discussion, in no particular order of importance. We had questions on the section regarding Admission Requirements and particularly the following: "Students applying for this program must have a Bachelor of Arts or a Bachelor of Science with a minimum 3.0 GPA. Applicants are expected to be familiar with principles of mathematical optimization, statistical inference, and fishery science" Several of us were struck by the emphasis on quantitative methods, stats, and a focus on fisheries science rather than marine policy per se. Given that your proposed program is inherently interdisciplinary we assume you will be getting students with very different backgrounds, with BAs and BSs, and we worried that this might lead to a loss of some students applying even if they were qualified and could be interpreted as being exclusionary. We noted that while the admission requirement is focused on quantitative methods, many of the courses and focal areas are not. We also noted language stating that students will be admitted based on their background and interests. If this is the case, the description of student requirements should be more detailed and consistent. A clearer articulation of the role of advisors is needed. Several times there was mention of advisors but it was not clear how, if in any way, advisors were selected or what their role was. Said another way, must all MMP student have advisors? There was some confusion about the potential for students to waive FISH671. This seems counter to the logic of having a core course that is required, which presumably will be providing a consistent foundation of content knowledge and building cohorting. There was substantial discussion of how the internships, which have markedly different amounts of credit, would result in students having very different experiences in the MMP. If we understand correctly a student might take 12 of 30 credits if they took PADM S691 while another student might only take 2 of 3 credits if they enrolled in ANTH/BIOL F613. By doing so the former student will have a less course intensive experience and more hands-on experiential learning and the latter nearly all course based and little experiential learning. Is this variation and flexibility desired? In B. Basic Requirements we noted that the reference to [2] was perhaps missing We were confused by the language regarding Complete one course from each of four core areas for 2-4 credits. Is that ONE total course from any of the areas or one course from each of the four areas (FOUR courses)? If the latter then the 2-4 credits don't add up. If the former the language should be revised. The was questioning regarding Program Goals and whether it was reasonable to assume mastery of living resources and their management by taking only 1-2 courses. Remove 400-course level option for all stacked courses available (e.g. FISH 425 Fish Ecology...just say FISH 650) Additional justification of how courses were selected for electives, was the catalogue consulted? Conversations with departments? There was some discussion that several MSL courses might fit in the living resources bucket/focal area

Peter Westley (pwestley) (Mon, 01 Nov 2021 21:17:44 GMT): Rollback: Hi Keith- The CFOS CC met last week and we had an extensive discussion about the MMP. Overall we all felt very positive about its impact and need, but had ideas for clarification, etc... While we (the CFOS CC) would like communication to all be documented in Courseleaf to ensure transparency, we also welcome any questions or clarifications about our comments. Feel free to reach out to me and Sarah as co-chairs of the CFOS CC if you have an questions. We look forward to seeing revisions and will be looking at the proposals for associated courses (e.g. FISH 671) in the short term.

Peter Westley (pwestley) (Mon, 08 Nov 2021 22:33:18 GMT): See response to CFOS Curriculum Committee document

Janeen Culbertson (jkruge) (Fri, 14 Jan 2022 20:49:27 GMT): 1/14/2022 - attached updated documentation per Keith's request.

Renee Pike (rhpik2) (Tue, 22 Feb 2022 20:31:38 GMT): 2/22/22 - attached updated documentation per Keith's request.

Keith Criddle (kcriddle) (Tue, 22 Feb 2022 23:44:36 GMT): Response to CFOS Curriculum Committee 1. Admission Requirements: To meet our program objectives to prepare graduates to serve as analysts and advisors to agencies, tribes, and stakeholders in a 1-year 30-credit program, we have to start with students who have developed, through undergraduate courses or experience, a conceptual background in analytic methods and natural resource systems. We spoke at length with leaders of the Alaska Native Studies and Rural Development department (UAF), the Arctic and Northern Studies program (UAF), the Political Science departments (UAS and UAF), and the Natural Resources and Environment department (UAF). Those we spoke with indicated that their graduating seniors are familiar with the concepts of mathematical optimization and statistical inference and that students interested in the MMP would be familiar with fisheries and fisheries science from a conventional or traditional framework or through experience. None felt that their students would be disadvantaged or off-put by this admissions expectation or that it would exclude otherwise qualified applicants. We received feedback that led us to drop the STAT 401 admissions requirement we included in a preliminary draft of the program requirements. The CFOS CC was also concerned that the Admission Requirements state: "Students will be admitted based on their academic preparation and the capacity of the program to meet their particular interests and needs." We do not intend this as a screening step to exclude applicants. Master of Marine Policy and Master of Marine Affairs programs are not well-established disciplines. Many have such a strong Law focus that they are essentially specialized law degrees. Others have a strong transportation or ports and infrastructure focus. The UA system does not have the current capacity to support either of those emphases. Similarly, while we could imagine offering a marine safety/security emphasis in conjunction with the UAF College of Business and Security Management, the CBSM is focused on issues attending its recent creation and is unprepared to embark in new directions at this time. Moreover, because we have few faculty, we may not support some concentrations in some years due to faculty availability. If a student (1) wants in, (2) meets the degree and GPA requirements, (3) considers themselves prepared in mathematical optimization, statistical inference, and fishery science, and (4) has means to pay for their tuition and fees, they will be admitted so long as we anticipate that space will be available in the classes they wish to take. 2. Advising: The catalog listing has been amended to state that "MMP program students are advised by the program coordinators." In addition, the proposal now indicates that MMP program coordinators and MMP program participating faculty will serve as advisors for the required 3-credit non-thesis graduate project. 3. FISH671 Requirement: We eliminated the option of waiving this course requirement. 4. Internship Requirement: This requirement has been revised to "Complete an internship with a federal, state, local, or tribal government, marine-dependent industry, or marine-focused NGO (2-6 credits)." 5. Missing Footnote: We have corrected this and several other mistakes in our Courseleaf representation of the degree requirements. 6. Program Requirements: Our presentation of the program requirements has been extensively revised and uploaded into a catalog-ready format in CourseLeaf. 7. Program Goals: We intend for our graduates to become influential members of multidisciplinary policy analysis teams. They need to understand the argot and foundational concepts underpinning each core area to be effective. While we expect our graduates to develop deeper expertise in one of the core areas, we do not expect them to attain a level of subject matter mastery comparable to a Master of Science/Arts in Fisheries, Marine Biology, Law, Economics, Rural Development, Political Science, Natural Resource Management, Biometrics, etc. We see our graduates deeply engaged in the regulatory and policy processes rather than in scientific research programs. Our program mission is to "provide graduates with a background in natural and social science elements of marine social-ecological systems and prepare them to apply that knowledge to the analysis of marine policy issues." Our overarching goal is that "MMP graduates will be effective members of multidisciplinary policy analysis teams in state and federal management agencies, tribal organizations, non-governmental organizations, and private industry in Alaska and elsewhere." We have revised the goals and SLOs derived from the MMP program mission and overarching goal. 8. Simplify Course Listing: We simplified the listing of stacked courses by removing references to their 400-level designations. 9. Rationale Underlying Course Selections: Courses selected for multidisciplinary breadth and disciplinary depth were informed by reviewing catalog listings, discussions with department/program heads, and input from faculty who offered comments on drafts of the program proposal. Formal feedback was received from, among others, Tony Gharrett (UAF CFOS emeritus), Lara Horstman (UAF CFOS), Jessica Glass (UAF CFOS), Schery Umanzor (UAF CFOS), Gordon Kruse (UAF CFOS emeritus), Franz Mueter (UAF CFOS), Ginny Eckert (UAF CFOS), Curry Cunningham (UAF CFOS), Courtney Carothers (UAF CFOS), Brad Moran (UAF CFOS dean), Andy Seitz (UAF CFOS), Brandon Boylan (UAF Arctic and Northern Studies and Political Science), Amy Lovcraft (UAF Arctic and Northern Studies and Political Science), Chanda Meek (UAF Arctic and Northern Studies and Political Science), Mark Herrmann (UAF College of Business and Security Management), Dave Valentine (UAF, Department of Natural Resources and Environment), Tia Tidwell (UAF Department of Alaska Native Studies and Rural Development), Debbie Mekiana (UAF Department of Alaska Native Studies and Rural Development), LJ Medenica (UAS Master of Public Administration program director), Glenn Wright (UAS, Political Science), Heidi Pearson (UAS Marine Biology), Carin Silkaitis (UAS School of Arts and Sciences dean), Maren Haavig (UAS Provost), and Ralph Townsend (UAA ISER director). Our selection of courses also benefited from the input of many individuals employed by state and federal agencies, non-profit organizations, tribal corporations, and industry on the topics and skills to be addressed within the program. 10. MSL Course Inclusion: We included four MSL courses as options for meeting the Living Marine Resources component of the Living Marine Resources and their Management core area: MSL F410—Marine Bird Ecology and Conservation (3 credits); MSL F610—Marine Biology (3 credits); MSL F619—Biology of Marine Mammals (3 credits); MSL F667—Ecology and Physiology of Marine Macroalgae (3 credits). Conversations with MSL faculty and reexamining catalog descriptions did not identify additional relevant courses.

Keith Criddle (kcriddle) (Tue, 22 Feb 2022 23:45:13 GMT): Response to Feedback from GAAC meeting and GAAC chair 1. Advising: The proposal has been revised to indicate that MMP program co-coordinators will advise MMP students and that the non-thesis graduate project will be completed under the supervision of the MMP program coordinators or a faculty member associated with the MMP program. 2. Credit for Prior Learning: The footnote that incorrectly suggested that students could meet the internship requirement through credit for prior learning has been deleted. 3. Program Requirements: Our presentation of the program requirements has been extensively revised and uploaded into a catalog-ready format in CourseLeaf. Among other changes, the revised program requirements limit the required internship to a maximum of 6 credits, add a minimum 3-credit non-thesis research requirement, and subdivide the Core Area requirements into a breadth component (12-17 credits in 4 core areas) and a depth requirement (4-8 credits) in one of the core areas. Together, these changes place clear sideboards while retaining the opportunity for students to customize the curriculum to meet unique career objectives. 4. Capstone Requirement: We added a 3-credit capstone requirement: FISH 698—Non-thesis Research/Project or PADM S698—Directed Research. The requirement states: "Complete a

graduate project or literature review.” A footnote adds: “The project or literature review will be completed under the supervision of the MMP program coordinators or a faculty member associated with the MMP program.” 5. Program Goals: We have revised the objectives and learning outcomes to better align with the program goals and express them in assessable criteria. The revision separates multidisciplinary breadth, disciplinary depth, and analytic depth objectives. In addition, the revised student learning outcomes include specific outcomes for the internship experience, the integrative non-thesis research project, and career readiness.

6. CourseLeaf: Janeen Culbertson and Renee Pike have helped put the program requirements into a catalog-ready format in CourseLeaf. Required forms and supporting documents have been revised to reflect changes in the program requirements, learning outcomes, etc., and posted in CourseLeaf. 7. Ethics Training: The FISH F671—Foundations of Marine Policy and Ocean Governance syllabus has been revised to include a learning module, and student learning objectives focused on ethics in public policy. 8. Internship Requirement: The FISH F690—Marine Policy Internship syllabus has been revised to include internship agreements and student evaluation templates. The MMP program student learning objectives have been revised to specify assessment criteria and procedures related to the internship experience from the perspectives of the student, the internship host, and the MMP program.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:06:52 GMT): (1 of 6) Response to GAAC concerns conveyed by email on 3/1/22 We appreciate the iterative guidance that GAAC has provided. We have endeavored to address the GAAC’s concerns in each subsequent revision of our proposal. As we explain below, our latest revision in response to comments shared by the GAAC co-chair on 3/1/22 clarifies but does not materially modify the program requirements. Because the GAAC expressed concern about the clarity of our presentation of the program requirements, we sought additional feedback from CFOS faculty and academic support staff. We asked them to focus on how the program requirements are presented and whether students and advisors could navigate them. We have incorporated their recommendations in our program proposal’s newest draft.

1. Breadth/Depth Requirement Differences among Core Areas: Based, in part, on input received from potential employers and potential students, the MMP Proposal Development Team structured the Program Requirements to foster the development of competencies in four core areas: (1) Living Marine Resources and their Management, (2) Analytic Methods, (3) Law and Policy, and (4) Economics, Development, and Sustainability. The program includes a breadth requirement to establish a common body of foundational knowledge across the core areas and a depth requirement intended to foster the development of greater depth within one core area. We initially considered treating the course requirement in Living Marine Resources and their Management precisely like the course requirements in the other core areas. We decided against that option based on feedback from potential employers who expressed concern that our students might graduate with a gap in their foundational knowledge by picking a course focused on biology/ecology without a complementary course in the management of living marine resources or vice versa. We then considered splitting Living Marine Resources and their Management into a core focused on the biology and ecology of Living Marine Resources and a core focused on the Management of Living Marine Resources. We rejected that option because it risked direct competition between an MMP with a depth focus in Living Marine Resources and the MS Marine Biology and MMS Marine Studies programs. Similarly, an MMP with a depth focus in the Management of Living Marine Resources risks direct competition with the MS Fisheries program. The actual difference in total required credits to meet breadth and depth requirements does not vary significantly among the four core areas. The breadth and depth requirements for a concentration in the Living Marine Resources and their Management core area is 11-15 credits. Meeting breadth and depth requirements for a concentration in Analytic Methods would take 8-12 credits. To meet those requirements for a Law and Policy concentration would necessitate 6-9 credits. Program breadth requirements and requirements for a concentration in Economics, Development, and Sustainability requires 9 credits. Students who meet the depth requirement with courses at the low end of the credit range will need to enroll in additional electives to meet the program minimum of 30 credits. Those electives must be included in the GSP, which the MMP program co-coordinators must approve. The MMP program co-coordinators are likely to steer the students to select those electives from courses listed under the four core areas.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:07:48 GMT): (2 of 6) Response to GAAC concerns conveyed by email on 3/1/22

2. Focusing vs. Broadening Depth Requirement Across Categories Within a Core Area: The federal and state agencies we asked for advice were concerned about filling vacancies on policy analysis teams charged with preparing Environmental Assessments, Regulatory Impact Reviews, etc. Agency representatives expressed a strong interest in applicants with foundational knowledge across the four core areas because foundational breadth facilitates communication across multidisciplinary regulatory analysis teams. They also expressed interest in recruiting people who can serve as subject area specialists within those teams. That is, they value focus as well as breadth. For example, while an MMP graduate with a 3-course concentration in statistics is not a statistician, their background in statistics may be more robust than that of colleagues and strong enough to avoid common pitfalls in interpreting statistical results. Similarly, an MMP graduate with a 3-course concentration in Development, Policy Analysis, Distributed Governance, or Human Environments could be very useful to a team that prepares policy analyses for a wide variety of living marine resource issues.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:08:16 GMT): (3 of 6) Response to GAAC concerns conveyed by email on 3/1/22

3. Capstone/Research Requirement: We have asked the Graduate School for advice on whether it is appropriate to ask students to register for 698 or 697 when completing a directed literature review instead of a graduate project.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:10:41 GMT): (4 of 6) Response to GAAC concerns conveyed by email on 3/1/22

4. MMP Overall: One GAAC reviewer states, “Living Marine indicates a larger and broader perspective other than fisheries. The program seems to be centered in fisheries while it should be centered in policy from where you stream out to fisheries resources, mammals, conservation, and economics but keeping policy in the center and as common denominator. In my opinion, this needs to go back to the design table and involve organizations, Native, federal, etc., so that the university can capitalize on the needs and build an adequate program based on policy.” a. Program Perspective: We respectfully disagree with the suggestion that our program proposal is centered on fisheries. Of the 67 courses required or approved as program electives, only 13 are focused on fish or fisheries, and of those, only 9 are focused explicitly on fisheries or fisheries management. Of the 14 classes that meet the Analytic Methods core area requirements, only 2 focus on fish or fisheries. Similarly, of the 13 classes that meet program requirements in the Law and Policy core area, only 3 focus on fisheries. Likewise, only 1 of the 17 classes that meet program requirements in the Economics, Development, and Sustainability core area focuses on fisheries. While many of the Living Marine Resources and their Management core area courses focus on the biology, ecology, and management of fisheries, fully half of the courses in that core area focus on the biology, ecology, or management of other marine biotas. We do not apologize for drawing on the strengths of the UAF Fisheries program—it is an internationally recognized program noted for its strengths in quantitative fisheries science, the design of sustainable fisheries

management strategies, and its integration of the social, economic, biological, and ecological dimensions of fisheries. Focusing on fisheries policy would be a good choice for an MMP student. However, the proposed MMP program also benefits from essential contributions from the UAF Department of Alaska Native Studies and Rural Development (10 courses) and the UAS Department of Business and Public Administration (11 courses). Consequently, there are many possibilities for students to complete all the MMP program requirements without focusing on fish, fisheries, or fisheries management. Indeed, they could complete the MMP program without taking a single class focused on fish or fisheries. b. Program Focus: We respectfully disagree with the characterization that our proposed program lacks a policy focus. All MMP students will take FISH F671—Foundations of Marine Policy and Ocean Governance (3 credits). Every student will complete an internship (2-6 credits) with an organization engaged in designing, analyzing, or shaping marine policy. In addition, every student will complete a graduate project or literature review (3 credits) that addresses a contemporary Marine Policy topic. Those three requirements alone represent 27-40% of the required course credits. Students who choose a concentration in the Law and Policy core area could take 3 courses that include “policy” in their title (9 credits) or combine some of those courses with any of 6 law courses, 2 courses in regulation, or 2 other courses in governance. The Economics, Development, and Sustainability core area includes 2 courses that include “policy” in their title, either of which could be used to meet the breadth requirement in that core area. Using only courses that include “policy” in their title, a student who meets breadth and depth requirements in Law and Policy or Economics, Development, and Sustainability would earn an additional 40% of the required program credits. That is, students can earn 67-80% of the required credits in “policy” courses. Many of the other courses listed under the Core Area Requirements have a strong policy focus even though their titles do not include “Policy.” For example, while only 2 of the elective courses included in the Economics, Development, and Sustainability core area include “policy” in their title, most of the other courses in that core area are focused on policy choice and analysis. Similarly, the 6 courses in the Analytic Methods core area's Modeling and Qualitative Analysis subcategories focus on applying analytic tools to assess and shape policies that affect social-ecological systems. In addition, policy analysis is integral to all 4 courses that satisfy the Management of Living Marine Resource program requirement. The only program requirement that does not explicitly include a focus on policy choice or analysis is the Living Marine Resource requirement—satisfying that requirement entails completing one course (3-4 credits), 10-13% of total required credits.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:11:35 GMT): (5 of 6) Response to GAAC concerns conveyed by email on 3/1/22 4 c. Program Scope: We are happy to report that our proposal has benefited from many fruitful discussions with academic colleagues, current students, alumni, potential employers, and other stakeholders. These discussions have been ongoing for over a decade but became increasingly focused in mid-2020. In mid-2021, the consultation process shifted from conceptualization of the scope and structure of the MMP program to the direct review of drafts of the program requirements. Sadly, we did not find a suitable place to document these consultations in CourseLeaf. On the academic front, we sought and received input from the leadership and faculty housed in the UAF College of Fisheries and Ocean Science, the UAS School of Arts and Science, the UAF Department of Fisheries, the UAF Department of Marine Biology, the UAS Department of Business and Public Administration, the UAF College of Business and Security Management, the UAF Department of Alaska Native Studies and Rural Development, the UAS Department of Natural Science, the UAF Department of Natural Resources and Environment, the UAF Department of Political Science and the Arctic and Northern Studies program, the UAS Department of Social Science, and the UAA Institute of Social and Economic Research. In addition, input has been received from the Alaska Board of Fisheries, the Alaska Commercial Fisheries Entry Commission, the Alaska Department of Fish and Game, the Alaska Fisheries Development Foundation, the Alaska Longline Fishermen's Association, the Alaska Marine Conservation Council, the Alaska Marine Safety Education Association, the Alaska Ocean Observing System, Alaska Sea Grant, the Aleutian Pribilof Island Community Development Association, American Seafoods, the At-Sea Processor Association, the Coastal Villages Region Fund, the Glacier Fish Company, the Groundfish Forum, Iccicle Seafoods, the Juneau Economic Development Council, the Marine Conservation Alliance, the McDowell Group, the Nature Conservancy, North Pacific Seafoods, Northern Economics, the Norton Sound Economic Development Corporation, Oceana, the Ounalashka Corporation, the Pacific Seafood Processors Association, the Sitka Economic Development Association, the Southwest Alaska Municipal Conference, Swalling and Associates, Trident Seafoods, United Catcher Boats, the US Coast Guard 17th District, the US Fish and Wildlife Service, the US National Park Service, the US NOAA Alaska Fisheries Science Center, the US NOAA Alaska Region Office, the US NOAA Office of General Counsel, the US North Pacific Fisheries Management Council, and the Western Alaska Community Development Association. In our proposal, we commit to forming a program Steering Committee and a program Advisory Committee. The MMP program co-coordinators will chair the Steering Committee. It will include UAF and UAS faculty representing programs that contribute substantially to the MMP curriculum. The Steering Committee will also include a representative chosen by the MMP students. The Advisory Committee formed of representatives of potential employers (e.g., the Alaska Department of Fish and Game, the Alaska Board of Fisheries, the North Pacific Fishery Management Council, the NOAA Fisheries Alaska Region Office, the U.S. Coast Guard, organizations focused on fisheries, fish processing, and fishing-dependent communities) will serve as a sounding board to advise the Steering Committee on program performance and needed changes. d. Program Niche: We are confident that the MMP program will serve needs not met by other UA degree programs. It will complement but not compete with our existing programs, and it addresses a BOR priority focus area. We are confident that the quality of our program will measure up well against other US programs in Marine Policy and Marine Affairs. We are confident that the MMP program will increase graduate enrollment at UAF and UAS and become financially self-sufficient within three years. Could our proposal be improved? Certainly, nevertheless, it is a good proposal. Moreover, the Steering Committee and Program Advisory Committee are intended to help refine the MMP program over time. Echoing Montesquieu, we encourage the reviewer not to let a quixotic pursuit of hypothetical perfection preclude the adoption of a good proposal.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:12:11 GMT): (6 of 6) Response to GAAC concerns conveyed by email on 3/1/22 5. Broadening MMP Program: Any thoughts of broadening the MMP program will need to pay close attention to avoiding overlap with existing programs such as the Center for Arctic Policy Studies. Nevertheless, the structure of the MMP program requirements lends itself to the inclusion of additional courses in each of the four core areas or the addition of new core areas. Our proposal requests funding for two new faculty positions, one at UAF and one at UAS. UAS SAS has requested an assistant professor specialized in environmental economics, sustainability and resilience, or institutional design to increase UAS capacity to support MMP program core courses in Law and Policy and Economics, Development, and Sustainability. UAF CFOS has requested an assistant professor of marine policy focused on policy dimensions of mariculture, ocean energy, or marine spatial planning and giving us the capacity to offer courses in these import emerging fields. For example, while we have courses in the biology/ecology of invertebrates and

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macroalgae, we do not have any courses focused on the management of shellfish or macroalgae farms or of sustainable harvest strategies for wild beds of macroalgae even though these are target growth areas for the state. A course in marine spatial planning would be a natural companion to courses in ecosystem-based ocean management and ecosystem-based fisheries management. Similarly, adding GIS as new category under the Analytic Methods core area would take identifying 3 or 4 graduate or 400-level courses are applicable to marine and coastal environments and identifying faculty interested in guiding internships and research projects in those areas. 6. Letters of Support: We have begun requesting letters of support from potential employers of MMP program graduates.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:12:54 GMT): Changes to MMP Program Proposal 1. The catalog description of the program requirements has been edited to clarify that while UAF and UAS will jointly award the diploma, there will be separate transcripts with separate GPAs for UAF and UAS coursework applied to satisfy program requirements. This change reflects input from the Registrar's office on how current limitations to Banner and DegreeWorks affect transcripts for jointly offered degree programs. This clarification has also been added to corresponding sections of the MOU between UAF and UAS 2. We corrected a typo in the Minimum Requirements heading that listed the degree as M.M.S. rather than M.M.P. 3. We have reintroduced a limitation on the number of 400-level credits that can be applied towards program requirements. This limitation was inadvertently lost in a previous revision. The requirement states: "Up to 6 of these credits may be F400-level courses". 4. We wordsmithed the internship requirement to help students understand that they are only required to complete one of three internship courses. 5. We have deleted references to FISH F642 because the instructor is retiring, and the course will likely be discontinued. 6. We have included additional detail on the role and composition of the MMP Program Steering Committee and the MMP Program Advisory committee. "A program Steering Committee will be led by the co-coordinators and will include faculty from UAF and UAS represent programs that contribute substantially to the MMP curriculum. The Steering Committee will also include a representative chosen by the MMP students. In addition, an Advisory Committee comprising representatives of organizations likely to employ MMP program graduates (e.g., the Alaska Department of Fish and Game, the Alaska Board of Fisheries, the North Pacific Fishery Management Council, the NOAA Fisheries Alaska Region Office, the U.S. Coast Guard, organizations focused on fisheries, fish processing, and fishing-dependent communities) will serve as a sounding board to advise the Steering Committee on program performance and needed changes." 7. We have updated the NWCCU prospectus to match the latest draft of our proposal.

Keith Criddle (kcriddle) (Wed, 16 Mar 2022 18:21:16 GMT): Status of courses listed as "Not Found" FISH F671 Foundations of Marine Policy and Ocean Governance has been approved and is being loaded into Banner. FISH F690 Marine Policy Internship has been approved and loaded into Banner. FISH F683 The Alaska Board of Fisheries is in review at the GAAC.

Jennifer Carroll (jcarroll) (Thu, 17 Mar 2022 21:13:03 GMT): Revised language in Analytical Methods, Law and Policy, and "Economics, Development, and Sustainability to "Complete one course from one of the following categories" with approval of proposer.

Keith Criddle (kcriddle) (Tue, 22 Mar 2022 16:53:49 GMT): Following recommendations of the Graduate School and GAAC, the program requirements have been revised to replace the "graduate project or literature review" requirement with a comprehensive exam. The sample sample course of study, cycle of course offerings, and SLOA have been revised to reflect the new program requirement. External letters of support have been added to the supporting documents

Janeen Culbertson (jcruge) (Wed, 23 Mar 2022 15:20:06 GMT): Making edits per the request of Keith and GAAC (see attached email) Janeen- 3-23-2022

Key: 375

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Northwest Commission on Colleges and Universities Prospectus

UAF-UAS Master of Marine Policy (MMP) Joint Degree Program.

A. Mission and Goals:

The MMP, with its focus on developing graduates trained in the application of science and policy and focused on the interface between living marine resources and the people and communities that rely on them, aligns closely with the mission of UAF, Alaska's Land, Sea, and Space Grant university. UAF aims to educate undergraduate students, graduate students, and lifelong learners, to create and disseminate new knowledge, to prepare Alaska's career, technical, and professional workforce, to connect to urban, rural, and Alaska Native communities by sharing knowledge and ways of knowing, and to engage Alaskans through outreach for continuing education and community and economic development. The objectives of the MMP also align with the mission of UAS, which aspires to serve the coastal environments, cultures, economies, and communities of Alaska through interdisciplinary education, workforce development, and scholarship, research, and creative activity.

The MMP program will advance goals set out in UAF's Strategic Plan by

- a. Modernizing the student experience through experiential education and civic engagement;
- b. Preparing graduates to engage in a participatory approach to the development and analysis of public policy affecting marine social-ecological systems;
- c. Adding to UAF's prominence as Alaska's premier research enterprise in partnership with state and federal agencies, industry, Alaska Native organizations, and civic groups;
- d. Filling a gap in the suite of programs that combine to secure UAF's leadership in the science that underpins public policy that governs the management of circumpolar marine social-ecological systems.

The MMP program will also advance goals set out in UAS's Strategic Plan by

- a. Creating a straightforward pathway for graduating seniors and current professionals to earn a career-focused graduate degree.
- b. Providing a pool of qualified Alaska-trained candidates to fill marine policy analyst positions in state and federal resource management agencies, local government, tribes, and commercial and non-commercial interest groups;
- c. Engaging with local, regional, state, and national governments to explore the consequences and ramifications of recognizing and facilitating the shared governance of living marine resources in increasingly responsive and accessible ways that enhance individuals and communities' social, economic, and environmental well-being.

B. Authorization:

The University of Alaska Fairbanks (UAF) and the University of Alaska Southeast are individually accredited universities within the University of Alaska system. The Northwest Commission on Colleges and Universities (NWCCU) has continuously accredited UAF since 1934 and has continuously accredited the UAS since 1983. The UAS accreditation includes the Juneau, Ketchikan, and Sitka campuses.

The Constitution of the State of Alaska establishes the University of Alaska as the state university, governed by a Board of Regents appointed by the governor. Alaska Statutes provide for a board of eleven voting members, including one student, with authority to carry out the mission of the university system and its constituent units, including the determination and regulation of the university's course of instruction and the conferring of degrees. Members of the board have no contractual, employment, or

financial interest in the university. The chair is elected from among the board. The board appoints the university system president, who in turn appoints the chancellors of UAF and UAS. These officers are full-time employees whose only responsibility is to the institution

C. Educational Offerings:

1. Descriptive information of the educational offering(s):

The MMP program will provide graduates with a background in natural and social science elements of marine social-ecological systems and prepare them to apply that knowledge into the analysis of marine policy issues. Armed with that background, MMP graduates will be effective members of multidisciplinary policy analysis teams in state and federal management agencies, tribal organizations, non-governmental organizations, and private industry in Alaska and elsewhere. The program is intended for students interested in applying science and policy. The MMP is envisioned as a terminal degree but can be used as preparation for advanced studies. Full-time students can complete the program in as little as one year. Specific educational outcomes include:

- a. **Multidisciplinary Breadth:** By mastering foundational concepts in the Core Areas of *Living Marine Resources and their Management, Analytic Methods, Law and Policy, and, Economics, Development, and Sustainability*, graduates will become effective members of policy analysis teams.
- b. **Disciplinary Depth:** By completing a concentration in one of the Core Areas, graduates will be able to contribute subject matter expertise to policy analysis teams.
- c. **Analytic Depth:** By mastering analytic tools applied to the prospective or retrospective analysis of public policies related to living marine resource, graduates will be able to contribute analytic expertise to policy analysis teams.
- d. **Firsthand Experience:** By completing an internship within federal, state, local, or tribal government, a marine-dependent industry, or a marine-focused NGO engaged in the design, analysis, or shaping of marine policy, graduates will have gained firsthand experience developing and assessing policies that affect the marine environment, its living resources, and the people who depend on them.
- e. **Integrative Capacity:** By completing a graduate project/literature review, MMP graduates demonstrate their capacity to gather, interpret, synthesize, and apply their coursework and experience to current policy issues.
- f. **Career Readiness:** Students will be prepared to compete for professional positions in state and federal marine resource management agencies, tribes and tribal organizations, non-governmental organizations, and private industry.

2. Evidence of approval by the appropriate academic policy body of the institution:

[The Office of the Provost will provide a copy of the signature page and BOR approval from the minutes.](#)

D. Planning:

1. Evidence of need for the change and the students to be served:

After discussions with agencies and other professional entities, faculty discovered that potential employers view an MMP positively. This view is affirmed by the results of the organization survey conducted by Brower Consulting Services. Although an MMP is not considered equal to an MS degree, it was considered preferable to a Bachelor's degree. To earn an MS degree, students must generally complete independent research projects that take significant time and financial resources. Most MS students in related programs are funded through their advisor's external grants because of the significant time commitment needed for independent research. The vicissitudes and rigor of

scientific research often delay student completion such that MS degrees often take over three years to complete. A non-thesis MMP provides an expedited opportunity for students who want an advanced understanding of marine science and policy to enter the professional workforce in positions that do not require them to undertake original scientific research.

2. The procedures used in deciding to change:
 UAF and UAS faculty have had discussions with agencies and other professional entities to determine the need for a Master of Marine Policy. For specific comments, see our letters of support (Appendix 3). UAF CFOS and UAS SAS faculty have discussed the offering of this degree and have concluded that the interest, perception, and available resources are such that going forward is appropriate. In addition, UAS contracted with Brower Consulting Services to survey organizations, students, and alumni. The final report from that contact is included in Appendix 3. The report indicates strong student interest in the program and strong organizational interest in program graduates.
3. The organizational arrangements that must be made within the institution to accommodate the change:
 It is anticipated that this new program can be established within existing organizational structures at UAF and UAS with an MOU specifying roles and responsibilities for the joint degree program.
4. Timetable for implementation
 Because the minimum necessary facilities, faculty, and staff resources are already in place, it is anticipated that the MMP degree program would begin the first fall semester following program approval, perhaps as early as Fall 2022.

E. Budget:

1. The budget projections (revenue and expenditures) for each of the first three years of operation:

Program Revenue Projections

The MMP program has the potential to generate substantial revenues from student tuition. For example, at 2021-2022 tuition rates and assuming that students enroll in 12 credit hours per semester and complete the degree program with a minimum of 30 credit hours, tuition revenue would be \$6,156 to \$6,468 per student per semester for Alaska residents and \$12,948 to \$13,260 per student per semester for non-residents, depending on the mix of UAF and UAS courses taken.

	\$/credit hour	semester (12)	program (30)
UAS Courses			
Alaska Resident	\$513	\$6,156	\$15,390
Non-Resident	\$1,079	\$12,948	\$32,370
UAF Courses			
Alaska Resident	\$539	\$6,468	\$16,170
Non-Resident	\$1,105	\$13,260	\$33,150

For revenue projections, we assume that student enrollment in year 1 of the program will include four Alaska residents and one non-resident. For year 2, we assume there will be ten students enrolled in the program (8 residents and 2 non-residents). For year 3, we assume that enrollment will reach 20 students (16 resident and 4 nonresident). For year 4, we assume that enrollment rises to 25 resident students and 5 nonresidents. At 2021-2022 tuition rates and assuming that full-time students enroll in 12 credit hours per semester and complete the degree program with a minimum of 30 credit hours, tuition revenue would be \$94,710 to \$97,830 in year 1, \$189,420 to \$195,660 in year 2, \$378,840 to \$391,320 in year 3, and \$551,280 to \$570,000 in year 4. Revenues will be partitioned between UAF and UAS according to course enrollment.

One-time Costs

A marketing campaign, beginning in Spring 2022, will help recruit students for Fall 2022 and beyond. It is anticipated that an ongoing marketing campaign can be supported from tuition revenues but that the inaugural marketing campaign and the development of program webpages on the UAF and UAS websites will need one-time funding (\$40,000). In addition, one-time funding (\$20,000) will be needed to offset faculty recruitment and start-up costs.

Recurring Costs

The Ted Stevens Distinguished Professor of Marine Policy was established in the UAF CFOS by the Pollock Conservation Cooperative in 2000 and filled in 2006. While that endowed professorship will anchor the MMP degree program, program sustainability requires two additional core positions, one FTE each in UAF CFOS (\$125,000 salary and benefits) and UAS SAS (\$125,000 salary and benefits). These additional FTEs will increase the frequency of core course offerings and ensure that student progress is not hindered by the unavailability of required and elective courses. It is expected that the cost of staff support for student recruiting, internship coordination, and program administration (\$70,000) will be apportioned between UAS and UAF according to delegated responsibilities. In addition, it is anticipated that UAS will need \$4,000 to offset increased costs for computer and networking services, \$1,200 for supplies, and \$2,000 for travel. It is also anticipated that UAF will need \$1,200 to offset increased costs for supplies and \$2,000 for travel. It is assumed that program administration costs will begin in year 1, while new faculty salaries and benefits will not begin until year 2.

Net Revenues

Projected net revenues, including one-time costs, under the above scenario would be **-\$45,690 to -\$42,570** in year 1, **-\$164,740 to -\$170,980** in year 2, \$18,449 to \$30,920 in year 3. Beyond year 3, we anticipate net revenues of \$190,880 to 4209,600. In year 1, it would take at least nine residents or seven residents and one nonresident student to generate positive net revenues. Year 2 and beyond would take 23 residents or 11 nonresidents to surpass breakeven revenues.

2. Revenue and expenditures associated with the change itself:
None.
3. Institutional financial support to be reallocated to accommodate the change:
None.
4. The budgetary and financial implication of the change for the entire institution:
There could be a substantial increase in student enrollment due to this new graduate degree. Many of the courses these new students will take are offered by department in UAF CFOS and UAS SAS, so CFOS and SAS stand to gain the largest share of the associated tuition revenues. However, many of the courses included in the MMP program are offered by other UAF and UAS departments, so those departments are also likely to benefit from enrollment and tuition revenue increases.

F. Student Services:

Students and prospective students in the UAF CFOS graduate programs are supported by an Academic Manager and a Recruitment Coordinator who will be ready to assist these new students administratively. An Advising Coordinator supports students and prospective students in the UAS Department of Business and Public Administration.

G. Physical Facilities:

Program needs for office and classroom space can be accommodated with existing physical facilities.

H. Library and Information Resources:

Because the MMP program builds on existing courses and does not require a thesis, it is unlikely that support for this program will entail unique demand for specialized library resources.

I. Faculty and Staff:

The MMP will be anchored by the Ted Stevens Distinguished Professor of Marine Policy, an endowed position established in the UAF CFOS by the Pollock Conservation Cooperative in 2000 and filled in 2006. However, even though the courses included in the proposed MMP are currently being offered within the UA System, at least two additional faculty positions, one FTE each in UAF CFOS and UAS SAS, are needed to ensure program resilience and sustainability. For example, UAS lacks current faculty expertise to support PADM S693—Environmental Economics, an elective in the MMP Economics, Development, and Sustainability core. In addition, several UAF Fisheries courses included in the MMP curriculum are only offered in alternate years because there are too few faculty to offer those courses more frequently.

U.S. Department of
Homeland Security

**United States
Coast Guard**



Commander
United States Coast Guard
Seventeenth District

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Juneau, AK 99802-5517
Staff Symbol: dre
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Email: Jason.A.Brennell@uscg.mil

1524
April 15, 2022

University of Alaska
Attn: Pat Pitney, President
Butrovich Bldg, Ste 202
2025 Yukon Drive
P.O. Box 755000
Fairbanks, AK 99775-5000

Dear President Pitney:

The U.S. Coast Guard is a national leader in countering Illegal, Unreported, and Unregulated Fishing (IUUF) and ensuring U.S. sovereignty in the Arctic. Every year, several Coast Guard officers attend Marine Policy programs at various universities to graduate and serve as our service's marine policy subject matter experts. However, the current programs in existence are distant from the center of gravity that Alaska commands for both these issues. Alaska is superiorly positioned to influence, and be affected by, IUUF and rapidly increasing Arctic activity.

An Alaska-focused Marine Policy graduate program could benefit future Coast Guard leaders with knowledge and exposure to a region the Coast Guard, nation, and world, are increasingly focused on. To meet our service's needs for Maritime Law comprehension, Coast Guard officers need foundational knowledge in the maritime laws and agreements that undergird discussions and actions on IUUF and sovereignty in the Arctic.

I would be eager to host internships at the Coast Guard's office in Juneau for any future UA Marine Policy graduate students.

Sincerely,

A handwritten signature in blue ink, appearing to read "J.A.B.", with a stylized flourish at the end.

J. A. Brennell, CAPT
District 17 Chief of Enforcement
U. S. Coast Guard

Copy: Dr. Keith Criddle, UAF College of Fisheries and Ocean Science