

Board of Regents Program Action Request University of Alaska

Proposal to Add, Change, or Discontinue a Program of Study

| 1a. UA University UAF | | | .c. Department or Program Veterinary Medicine | | | |
|--|------------------------|---------------|---|---|--|--|
| 2. Complete Program Title One Health Master's | | | | | | |
| 3. Type of Program | | | | | | |
| ☐ Undergraduate Certificate ☐ Associa | te 🗆 Baccal | aureate | Post-Baccalaureate Certif | icate | | |
| | _ | darcate | = | | | |
| Master's ☐Graduat | e Certificate | | Doctorate | | | |
| 4. Type of Action 5. Implementation d | | | ion date (semester, year) | | | |
| Add Change Discont | Add Change Discontinue | | Spring Summer | Year 2019-2020 | | |
| 6. Projected Revenue and Expenditure Summary (not required if the requested action is discontinuation). 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 (1st) and explain in the program summary attached. Note that revenues and expenditures are not always entirely new; some may be current (see 7d.) | | | | | | |
| Projected Annual Revenues in FY 19 | | Projected Ar | nnual Expenditures in FY 19 | | | |
| Unrestricted | | Salaries & be | enefits (faculty and staff) | \$134,967 | | |
| General Fund | \$40,000 | | modities, services, etc.) | \$10,035 | | |
| Student Tuition & Fees | \$102,251 | TOTAL EXPE | NDITURES | \$145,002 | | |
| Indirect Cost Recovery | \$ | One-time Ex | penditures to Initiate Program | ditures to Initiate Program (if >\$250,000) | | |
| TVEP or Other (specify): | \$ | (These are c | (These are costs in addition to the annual costs, above.) | | | |
| Restricted | | Year 1 | | \$ | | |
| Federal Receipts | \$ | Year 2 | | \$ | | |
| TVEP or Other (specify): | \$ | Year 3 | | \$ | | |
| TOTAL REVENUES | \$142,251 | Year 4 | | \$ | | |
| Page # of attached summary where the budget is discussed, including initial phase-in: A more detailed budget is in the prospectus (pages 7-10) and in courseleaf. | | | | | | |
| 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 | \$ | \$ | | | | |
| c. Funded through new internal UA univers | /yr \$ | \$40,000 | | | | |
| d. Funds already committed to the program | | | \$180,000* | \$ | | |
| e. Funded all or in part by external funds, e. | \$ | | | | | |
| f. Other funding source (specify type): | \$ | \$ | | | | |
| *This is calculated as the faculty effort required to teach 31 credits per year and to advise students. Average salary of | | | | | | |
| \$90,000 was estimated. Existing space, which will not need to be renovated, was not included. | | | | | | |
| 8. Facilities. New or substantially (>\$25,000 cost) renovated facilities will be required. Yes No If yes, discuss the extent, probable cost, and anticipated funding source(s), in addition to those listed in sections 6 and 7 above. | | | | | | |
| | | | | | | |

¹Sometimes 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.

| 9. Projected Enrollments (headcount of majors). If this is a program discontinuation request, project the teach-out enrollments. | | | | | | | | |
|--|--|-------------|-----------|---|----------|-----------|--|--|
| Year 1: 10 | Year 1: 10 Year 2: 15 + 10 = 25 Year 3:20 + 15 = 35 Year 4: 25 + 20 = 45 | | | | | | | |
| Page number of attached summary where demand for this program is discussed: Page 6 of Prospectus and page 13 of text of courseleaf | | | | | | | | |
| | 10. Number ² of new TA or faculty hires anticipated (or number of positions eliminated if a | | | | | | | |
| program discontinuat | | ons elimina | ted II a | Graduate TA | | 0 | | |
| | | | | Adjunct | | 0 | | |
| Graduate TA | 0 | | | Term | | 0 | | |
| Adjunct Term | 0 | | | Tenure track | | 0 | | |
| Tenure track | 0 | | | Former assignm | ent of | any rea | assigned facult | y: |
| Terrare track | | | | For more inform | nation | see pag | ge of the | e attached summary. |
| 12. Other programs a | ffected by t | he propose | ed action | n, including those | e at otl | her cam | npuses (please | list): |
| Program Affec | ted | | | | An | ticipate | ed Effect | |
| Arctic and Northern | Studies | | | | | | | usiastic supporters of the OHM. |
| Communication and Journalism | | Increases | enrollm | nents in specific o | courses | s. They a | are supportive | of the OHM. |
| Biology, Economics, Development | Rural | | | ease enrollment int courses. Impa | | | | economics course, and two |
| | hed summa | | | | | | 25 200 10 10 10 10 10 10 10 10 10 10 10 10 1 | Prospectus, page 15 of text of |
| 13. Specialized accreditation or other external program certification needed or anticipated. List all that apply or 'none': none 14. Aligns with University or campus mission, goals, core themes, and objectives (list): Core Themes (Educate, Prepare, Connect, and Engage. Page in attached summary where alignment is discussed: Prospectus page 2 | | | | pare, Connect, and Engage. | | | | |
| | | | | text of Coursele | eaf, pag | ges 7-10 | 0. | |
| 15. Aligns with Shaping Alaska's Future themes: The OHM aligns with Theme 1: Student achievement and attainment (issues C, D, E and F), and Theme 3: Productive Partnerships with Public Entities and Private Industries (Issue C). | | | | | | | | |
| Page in attached sum | mary wher | e alignmen | t is disc | ussed: Text of Co | ursele | af, page | 9-10. | |
| 16. State needs met by this program (list): Alaska's Career and Professional Workforce | | | al | 18. Program is initially planned to be: (check all that apply) | | | | |
| Page in the attached summary where the state needs to be met are discuss Text of Courseleaf pages 1-2, 7-10, and 14. | | | ssed: | □ Available to students attending classes at UAF campus(es). □ Available to students via e-Learning | | | | |
| | | | | | | | Partially a | vailable to students via e-Learning |
| | | | | | | | | ched summary where e-Learning is xt of courseleaf, page 2, page 15. |
| 17. Yes or No (circle one) If this program is an addition, would program be eligible for State's Eligible Training Provider List program? No (Click here for more information) | | | | | | | | |
| Submitted birth and Docusigned by: Anupma Prakash May 23, 2019 Date Date May 23, 2019 Date Date Date | | | | | | | | |

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| Consensus support of AC | ☐ Not supported by AC |
|--|--|
| Recommend approval by VPAAR Recommend disapproval by VPAAR | UA Vice President for Academic Affairs & Research Date |
| | aculty member will be reassigned from another program, but his/her original program will hire a replacement, is if appropriate. Graduate TAs are normally 0.5 FTE. The numbers should be consistent with the |
| Attachments: Summary of Degree or C Revised: 08/07/2017 | ertificate Program Proposal |

The following motion passed at Faculty Senate meeting #240 on May 6, 2019:

MOTION:

The UAF Faculty Senate moves to approve the new One Health Master's:

EFFECTIVE: Fall 2019, with Board of Regents Approval

RATIONALE:

Many, perhaps most, of the challenges that residents of the Circumpolar North will face in the future are in the realm of One Health - the intersection and interdependence of human, animal, and environmental health. Creating solutions to these challenges will require those who are knowledgeable about One Health concepts, can communicate effectively across cultures and educational backgrounds, can bring together stakeholders and disciplinary experts, and can utilize a variety of problem-solving skills that lead to effective mitigation plans emphasizing adaptation and resilience. The Masters in One Health provides training and, most importantly, practice in those specific areas. It is a unique interdisciplinary degree that requires an understanding and integration of science, culture, history, communication, and more. There is no other degree like it in Alaska or the Circumpolar North. We anticipate that this Masters Degree will draw students not just from Alaska, but from across the Circumpolar North. As UAF moves forward with the new Center for One Health Research, many of those students will become collaborators in our One Health Research efforts. Others will enter the workforce as health professionals and as advocates for their communities at the local, regional, national and international levels. The Masters in One Health is a foundational step in the UAF's path to becoming an international leader in this emerging field.

Although this is a new endeavor for UAF, sufficient resources are already in place to support the program. With minor shifts in teaching loads, we have the space, technology, and faculty to teach this program.

| | ******* | Docustigned by: Syndonia Brit-H C9781083AAE5410 | earle |
|-----------------|----------------|---|--------------------------|
| | | Presi | dent, UAF Faculty Senate |
| The Chancellor: | Approves | Vetoes | Acknowledges |
| | WH- | Date: | 5/14/19 |
| Daniel M. White | UAF Chancellor | | |

Brief Program Statement:

One Health encompasses the relationship between human health, animal health, and the health of the environment and holds that these entities are inextricably linked to the extent that none can be optimal unless they are all optimal. One Health is interdisciplinary and inclusive; it invites the full participation of community members working together with scientists, health practitioners, tribal leaders, and government agency personnel to identify problems and create realistic, sustainable solutions to those problems. This program will provide knowledge and problem-solving skills for individuals who will be involved in managing One Health challenges at the community, state, federal, and international level. Implementing a constructionist approach and using the knowledge and skills developed in the coursework, the program culminates in the creation of a management plan to address a problem that students and community members have identified. The plan will be presented to stakeholders and content experts in a public forum.

Mission Statement:

The One Health Master's Degree (OHM) educates students to use a constructionist approach to address issues in the Circumpolar North that are at the intersection of human, animal, and environmental health. Graduates of the program will be able to engage key stakeholders to develop and implement realistic management plans that can be implemented in communities across the Circumpolar North.

Vision Statement:

Within the next 10 years, individuals who have a comprehensive understanding of One Health and an ability to utilize a community-centered, constructionist approach to problem-solving are likely to emerge as leaders in solving a wide array of problems in the Circumpolar North, UAF's One Health Master's will be recognized as a leader in educating these individuals.

We anticipate that this degree will attract students who are already engaged or interested in working in their communities to address One Health issues, and that it will also attract students seeking entrance to medical or veterinary schools who want to deepen their understanding of One Health and incorporate the paradigm and problem-solving skills into their future medical careers. For this reason, we propose two concentrations in the One Health Master's: a Community Advocate Concentration and a Biomedical Concentration.

The 19 credits in the core of this degree will provide training in communication, epidemiology, conflict resolution, cultural awareness, and skills for gathering pertinent data. The capstone sequence of courses (DVM F615, DVM F620, and DVM F621) will culminate in utilizing that knowledge and those skills to identify the root causes of a One Health problem and build a comprehensive management plan that addresses the root causes and proposes a realistic pathway to solving the problem. This interdisciplinary, integrative, constructionist approach will involve One Health students working with key stakeholders and community members to identify the problem, interview key stakeholders and knowledge bearers in both traditional knowledge and western scientific knowledge, gather data from reliable sources, and, utilizing various planning techniques such as One Health SMART and scenarios building, create a management plan to address and solve or mitigate the problem.

Because it is central to the One Health Master's Degree, this 19-credit core will be required for students in both concentrations. Additional courses are proposed for the two concentrations: courses in veterinary medicine and biology for those in the Biomedical Concentration and

courses in social sciences for those in the Community Advocate Concentration. Successful One-Health professionals will need to be aware of the social, cultural, governmental, historical, and scientific realities that influence One Health issues and their solutions. To accommodate this breadth, we have provided an array of courses from multiple disciplines. With guidance from the OHM faculty and staff, students will select courses that best complement their previous education and experience, and dovetail most closely with their future education and career choices.

The One Health paradigm developed in the Veterinary Medical profession where it focused largely on the difficulties of monitoring and managing zoonotic diseases. It has grown in the past few years to become a framework for solving a wider array of problems. Our program is unique in that identifying and resolving issues begins at the community level and works outward, engaging stakeholders from local, state, national, and even international agencies. One Health is inherently interdisciplinary. The focus of our One Health Master's is on communicating about One Health challenges and proposing solutions to those challenges; it does not rely on all participants having in depth scientific knowledge, but instead on gathering expertise and communicating effectively to provide solutions. The program's strength is in creating a community of diverse participants committed to examining and solving One Health problems by drawing information and data from cultural, social science, natural science, and medical perspectives.

Our plan is to develop and teach this program through face to face meetings, initially. However, within the first 5 years we would like to begin piloting an e-learning version of the classes so that partners across the Circumpolar North may more easily enroll in and complete the OHM.

Requirements for the Degree (catalog layout copy of the program)
Complete the General University Requirements

Complete the Master's Degree Requirements

| CODE | TITLE | CREDITS |
|-----------------------------------|--|---------|
| Complete the following R | equired Courses (19 credits) | |
| DVM F615 | One Health Concepts | 2 |
| DVM F620 One Health Challenges | Course DVM F620 One Health Challenges Not Found (new course) | 3 |
| DVM F621 One Health Colloquium | Course DVM F621 One Health Colloquium Not Found (new course) | 4 |

| ACNS F600 | S F600 Perspectives on the North | | | |
|--|---|---------|--|--|
| <u>DVM F714</u> | Preventative Veterinary Medicine | 4 | | |
| Select one from the fo | pllowing: | | | |
| COJO F441 | Persuasion | 3 | | |
| COJO F451 | Cross-cultural Conflict Analysis and Intervention | 3 | | |
| COJO F680 | Communication and Diversity in the Professional World | 3 | | |
| Complete either the C Concentration | ommunity Advocate Concentration or the Biomedical | | | |
| Community Advocate (| Concentration (12 credits) | | | |
| Select 12 credits from | the following*: | | | |
| ACNS F610 | Northern Indigenous Peoples and Contemporary Issues | 3 | | |
| ACNS F652 | International Relations of the North | 3 | | |
| ACNS F655 | Political Economy of the Global Environment | 3 | | |
| ACNS/HIST F683 | 20th-century Circumpolar History | 3 | | |

| ECON F434 | Environmental Economics | 3 |
|---------------------------|--|---|
| <u>RD F465</u> | Community Healing and Wellness | 3 |
| RD F601 | Political Economy of the Circumpolar North | 3 |
| Biomedical Concentration | n (11-12 credits) | |
| Select 11-12 credits from | the following*: | |
| DVM F606 | Immunology | 3 |
| DVM F637/BIOL F632 | Veterinary Bacteriology and Mycology | 3 |
| DVM/BIOL F640 | Veterinary Pathology/Biology of Disease I | 5 |
| DVM F639 | Veterinary Virology | 2 |
| BIOL F455 | Environmental Toxicology | 3 |
| BIOL F617 | Neurobiology | 3 |
| BIOL F635 | Introduction to Biology of Cancer | 3 |
| ECON F434 | Environmental Economics | 3 |

[•] Other courses may be substituted with approval of OHM Faculty.

Program Goals

Brief identification of objectives and subsequent means for their evaluation

Program Goals

The overall objective of the program is to educate individuals who will facilitate problem resolution in the One Health paradigm. These individuals might be community leaders, tribal leaders, individuals who work in local, state, national, or international governments or agencies, or medical practitioners. These individuals must have a comprehensive understanding of One Health, excellent communication skills, cultural understanding, and consensus-building and problem-solving skills. A table titled "Program Goals and Method of Assessment" is attached.

Relationship of program objectives to "Purposes of the University"

Note: This section might be easier to read in the attached "text of Courseleaf OHM,2018" since formatting cannot be preserved in this courseleaf box.

The "Purposes of the University" are teaching, research, and service, and those are focused more specifically by the UAF mission statement:

"The University of Alaska Fairbanks is a Land, Sea, and Space Grant university and an international center for research, education, and the arts, emphasizing the Circumpolar North and its diverse peoples. UAF integrates teaching, research, and public service as it educates students for active citizenship and prepares them for lifelong learning and careers."

The mission of the OHM complements UAF's mission as a land, sea, and space grant university. The OHM focuses on both land and sea, and the critical role these environments play in both animal and human health. Further, the OHM has a specific focus on the Circumpolar North and its diverse people, which is an integral part of the UAF mission. Our goals are to educate students to help solve problems at the intersection of environmental health, animal health, and human health, especially within the context of the Circumpolar North. UAF plays an important role in the University of the Arctic and we hope to draw many students to UAF through UArctic. Graduates of our program will support the economy, culture, and health of people throughout the Circumpolar North and likely beyond. At this time of rapid climate change, there is a critical need for people to come together to develop strategies for managing community- based problems in the Circumpolar North. This program addresses a key knowledge gap in the Arctic: an understanding of the interrelationship between environmental, human, and animal health is crucial in creating sustainable solutions for many of the problems in our Northern communities.

Specific UAF Core Themes that are addressed in our program's Student Learning Outcomes include the following:

Educate: Undergraduate and graduate students as lifelong learners.

This graduate degree educates a range of students, and because of its constructionist approach to solving community-based One Health challenges, it encourages students to be lifelong learners. In addition, those entering the Biomedical Concentration should experience higher admission rates into health professional schools and will carry the One Health mindset into their health occupations.

Prepare: Alaska's Career, Technical, and Professional Workforce

Our focus is on solving One Health problems in Alaska and the wider Circumpolar North. We anticipate attracting diverse students who will return to their communities in these regions to become leaders in addressing challenges in Alaska. We believe that those going into our biomedical track will be better prepared to gain entry to medical and veterinary schools or other professional programs in medicine.

Connect: Alaska Native, Rural, and Urban Communities by Sharing Knowledge and Ways of Knowing.

By their nature, One Health challenges in the Circumpolar North will involve Native communities and their leaders as well as urban community leaders, agency personnel, and medical practitioners. Our program will guide students to be culturally aware so that traditional knowledge and western scientific knowledge are partners in the resolution of One Health challenges.

Engage: Alaskans through Outreach for Continuing Education and Community and Economic Development.

The OHM is designed to engage communities in Alaska and the Circumpolar North. In our capstone sequence of courses, students will be investigating One Health problems that are identified by communities, and they will create management plans that prioritize the community's needs.

Several activities within the University of Alaska Academic Master Plan are also addressed by our Program. Specifically:

Goal 1. Educate students to become informed and responsible citizens.

Objective 4. Embrace the cultural diversity of Alaskans and promote cross-cultural understanding.

Activity: Recruit, retain, and graduate a diverse student body that reflects the population of Alaska.

One of our primary program goals is to recruit and educate a diverse student body from across the Circumpolar North.

Activity: Include a wide variety of cultures in the curriculum and co-curricular activities.

Our program is best served by having students of a variety of cultures in the cohort where they can share knowledge and personal perspectives gained through both formal education and cultural experiences.

Activity: Incorporate the knowledge and wisdom of Alaska Native elders in

curricular and co-curricular activities.

A specific student learning outcome is to identify ways to synergize traditional knowledge and western knowledge.

Activity: Maintain and expand opportunities for students to gain international knowledge and experience.

Students from across the Circumpolar North will be working together in our program to solve problems that may have international significance. We will encourage our students to attend international conferences and present workshops on One Health at these conferences.

Our program also addresses some of the specific issues identified in Shaping Alaska's Future.

Theme 1: Student achievement and attainment

Issue C: UA Students must demonstrate skills and knowledge in their particular majors. In all aspects of the UA educational experience, students also must develop critical thinking skills, good judgment, high ethical standards and an understanding of diversity to be responsible citizens and leaders.

Our program would offer students the opportunity to learn about and practice critical thinking and good judgment, to appreciate diversity and incorporate diverse views into a management plan, and to become responsible citizens and leaders in the emerging field of One Health.

Issue D: UA needs to increase national and international recognition of its quality education, programs of distinction and exceptional research in order to enhance recruitment of undergraduate and graduate students and faculty.

One Health is an emerging field, and we are taking a unique approach to training graduate students to become professionals in this discipline by our constructionist approach and by focusing on the Circumpolar North. By initiating this program now, we have the opportunity to develop a reputation as a leader in One Health. Our vision statement states that UAF will become a leader in this field.

Issue E: UA recruitment, retention and graduation rates are low, especially for disadvantaged and minority populations and for Alaska Natives.

Because our program specifically focuses on communities in the Circumpolar North, it should attract a diverse student body, and be particularly attractive to non-traditional students and Alaska Native leaders who are already working in fields related to One Health. We already have evidence that the One Health paradigm resonates with Alaska Native and rural students (data gathered by BLaST Program), and we anticipate that the clear focus on using a constructionist, inclusive approach to addressing One Health challenges will allow us to recruit, retain, and graduate these underrepresented students.

Issue F: Alaska has serious unmet needs for advanced degree graduates, and UA has opportunities to meet those needs both internally and through

partnerships with other institutions.

One Health is an emerging field, and right now there are serious unmet needs in educating individuals to address One Health challenges across the world, and particularly in the Circumpolar North. Only four or five schools in the US have One Health Master's degrees, and none of those take the unique constructionist approach that we do. None focus on the serious issues that are of concern in the Circumpolar North.

Theme 3: Productive Partnerships with Public Entities and Private Industries

Issue C: Alaska Native corporations, tribal governments and other Alaska Native entities are a unique and powerful force in Alaska's economy. They hire UA graduates and some provide considerable financial aid to students. However, meaningful partnerships between UA and these entities are few and limited.

The Alaska Native Tribal Health Corporation has already expressed interest in hiring graduates of our program. As our graduates enter the workplace and become leaders in the field, we anticipate working ever more closely with many Alaska Native tribal governments and corporations, as well as with non-profit and government agencies.

Occupational/other competencies to be achieved

There are no recognized occupational standards or competencies for individuals who solve problems in a One Health framework. However, we anticipate that our graduates will be highly skilled in the transferable skills of identifying problems, gathering appropriate critical information, engaging stakeholders, communicating effectively in written and oral forms, mediating among diverse groups, building consensus, and developing management plans that address important challenges in the Circumpolar North. Further, we believe that students who complete our Biomedical concentration will be better equipped to understand and deal with emerging medical problems in the coming years, and to communicate with patients, clients, and community members about health issues and solutions to those problems.

Relationship of courses to the program objectives

Each of the courses in this program has been chosen to support the objectives of the OHM. Three courses critical to the success of the program are newly created: DVM F615, DVM 620, and DVM 621. These are referred to as the "capstone sequence." In these three courses, students will develop a deep conceptual understanding of One Health (DVM F615), develop a variety of skills for identifying and solving One Health challenges (DVM F620), and practice using those skills to address a current problem (DVM F621). Also included as required core courses are epidemiology (DVM F714, Preventive Veterinary Medicine) where students will learn about disease transmission and statistics, a communications class (COMM F441, F451, or F680), and a class that will promote a broad understanding of the Circumpolar North (ACNS F600). Course suggestions within the two concentrations provide students with the option to advance in areas of personal interest or career relevance. The Student Learning Outcomes map the content of

the courses to the student learning outcomes. SLOA is attached to preserve formatting.

Resource Impact

Budget

Budget, OHM, 2018 submission.xlsx

Facilities/Space Needs

The current facilities are sufficient to meet the need as projected. All the program requires is classroom space and space for public presentations. As the program expands to an e-learning format, we will require smart classrooms and video conferencing rooms. Those are also available on campus.

Credit Hour Production

See attached table for details of calculations. These calculations are based on the proposed course sequences, and an estimate that approximately half of the students will be in the Community Advocate Concentration and half in the Biomedical Concentration.

Year 1 = 160 credit hours

Year 2 = 386 credit hours

Year 3 = 536 credit hours

Year 4 = 691 credit hours

Year 5 = 762 credit hours

Faculty

The program can be taught by faculty who are currently at UAF. As the program grows, there may be a need to shift workloads and to potentially hire adjunct instructors, pay overload contracts, or hire new faculty. There should be sufficient tuition income to support those costs.

Library/Media Materials, Equipment and Services

We have not reviewed this program with the Library because we are confident that the library and media resources we require are already available due to the activity of the Vet Med Program and the Northern Studies Program.

Regents Guidelines

OHM, BOR-PAR form, fall 2018.docx