



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

1a. UA University (choose one) UAF	1b. School or College Graduate School	1c. Department or Program Resilience and Adaptation Program
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2. Complete Program Title Resilience and Adaptation Certificate

3. Type of Program

<input type="checkbox"/> Undergraduate Certificate	<input type="checkbox"/> Associate	<input type="checkbox"/> Baccalaureate	<input type="checkbox"/> Post-Baccalaureate Certificate
<input type="checkbox"/> Master's	<input checked="" type="checkbox"/> Graduate Certificate	<input type="checkbox"/> Doctorate	

4. Type of Action <input checked="" type="checkbox"/> Add <input type="checkbox"/> Change <input type="checkbox"/> Delete	5. Implementation date (semester, year) <input checked="" type="checkbox"/> Fall <input type="checkbox"/> Spring <input type="checkbox"/> Summer    Year 2016
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6. Projected Revenue and Expenditure Summary. Not Required if the requested action is deletion. (Provide information for the 5<sup>th</sup> year after program or program change approval if a baccalaureate or doctoral degree program; for the 3<sup>rd</sup> year after program approval if a master's or associate degree program; and for the 2<sup>nd</sup> 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 to the University in FY 18		Projected Annual Expenditures in FY 18	
Unrestricted		Salaries & benefits (faculty and staff)	\$8145
General Fund	\$13145.	Other (commodities, services, etc.)	\$5000
Student Tuition & Fees	\$65658	<b>TOTAL EXPENDITURES</b>	<b>\$13145</b>
Indirect Cost Recovery	\$	One-time Expenditures to Initiate Program (if >\$250,000)	
TVEP or Other (specify):	\$	(These are costs in addition to the annual costs, above.)	
Restricted		Year 1	\$
Federal Receipts	\$	Year 2	\$
TVEP or Other (specify):	\$	Year 3	\$
<b>TOTAL REVENUES</b>	<b>\$65658</b>	Year 4	\$

Page # of attached summary where the budget is discussed, including initial phase-in:

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 university redistribution	\$	\$
d. Funds already committed to the program by the UA university <sup>1</sup>	\$13145	\$
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.     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.

9. Projected enrollments (headcount of majors). If this is a program deletion request, project the teach out enrollments.

Year 1: 15	Year 2: 20	Year 3: 30	Year 4: 30
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Page number of attached summary where demand for this program is discussed: 21-22

<sup>1</sup>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.

<p>10. Number* of new TA or faculty hires anticipated (or number of positions eliminated if a program deletion):</p> <table border="1" style="width: 100%;"> <tr><td>Graduate TA</td><td>0</td></tr> <tr><td>Adjunct</td><td>0</td></tr> <tr><td>Term</td><td>0</td></tr> <tr><td>Tenure track</td><td>0</td></tr> </table>	Graduate TA	0	Adjunct	0	Term	0	Tenure track	0	<p>11. Number* of TAs or faculty to be reassigned:</p> <table border="1" style="width: 100%;"> <tr><td>Graduate TA</td><td>0</td></tr> <tr><td>Adjunct</td><td>0</td></tr> <tr><td>Term</td><td>0</td></tr> <tr><td>Tenure track</td><td>0</td></tr> </table> <p>Former assignment of any reassigned faculty: For more information see page _____ of the attached summary.</p>	Graduate TA	0	Adjunct	0	Term	0	Tenure track	0
Graduate TA	0																
Adjunct	0																
Term	0																
Tenure track	0																
Graduate TA	0																
Adjunct	0																
Term	0																
Tenure track	0																

12. Other programs affected by the proposed action, including those at other MAUs (please list):

Program Affected	Anticipated Effect
None	

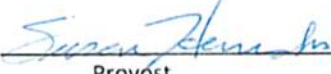

Page number of attached summary where effects on other programs are discussed: \_\_\_\_\_

<p>13. Specialized accreditation or other external program certification needed or anticipated. List all that apply or 'none': None</p>	<p>14. Aligns with University or campus mission, goals, core themes, and objectives (list): Expand graduate programs in targeted areas of identified need and existing strengths. Develop innovative approaches to resource management that support the University's mission and position UAF to meet the challenges of the future.</p> <p>Page in attached summary where alignment is discussed: 27</p>
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<p>15. Aligns with Shaping Alaska's Future themes:</p> <p>Page in attached summary where alignment is discussed: 28</p>	<p>16. Aligns with Academic Master Plan goals:</p> <p>Page in attached summary where alignment is discussed: 28-29</p>
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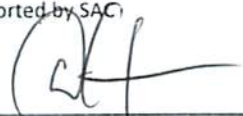
<p>17. State needs met by this program (list): Workforce Development: RAP students have a good employment track record. They learn to conduct multidisciplinary research, acquire technical expertise from GIS – drone surveillance, and are dedicated to uncovering and sharing knowledge. The majority of RAP students have remained in Alaska.</p> <p>Page in the attached summary where the state needs to be met are discussed: 29</p>	<p>18. Program is initially planned to be: (check all that apply)</p> <p><input checked="" type="checkbox"/> Available to students attending classes at UAF campus(es).</p> <p><input type="checkbox"/> Available to students via e-learning.</p> <p><input checked="" type="checkbox"/> Partially available students via e-learning.</p> <p>Page # in attached summary where e-learning is discussed: 27</p>
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Submitted by the University of Alaska Fairbanks.  
(choose one above)

 Provost	1/19/16 Date	 Chancellor	1/18/16 Date
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Consensus Support of SAC       Not Supported by SAC

Recommend Approval by VPAAR       Recommend Disapproval by VPAAR

 UA Vice President for Academic Affairs	2/24/16 Date
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\*Net 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: 04/20/2015

## PROGRAM SUMMARY

### *Introduction*

The request for a certification in Resilience and Adaptation Studies grows out of the highly successful Resilience and Adaptation Program or RAP. RAP began as an NSF funded IGERT grant under the direction of Dr. Terry Chapin in 2002 and was designed to promote regional sustainability research via team-taught multidisciplinary courses and internships as well as spawn research collaboration among departments. In 2012, RAP was institutionalized by the University with support from the State of Alaska. Under Dr. Lawrence Duffy's direction, the program continues to adapt, evolve, and improve to meet new challenges and take advantage of new opportunities. Educating students to meet the state of Alaska's needs is of paramount importance.

### *Demand for Program*

Demand for RAP admission remains extremely competitive. RAP affiliated faculty members select a small cohort each year from UAF graduate student applicants. A student can apply to an academic department and RAP simultaneously or can be admitted to RAP after beginning coursework. Over 100 graduate students have participated in the program, representing every college and school at UAF.

### *e-learning*

Due to its focus on cohort building, incoming RAP students are asked to spend fall semester at the UAF campus. The foundation courses (4 credits) are taught at this time and students share office space in the RAP trailer behind the Reichardt Building. After the initial semester RAP students may move to other locations such as the UAS or UAA campus. The students may then take courses via distance delivery as offered or needed. The monthly All RAP seminar is videoconferenced.

### *Effects on other programs*

RAP complements both the traditional academic departments and interdisciplinary students by providing a forum for cross-disciplinary learning and communication. As a result, departments may draw students from other areas that would not normally enroll in a course or conduct research in a given discipline. For example, recent MFA graduate (CLA) and ceramicist Perrin Teal Sullivan conducted some of her studies with the assistance of the Advanced Instrumentation Laboratory (CNSM).

### *Alignment with university mission, goals, core themes and objectives*

The RAP certificate aligns well with UAF's mission to integrate teaching, research and public service with an emphasis on the circumpolar North and its diverse peoples. RAP appeals to students with an intellectual curiosity that are willing to step outside disciplinary boundaries with their research design. Students are selected based on their desire to approach Northern research questions from a holistic perspective that includes both natural and social science elements. RAP already attracts the best and brightest students; the certificate will be one more means of recruiting and retaining talented graduate students.

RAP prepares students for employment in governmental agencies, non-governmental organizations, academia and private industry. 100 percent of alumni respondents surveyed in 2013 felt that RAP increased employment opportunities. *"The RAP allowed me to extend my strong natural science foundation into work as a social scientist with a profound understanding of the cultural and economic issues facing Alaskan individuals and communities."*

RAP students design projects with community needs in mind. They work with community members to observe, listen, document and develop strategies and/or solutions to identified needs. RAP students generously share their insights and promote knowledge and ways of knowing through scholarly articles, presentations, educational outreach and involvement in community organizations. Students are often the force behind new partnerships and collaborations and serve as the catalyst for change. Students provide the energy to move good ideas and projects forward. RAP students have made significant contributions to the understanding of climate change and Arctic research; their success reflects on the university's reputation.

***Alignment with Shaping Alaska's Future themes***

The certificate will contribute to state accountability by documenting the students' successful program completion. The number of students in relation to the cost of the program will support the "Shaping Alaska's Future" by improving the efficiency of the program.

- **Student Achievement and Attainment:** The students who apply to RAP are high achievers. They have the initiative to pursue research questions from an interdisciplinary perspective. The awarding of a certificate following 12 credits will acknowledge their progress and provide motivation for completing their Master or PhD degree.
- **Productive Partnerships with Public Entities and Private Industries:** State and federal agencies and non-governmental organizations have hired a significant number of RAP alumni. Both governmental and non-governmental organizations value the students' ability to analyze complex problems and develop effective strategies. Perhaps as a result of the cohort experience, RAP students are excellent communicators. They learn from day 1 how to express their ideas so that others outside their academic discipline can learn and understand.
- **Research and Development and Scholarship to Enhance Alaska's Communities and Economic Growth:** The approach to research using both a physical and social science perspective benefits the individual Alaska communities where the research is conducted and contributes knowledge to Alaska as a whole. RAP students are very cognizant that they must keep their communities informed throughout the entire research process from study design through dissemination of results. For example, Katty Jo Deeter is sharing her knowledge of building a successful tourism business in the Interior with Igiugig's ecotourism development goals.
- **Accountability to the People of Alaska:** The certificate will demonstrate accountability by documenting the students' successful completion of the program. A majority of the students' research addresses impacts of climate change. Whether they are documenting traditional knowledge regarding caribou migration or analyzing cortisol levels in whales to determine stress, the state of Alaska will benefit from the knowledge gained.

***Alignment with Academic Master Plan goals***

RAP selects students with interests related to the circumpolar North and appeals to students who are informed, responsible citizens. While they often work at the community level, their research often has implications well beyond the state level. Culturally aware, their work extends from Alaska's rural communities to the international stage. RAP alumna Robin Bronen, for example, is considered an international expert on migration as a result of climate change (climigration). Following graduation, students are in demand to fulfill leadership roles in academia as well as state and federal agencies. RAP

### *FORMAT 3: Resilience and Adaptation Program Graduate Certificate Application*

students are adept at building partnerships and initiating collaborative work in an effort to build a more sustainable Alaska.

#### *State needs to be met*

Workforce Development: RAP students have a good employment track record. They learn to conduct multidisciplinary research, acquire technical expertise from GIS – drone surveillance, and are dedicated to uncovering and sharing knowledge. The majority of RAP students have remained in Alaska.

#### *Budget*

Since any student who has an undergraduate degree is eligible to apply for the RAP certificate program, it is expected that enrollment numbers will significantly increase. The certificate is expected to attract both new and existing UA students. Tuition and fees for the six required credits in year 1 (FY18) are expected to generate \$65,700. This estimate is based on tuition and fees for 15 students (eight Alaska residents and seven nonresidents\*). We anticipate that increased students will apply and be accepted as the program becomes better known. By year 3 we anticipate an enrollment of 30 students generating \$134,205.

Adjuncts are recruited from exceptional upper level RAP graduate students or alumni. Using adjuncts provides advanced students (or alumni) excellent teaching experience at minimal cost. It additionally keeps the program fresh and relevant. Additionally, by using courses offered across the university curriculum, the cost of instruction is lowered and the graduate class size is increased. This cost saving measure allows an increased allocation of state funding to student support in the form of fellowships, travel to professional meetings (network formation) and publication costs (Dissemination of research knowledge gains). Administration: RAP uses the existing administration of UAF's graduate school.

\*Resident and nonresident numbers are based on the last three RAP cohorts where 50 percent of accepted applicants were in state and 50 percent were nonresidents.