



URSA UNDERGRADUATE RESEARCH & SCHOLARLY ACTIVITY

Undergraduate research is a high-impact practice that enhances student engagement, retention, completion, and success.

URSA Activities

- **URSA Student Project Awards:** Funding for original research and creative scholarly projects pairing undergraduates with faculty mentors at all UAF campuses.
- **URSA Student Travel Awards:** Funding for travel by undergraduates to support or present their original research.
- **URSA Mentoring Awards:** Funding for mentors (faculty, postdoctoral researchers, graduate students) to enhance or develop opportunities for undergraduate research, especially recurring opportunities.
- **Curriculum Support and Development:** Development of curricular opportunities for undergraduate research through creation of URSA courses and assistance developing departmental courses such as the Museum Research Apprenticeship Program (MRAP).
- **UAF Research and Creative Activity Day:** An annual celebration and presentation of research by undergraduate students at UAF.
- All URSA student and mentoring awards derive from UAF's reinvestment of 1% ICR into student research. ITE awards derive from 20% of the student technology fee.

URSA Impact

- Presentations by undergraduates of their research at national and international meetings.
- Publications co-authored by undergraduates in peer-reviewed professional journals.
- Acceptance of UAF baccalaureate graduates to top graduate programs, professional schools and employment locally and nationally.

Selected Performance Indicators

UAF undergraduates enrolled in 1 or more research courses

	FALL	SPRING	SUMMER	TOTAL
AY2012	137	210	15	362
AY2013	148	186	31	365
AY2014	134	205	31	370
AY2015	127	226	55	408
AY2016	107	217	47	371
AY2017*	298	338	28	664
AY2018	279	305	11	595
AY2019	123	132	3	258
AY2020	306	192	26	524
AY2021	243	278	46	567
AY2022	223	243	69	535

**The significant increase in research courses reflects a change in the research course designation process.*

URSA Student Awards

AY2012	32 awards	\$93,491
AY2013	45 awards	\$107,967
AY2014	60 awards	\$147,931
AY2015	67 awards	\$176,076
AY2016	62 awards	\$149,627
AY2017	70 awards	\$146,452
AY2018	130 awards	\$192,215
AY2019	70 awards	\$152,352
AY2020	49 awards	\$156,349
AY2021	39 awards *	\$90,195
AY2022	21 awards *	\$72,933

*Limited Travel Awards were offered due to the COVID-19 pandemic.

URSA Mentoring Awards

AY2012	5 aw.	\$16,391
AY2013	8 awards	\$31,938
AY2014	10 awards	\$35,203
AY2015	15 awards	\$78,016
AY2016	15 awards	\$69,235
AY2017	13 awards	\$89,400
AY2018	19 awards	\$93,368
AY2019	11 awards	\$51,256
AY2020	6 aw.	\$25,500
AY2021	7 aw.	\$28,331
AY2022	9 awards	\$50,185

URSA Innovative Technology and Education (ITE) Awards

AY2015	11 awards	\$65,687
AY2016	7 awards	\$58,777
AY2017	10 awards	\$55,150
AY2018	9 awards	\$53,198
AY2019	7 awards	\$45,034
AY2020	8 awards	\$37,600
AY2021	15 awards	\$55,378
AY2022	15 awards	\$79,109

University of Alaska Fairbanks
Undergraduate Research and Scholarly Activity (URSA)
Annual Report AY 2021-2022

The mission of the University of Alaska Fairbanks (UAF) office of Undergraduate Research and Scholarly Activity (URSA), which was established in 2011, is to support, develop, and institutionalize UAF's diverse and robust undergraduate research and scholarly activity programs. This activity refers to student-faculty collaboration in the creation of discipline-specific and interdisciplinary knowledge. The primary means by which URSA fulfills its mission are as follows:

1. Provide funding for undergraduate students and faculty who collaborate on research and creative projects and activities;
2. Serve as a clearinghouse for projects that offer undergraduate students and faculty opportunities to collaborate in research or creative projects and activities;
3. Assist UAF faculty, staff, post-doctoral research associates, and graduate students who strive to create or maintain undergraduate research and creative scholarly programs;
4. Create regular events that serve as venues for undergraduate students to present their research and creative projects and activities;
5. Catalog and archive UAF undergraduate student participation in research and creative projects, as well as the outcomes and products of those projects; and
6. Facilitate UAF undergraduate student recruitment and retention initiatives through program-specific initiatives.

Through these programs and initiatives, URSA aims to improve skills in critical thinking, creative problem solving, communication, and methods of inquiry and to engender a culture of life-long learning for all students, as well as enhance preparation and education of undergraduates who will fill the needs of Alaska's 21st century workforce and society. URSA is UAF's resource for the development and promotion of experiential learning activities that engage undergraduate students, regardless of discipline, in support of UAF's goal to be a leading student-oriented research university. Based on the 2019 National Survey of Student Engagement (NSSE) for High-Impact Practices, UAF seniors scored higher than peer institutions on "working with a faculty member on a research project". In this age of ever-increasing information and access to that information, research literacy is a required competence for the entire populace, not just UAF students. Thus, offering opportunities for undergraduate students to participate in research and creative scholarship is a noted best practice in higher education. Building on existing efforts and capacities, URSA attracts, retains, and enables UAF students to pursue varying levels of research and scholarly activity engagement from independent study investigations to senior theses including scholarly exhibits and presentations, performances, or research endeavors.

University of Alaska Fairbanks
Undergraduate Research and Scholarly Activity (URSA)
Major Accomplishments

1. URSA Administration
 - a. Trent Sutton, UAF CFOS Department of Fisheries, continues as the URSA Director (18.5% of time year-round).
 - b. Marie-Sylvestre Olesen continued as URSA Coordinator at three quarter time, 10 months a year.
 - c. The URSA Faculty Advisory Board was expanded to include the following UAF faculty and staff: Elaine Drew and Charles Mason from College of Liberal Arts (CLA), Peggy Keiper and Jon Nachtigal from College of Business and Security Management (CBSM), Greg Kahoe and Ute Kaden from School of Education (SOE), Steffi Ickert-Bond and David Valentine from College of Natural Science and Mathematics (CNSM), Sunwoo Kim and Sveta Stuefer from College of Engineering and Mines (CEM), Ana Aguilar-Islas from College of Fisheries and Ocean Sciences (CFOS), Anshul Pandaya and Claudia Ihl from College of Rural and Community Development (CRCD), Brian Ellingson and Jennifer Tillbury from Community Technical College (CTC), Iris Harritt from Student Support Services (SSS), and Alexandra Fitts (UAF Vice Provost).
 - d. There was no URSA Student Advisory Board for AY2021-22 due to a low in-person attendance rate during the COVID-19 pandemic.
 - e. The URSA Review Panel included the following UAF faculty: Ana Aguilar- Islas, Maher Al-Badri, Jungho Baek, Rich Carr, Cheng-Fu Chen, Ross Coen, Wendy Croskrey, Margaret Darrow, Jan Dawe, David Denkenberger, Devin Drown, Devin Drown, Daryl Farmer, Greg Finstad, Kara Hoover, Falk Huettmann, SunWoo Kim, Ilana Kingsley, Cecile Lardon, Wendy Martelle, Charles Mason, Mario Muscarella, Elizabeth Nadin, Jen Peterson, Inna Rivkin, Eve Ryan, Jeremy Speight, Lisa Strecker, Kristin Timm, Renate Wackerbauer, Peter Webley, and Sveta Yamin-Pasternak.
2. Funding Awards
 - a. The total amount of funding awarded by URSA in FY22 was \$246,153 (73 awards total).
 - b. A total of \$124,118 was allocated during AY2021-22 for undergraduate student projects (fall/spring projects and summer undergraduate research projects), undergraduate student travel, CEL, and mentoring awards. Due to the COVID-19 pandemic, only travel awards for virtual events were funded during the fall 2021 semester, but URSA was able to open the travel awards to in-person events for the spring 2022 semester. We were able to host a second virtual Research and Creative Activity Day from April 5-7, 2022, and distributed \$2,100 between 10 projects for the Deans' Choice Awards. The funding for the awards that was given out in FY21 was derived from UAF's reinvestment of 1% ICR into undergraduate student research and creative activity. Funding was allocated as follows:
 - i. Fall and Spring Undergraduate Project Awards (14 awards [27 applications] totaling \$48,155)
 - ii. Undergraduate Student Travel Awards (4 awards [4 applications] totaling \$9,780)
 - iii. Summer Undergraduate Research Project Awards (3 awards [8 applications] totaling \$14,998)
 - iv. Mentoring Awards (9 awards [13 applicants] totaling \$50,185)
 - v. Community Engaged Learning Awards (7 awards [2 applicants] totaling \$1,000)
 - c. Innovative Technology and Equipment (ITE) Awards (17 awards [19 applicants] totaling \$79,109). The ITE Awards represent a funding line (former UAF Technology Advisory Board [TAB] funds) through URSA which started in 2015 and are used to fund equipment and associated software purchases in support of undergraduate and graduate education and research at UAF. These funds are derived from 20% of the student technology fee.
 - d. Due to unforeseen additional revenue late in the year, a one-time Supplies and Services Award was created, which funded 14 awards [30 applicants], totaling \$40,826.
3. Clearinghouse for Undergraduate Student Opportunities
 - a. URSA continues to serve as UAF's clearinghouse for undergraduate student opportunities to engage in unique projects conducting research or creative scholarly activities. However, the process is informal (reliant on passive communication) and thus quantifying URSA's role as clearinghouse or student-faculty matchmaker is difficult because URSA is not a student program; rather, URSA is an embodiment of UAF's institutional support for undergraduate student and faculty collaboration in research and creative projects.
 - b. Three UAF students enrolled in URSA courses, and three students enrolled in MRAP (Museum Research Apprenticeship Program) courses during AY2021-22 (see 5. Curriculum Development below).
 - c. Twenty-eight students (including groups) received URSA funding in support of research or creative scholarship during the fall, spring, and summer of AY2021-22, and an additional 30 students and/or groups applied but did not receive funding (58 total applicants). Some of these students may have been matched with their project either directly by URSA or indirectly through URSA's request for proposals. In addition, students seeking advice with respect to identifying research opportunities and/or mentors are frequent in the URSA office (weekly at a minimum and daily in the weeks at the beginning of a semester and around an URSA application deadline date). URSA has not tracked or followed up with these ad hoc advisees because they do not all apply for funding and, as a result, are not entered into the database.

4. Student Tracking and Project Cataloging
 - a. The URSA database currently has 2,973 UAF undergraduates that have been involved in research and creative activity since its creation in 2012.
 - b. Since 2012, at least 41% of UAF undergraduate students participated in an academic research experience over the course of their baccalaureate studies. Further, the 2,973 students in the URSA database support that quantification of undergraduate student participation in research. Not included in the accreditation documents and not yet included in the URSA database are undergraduate students who are employed as research assistants. URSA has been working with UAF Human Resources and the UAF Office of Planning, Analysis, and Institutional Research (PAIR) to identify a means to include such students in the database.

5. Curriculum Development
 - a. URSA (Undergraduate Research and Scholarly Activity) courses offered in AY2021-22
 - i. URSA 388 Undergraduate Research and Creative Scholarship II (Instructor: Trent Sutton; Enrollment: 0 students).
 - ii. URSA 488 Undergraduate Research and Creative Scholarship I (Instructor: Trent Sutton; Enrollment: 3 students).
 - b. MRAP (Museum Research Apprentice Program) courses offered in AY2021-22
 - i. MRAP 288 Undergraduate Research and Creative Scholarship II (Instructor: A. Linn; Enrollment: 1 student).
 - ii. MRAP 488 Undergraduate Research and Creative Scholarship I (Instructors: Patrick Druckenmiller and Andrés López; Enrollment: 3 students).

6. Research and Creative Activity Day
 - a. The UAF Research and Creative Activity Day was held virtually on April 5-7, 2022; a total of 78 UAF undergraduate students presented 43 projects at the event. Dean's Choice Awards (\$250 per project) as well as Honorable Mentions (\$150 per project) were given to each college or school; the awardees and their poster title for each college/school were as follows:
 - i. College of Business and Security Management (CBSM):
 - a. Dean's Choice Award: Leif Van Cise | *UAF 360: Virtual Campus Tours*
 - ii. College of Engineering and Mines (CEM):
 - a. Dean's Choice Award: Daisy Herrmann | *Analysis of the Long-Term Effects of Construction on Rockfall Activity Along the Parks Highway.*
 - b. Honorable Mention: Caitlynn Hanna | *Arctic Facilities and Infrastructure Environmental Change Risk Index*
 - iii. College of Fisheries and Ocean Science (CFOS):
 - a. Dean's Choice Award: Kimberly Williams | *Chaetognath Diversity and Speciation in the NGA from DNA Barcoding*
 - b. Honorable Mention: Feyne Elmore | *Mercury Fluxes from Forested and Glaciated Watersheds in Kachemak Bay, Homer, Alaska*
 - iv. College of Liberal Arts (CLA):
 - a. Dean's Choice Award: Colleen File and Sophie Schilling | *Sex Education and Female Pleasure; A Comparison Between the United States and Germany*
 - b. Honorable Mention: DeaLee Forshaw, Lisa Gilbert, and Lainey Lioi | *Exploring Lay and Provider Understandings of "Adequate" Prenatal Care in Interior Alaska: An Ongoing Pilot Study*
 - v. College of Natural Science and Mathematics (CNSM):
 - a. Dean's Choice Award: Eleanor Ransdell-Green | *Anaerobic metabolic remodeling in three-spine stickleback fish in response to thermal acclimation*
 - b. Honorable Mention: Ryan Hoskins-Chaddon | *Vertical mixing of in-city pollution dependent on temperature and wind speed.*
 - vi. College of Rural and Community Development (CRCD):
 - a. Dean's Choice Award: Freddie Olin IV | *ANCSA Land Management, Shareholder Subsistence, and Climate Change*

7. Student Highlights:
 - a. Daniel Fabrizio (CNSM – Chemistry) conducted a study to examine the zirconocene catalyzed construction and deconstruction of peptide bonds.
 - b. Zach Barnes, David Dombroski, Mori Hays and Heather McKenzie (CEM – Electrical Engineering) built a plane to compete as the UAF Design Build Fly Team for the 2021-2022 competition in Wichita, Kansas.
 - c. Charles Wolgemuth, Nolan Earnest and Steven Anderson (CLA – Film and Performing Arts) created and produced the film A Case Study of Immortality.

- d. Madeline Andriesen, Benjamin Anderson, Grace Farell, Ellie Martinson, Mariana Beks, Ariana Lopez, Taylor Hendricks, Arianna Carroll (CLA – Music) are part of UAF’s Opera Workshop program which worked with many music educators in the Fairbanks North Star Borough School District and built long lasting relationships with local teachers.
- e. Tara Dowd-Ramos (CLA – Alaska Native Languages) created a Iñupiaq Jeopardy game to give teachers an activity to do with Iñupiaq language learners in a fun, creative way for both online and in person instruction.
- f. Lydia Andriesen (CEM – ACEP) studied the solar energy potential in Haines, Alaska.
- g. Lainey Lioi and Lisa Gilbert (CLA – Anthropology) conducted a qualitative study of lay and provider perspectives of “adequate” prenatal care in Interior Alaska.
- h. Ryan Hoskins-Chaddon (CNSM – Chemistry) studied the effects of temperature inversions on vertical mixing of ozone.
- i. Sophie Schilling and Colleen File (CLA – Psychology) conducted research on sex education and female pleasure by comparing date between the United States and Germany.
- j. Hannah Glesener (CNSM – Biology and Wildlife) characterized the immune response of trembling aspen to an aggressive fungal pathogen.
- k. Stephanie Sutton and Samantha Taylor (CLA – English) studied domestic violence survivors and incarceration through stories from female incarcerated IPV survivors in Alaska to be shared for the purpose of showcasing multiple stories.
- l. Luke Martin (CNSM – Mathematics) developed peony cut flower harvest prediction models to help define best harvesting times for farmers.
- m. Lillian Nelson (CFOS – Fisheries) analyzed fish species utilizing edna sequencing along the upper Yukon River.
- n. Solveig Henry (CLA – Justice) studied the impact of probation and parole on rural Alaskans.

8. Mentor Highlights:

- a. Jonah Bacon (CFOS – Fisheries) worked with Bryce Bateman in determining the diet composition and ontogenetic diet changes in four whitefish of the Beaufort Sea.
- b. Devin Drown (CNSM – Biology and Wildlife) engaged students Jeremiah Brown, Evan Pemberton, Owen White, and Danielle Wrenn in building and using a portable Genomics Hackathon for Pathogen Detection.
- c. Brian Hemphill (CLA - Anthropology) worked with Brooke Fisher to investigate the tooth size apportionment investigation of Bodo origins.
- d. SunWoo Kim (CEM – Mechanical Engineering) worked with students Andy Hong and Taylor Underwood studied extended growing period in greenhouse assisted with vacuum tube solar collectors
- e. Nicole Misarti (CEM – Water and Environmental Research Center) engaged Gabriel Bignell and Kyle Mattson in building a heated vortexer for an isogeochemistry lab.
- f. Hannah Myers (CFOS – Marine Biology) with student Amy Whitney studied transient killer whale vocal behavior in the Gulf of Alaska.
- g. Jen Peterson (CLA – Psychology) with students Zoey Keene, Danai Kiosse, Olivia Kraska, Miranda Lloyd, Bethany McCracken and Leslie Siegfried examined isolation and loneliness in Interior Alaska’s older adults.
- h. Jennifer Questel (CFOS – Marine Biology) and Kimberly Williams studied Chaetognath diversity and speciation in the Northern Gulf of Alaska.
- i. Dougless Skinner (CLA – Anthropology) and Kayla Tate studied precolonial history of the Yukon Flats, Alaska, more specifically archaeology through the eyes of Athabascan Elders and youth.

University of Alaska Fairbanks
Undergraduate Research and Scholarly Activity (URSA)
AY 2021-22 Challenges and Goals

1. **Continue to raise the profile of undergraduate research and scholarly activity at UAF.**

A fundamental aspect of URSA's mission is to ensure that UAF students, faculty, and staff are aware of the opportunities available for undergraduate research and creative scholarly activities. To accomplish this goal, there remains an increased efforts to promote URSA funding opportunities via email (e.g., directed emails to each college/school, UAF-sponsored communications such as The Cornerstone), strategically placed announcements throughout campus, presence and participation in UAF events (e.g., New Student Orientation Resource Fair, Inside Out, New Student Orientation, We Are CLA, UA Scholars night, etc.), periodic, directed communications with the Deans of the various colleges/schools, revision to the URSA website, attendance and participation in UA and UAF administrative meetings (e.g., Board of Regents, Provost Council, Dean's Council, etc.), and completion of an annual report each year. URSA will also be developing additional means of raising its profile, including student profile postcards, student-mentor videos for display on the URSA website and via eCampus, and meeting with UAF administrators, faculty, and staff during regularly scheduled meetings (e.g., Recruitment Admissions Meeting, Coordinator Meeting, URSA Faculty and Student Advisory Board Meetings, etc.) and impromptu meetings (e.g., Deans, student focus groups, etc.). The ultimate goal of these efforts is to not only better inform the UAF community on URSA's mission and activities, but to also raise awareness and interest for undergraduate research (as well as research in general) at UAF. To facilitate this goal, URSA will print posters for any undergraduate student presenting their research or creative activity at a workshop, meeting, or conference, regardless of their source of funding. In addition, URSA also has dozens of portable display boards for exhibiting posters which are available for any research event taking place on the UAF campus. From the UAF perspective, URSA serves as a student engagement tool; as such, promoting and showcasing undergraduate research and creative scholarship should be a key component of all UAF student events recruitment and retention events since UAF is the leading research institution in the UA system. Ultimately, these efforts will not only yield an increase in the percentage of undergraduates involved in research and creative scholarship at UAF but will also diversify the types of scholarly activities funded by URSA across the UAF colleges/schools.

2. **Improve student tracking, project cataloging, and outcome assessment** of URSA-sponsored and non-URSA-sponsored research. An important data need at UAF requires that URSA obtain and make available accurate numbers of students and mentors engaged in undergraduate research and creative activities. Collecting comprehensive data is a challenge, especially for those students who are engaged in research and creative activities by virtue of holding a position as a student research assistant. The URSA Coordinator works closely with the Office of PAIR (Planning, Analysis, and Institutional Research), UAF Human Resources, and other undergraduate funding initiatives at UAF (e.g., BLAST [Biomedical Learning and Student Training], Honor's Program, RAHI [Rural Alaska Honors Institute], etc.) on student research participation to facilitate the collection of these data. It is also important to track those projects that are funded by URSA, funded by other units, or not funded at all, and to provide this information to the UAF Chancellor and Provost, other administrators in the UAF Provost's Office, and the Deans of the various UAF colleges/schools for informational purposes. This effort will be a priority for URSA this AY, specifically to determine the percentage of students that participate in undergraduate research and scholarly activity at some point during their educational experience at UAF. The URSA staff will work with staff members in the Office of Admissions, Communications and Marketing, and Development to act as a resource for sharing exciting stories that can be used for promotional purposes. In addition to all of this is the need to conduct outcome assessment to determine whether URSA is making a difference in enhancing the educational experience for UAF undergraduates. Part of the challenge here is identifying not only products (e.g., presentations, displays, publications, etc.) generated by students while they are enrolled at UAF but also identifying these same products once students have graduated from the university. Another component to this is tracking where URSA-funded students end up following graduation (e.g., graduate school, professional school, etc.).

3. **Continue to rely on the URSA Advisory Boards and Review Panels** as active resources to develop and enhance current and future opportunities and initiatives as well as provide direction for the URSA mission. The current structure is that one group of faculty and staff assists with general planning (the URSA Advisory Board) and a separate group of faculty (and some staff and student members) reviews student and faculty mentor applications (the URSA Review Panel). Members of both groups may provide feedback on the operation of URSA as well as bring forward new ideas, initiatives, and concerns related to the URSA mission. In terms of the specific structure and primary responsibilities of these two groups, we have the following: (1) the Advisory Board consists of two faculty members from each academic college/school at UAF as well as staff from other units and meets at least once each semester to discuss policy initiatives and opportunities related to URSA; and (2) the Review Panel meets in accordance with the various due dates of the undergraduate student project, undergraduate student travel, mentor, and ITE requests for proposals and will primarily be responsible for reviewing the submitted proposals (note that there is no limit to the number of individuals that can participate on a review panel). However, both groups are essential for disseminating URSA information and increasing the understanding of URSA funding policies and processes for all interested faculty, staff, and students at UAF. A new addition two years ago was the creation of a Student Advisory Board that also meets once each semester to discuss policy initiatives and opportunities from the student perspective. The Student Advisory Board

consisted of one student representative from each school or college, and the feedback that these individuals contributed was unique in providing the student perspective and perception on the implementation of URSA policies and programs.

4. **Continue to make UAF Research and Creative Activity Day (formerly known as UAF Research Day) the showcase event for undergraduate research and scholarly activity** at UAF. The 2022 Research and Creative Activity Day once more used a virtual platform due to the COVID-19 pandemic, which offered new opportunities for students to present without being present on campus. The use of new technologies and software enabled students to easily present performances, films, and other creative projects. The UAF administration, as well as local members of the UA Board of Regents, will again be notified early during the fall 2022 semester to save the date for the 2023 event (06 April 2023) so that they can attend UAF Research and Creative Activity Day which will revert to an in-person event as in pre-COVID-19 pandemic years.
5. **Explore opportunities to expand URSA funding initiatives**, which will include developing a mechanism for undergraduate research and creative activity at rural UAF campuses, expanding funding availability for undergraduate student grants and consideration of the development of separate URSA-supported internship, capstone, and community-based learning programs. An additional initiative involving the UA Foundation is ongoing discussions to identify additional funding via private donors as funding availability continues to decline during the current UAF budget crisis.
6. **Increase the number of students enrolled in URSA-sponsored courses:** URSA 388 Undergraduate Research and Creative Scholarship I, URSA 488 Undergraduate Research and Creative Scholarship II, and MRAP (Museum Research Apprenticeship Program) 288 and 488. Historically, enrollment in these courses has been low (5-20 students per year), which is in large part due to a general lack of awareness that these opportunities exist. There is tremendous opportunity here to have more students participate in these courses, particularly for academic programs that do not have their own upper-division research/creative scholarship focused courses. There is also a need to develop more tuition-generating courses taught by URSA related to research design and methods of inquiry.
7. **Provide assistance for undergraduate students** to help them prepare for research and scholarly projects at UAF, which will include how to identify project ideas and mentors, write competitive proposals, and prepare posters for presentation purposes.
8. **Enhance the student-mentor experience** at UAF by developing and adopting guidelines, policies, and expectations for both students and mentors. This could result in the development of a student-mentor contract with clear expectations for both individuals (the student and mentor) engaged in research and creative activities. Along with this would be the development of a workshop/expert panel of successful mentors at UAF who would provide the panel audience an opportunity to ask questions and receive feedback on mentoring practices that have and have not worked for them. An outcome of this workshop/panel would be a “best practices” document that URSA can then provide to faculty mentors for guiding their mentoring experience. Another aspect of enhancing the student-mentor experience will be to continue to solicit feedback from students regarding interactions/experiences with their mentor and from mentors regarding their interactions/experiences with their student(s). This feedback will be used to help URSA identify and address potential problem areas as well as highlight positive aspects of the student-mentor relationship.
9. **Continue to assess the impact and outcomes** associated with URSA relative to student’s success at UAF. Although URSA has been in place since 2012, a comprehensive outcomes assessment had not been completed on this program. Since 2018, the Director and Coordinator of URSA have examined metrics used by undergraduate research programs at other universities to identify the appropriate measures for measuring URSA outcomes. Both individuals also attended the 2018 Biennial Council on Undergraduate Research (CUR) Conference in Arlington, Virginia, which had a two-and-a-half-day series of sessions on assessing student outcomes in undergraduate research programs. Based on the information learned at that conference, URSA personnel implemented an outcomes assessment during to assess the annual Research and Creative Activity (RCA) Day event.

Table 1. The number of URSA applications (student project, student travel, mentoring, CEL, ITE, and the supplies/services award combined), awards, and awarded dollars for each college/school for AY2021-2022. The dollar amount awarded also includes awards to students for UAF Research and Creative Activity Day poster presentations.

College/School	Number of Applications	Number of Awards	Dollar Amount Awarded
CBSM	3	2	\$ 5,250
CEM	22	16	\$ 52,199
CFOS	12	8	\$ 28,150
CLA	42	24	\$ 81,653
CNSM	33	21	\$ 73,651
CRCO	4	1	\$ 250
CTC	0	0	\$ 0
DGS	1	1	\$ 5,000
SOE	0	0	\$ 0
MUSEUM	0	0	\$ 0
Total	117	73	\$246,153

Table 2. The number of URSA applications (Apps), awards, and total dollar amount awarded (Dollar Amt.) by award type for each college/school and department/unit within each college/school for AY2021-2022.

College/ School	Department/ Unit	Apps	Awards	Dollar Amt.	Project	Travel	Mentor	ITE	Research & Creative Activity Day	Community Engaged Learning	Supplies & Services
CEM	Alaska Center for Energy and Power	4	2	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Civil, Geo. & Env.	3	3	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Comp. Sci.	2	2	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Electrical Eng.	2	2	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Mechanical	9	5	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Mining & Geo.	1	1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Petroleum	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Water & Env. Res. Center	1	1								
CFOS	Fisheries	9	5	\$ 16,047	\$ 4,999	\$ 0	\$ 7,348	\$ 3,300	\$ 400	\$ 0	\$ 0
	Marine Biology	3	3	\$ 12,103	\$ 0	\$ 0	\$ 9,840	\$ 0	\$ 0	\$ 0	\$ 2,263
	Oceanography	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CLA	AK Native Languages	1	1	\$ 2,475	\$ 2,475	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Anthropology	11	8	\$ 24,385	\$ 5,000	\$ 1,780	\$ 11,104	\$ 4,883	\$ 150	\$ 0	\$ 1,468
	Art	3	1	\$ 4,997	\$ 0	\$ 0	\$ 0	\$ 4,997	\$ 0	\$ 0	\$ 0
	Comm. & Journalism	2	1	\$ 5,000	\$ 0	\$ 0	\$ 0	\$ 5,000	\$ 0	\$ 0	\$ 0
	English	4	4	\$ 14,864	\$ 4,478	\$ 0	\$ 0	\$ 4,110	\$ 0	\$ 0	\$ 6,276
	Foreign Language	1	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	History	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Interdisciplinary Studies	1	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Justice	2	2	\$ 7,500	\$ 2,500	\$ 0	\$ 0	\$ 5,000	\$ 0	\$ 0	\$ 0
	Linguistics	1	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Music	7	3	\$ 8,682	\$ 0	\$ 4,000	\$ 0	\$ 4,182	\$ 0	\$ 500	\$ 0
	Northern Studies	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Philosophy	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Political Sci.	1	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Psychology	4	3	\$ 8,750	\$ 3,832	\$ 0	\$ 4,668	\$ 0	\$ 250	\$ 0	\$ 0	
Social Work	1	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	
Theater & Film	3	1	\$ 5,000	\$ 5,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	

College/ School	Department/ Unit	Apps	Awards	Dollar Amt.	Project	Travel	Mentor	ITE	Research & Creative Activity Day	Community Engaged Learning	Supplies & Services
CNSM	Atmospheric Science	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Bio. & Wildlife	9	4	\$ 19,280	\$ 2,500	\$ 0	\$ 6,777	\$ 4,986	\$ 0	\$ 0	\$ 5,017
	Chem. & Biochem.	7	6	\$ 19,263	\$ 9,960	\$ 0	\$ 0	\$ 9,153	\$ 150	\$ 0	\$ 0
	Geosciences	6	2	\$ 9,935	\$ 0	\$ 0	\$ 0	\$ 9,935	\$ 0	\$ 0	\$ 0
	IAB	4	3	\$ 4,690	\$ 0	\$ 0	\$ 0	\$ 0	\$ 250	\$ 500	\$ 3,940
	IANRE	03	2	\$ 5,712	\$ 5,712	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	IARC	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Math & Stats.	3	2	\$ 5,999	\$ 4,999	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 1,000
	Physics	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Vet Med	2	2	\$ 8,772	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 8,772
CRCD	AK Native Studies	4	1	\$ 250	\$ 0	\$ 0	\$ 0	\$ 0	\$ 250	\$ 0	\$ 0
	NW - Science	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Sciences	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CTC	Process Tech	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Bunnell House	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
DGS	Faculty Development	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Student Support Services	1	1	\$ 5,000	\$ 0	\$ 0	\$ 0	\$ 5,000	\$ 0	\$ 0	\$ 0
	University Relations	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
SOE	Education	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CBSM	Accounting	1	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Bus. Admin.	2	2	\$ 5,250	\$ 0	\$ 0	\$ 0	\$ 5,000	\$ 250	\$ 0	\$ 0
	Economics	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Finance	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Homeland Security	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
MUSEUM	Entomology	0	0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

Table 3. The number of URSA applications (AP), awards (AW), and dollar amount (DA) for each college/school by awards type for AY2021-2022.

College/ School	Student Project			Student Travel			Mentoring			ITE			Research and Creative Activity Day			Community Engaged Learning			Supplies & Services		
	AP	AW	DA	AP	AW	DA	AP	AW	DA	AP	AW	DA	AP	AW	DA	AP	AW	DA	AP	AW	DA
CBSM	0	0	\$ 0	1	0	\$ 0	0	0	\$ 0	1	1	\$5,000	1	1	\$250	0	0	\$ 0	0	0	\$ 0
CEM	4	3	\$11,698	1	1	\$4,000	2	2	\$10,448	5	4	\$17,244	2	2	\$400	2	0	\$ 0	6	4	\$8,409
CFOS	1	1	\$4,999	0	0	\$ 0	4	3	\$17,188	0	0	\$ 0	2	2	\$400	2	0	\$ 0	5	2	\$5,563
CLA	16	6	\$23,285	3	3	\$5,780	3	3	\$15,772	6	6	\$28,172	2	2	\$400	2	1	\$500	10	3	\$7,744
CNSM	12	7	\$23,171	0	0	\$ 0	3	1	\$6,777	6	5	\$23,693	2	2	\$400	2	1	\$500	9	5	\$19,110
CRCD	1	0	\$ 0	0	0	\$ 0	1	0	\$ 0	0	0	\$ 0	1	1	\$250	0	0	\$ 0	0	0	\$ 0
CTC	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0
DGS	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	1	1	\$5,000	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0
SOE	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0
MUSEUM	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0	0	0	\$ 0

The University of Alaska is an affirmative action/equal opportunity employer and educational institution. The University of Alaska does not discriminate on the basis of race, religion, color, national origin, citizenship, age, sex, physical or mental disability, status as a protected veteran, marital status, changes in marital status, pregnancy, childbirth or related medical conditions, parenthood, sexual orientation, gender identity, political affiliation or belief, genetic information, or other legally protected status. The University's commitment to nondiscrimination, including against sex discrimination, applies to students, employees, and applicants for admission and employment. Contact information, applicable laws, and complaint procedures are included on UA's statement of nondiscrimination available at www.alaska.edu/titleIXcompliance/nondiscrimination