



Alaska Summer Research Academy

College of Natural Science and Mathematics, University of Alaska Fairbanks, PO Box 755940, Fairbanks, AK 99775

(907) 474 7703 • Fax (907) 474 5101 • www.uaf.edu/asra

ASRA Request for Module Proposals

Deadline: Friday, **November 16, 2018**

Contact: Christa Mulder (cpmulder@alaska.edu, 474-7703), ASRA Director

Overview

The Alaska Summer Research Academy (ASRA) offers research and problem-based learning experiences to students entering grades 6-12. Students enroll in a module that focuses on one area of study over the course of two weeks, and complete individual or group research projects. Modules are designed to be fun and engaging, while containing challenging content. All are set in a context that will interest students. There are no exams, grades, or homework. ASRA experiences should be hands-on, with very little lecturing. Goals include building interest in STEM and exposing students to a college setting. Admission to ASRA is competitive, and students are very interested and engaged.

ASRA is seeking proposals for modules for the summer of 2019. Instructor teams develop and teach the content of a module; there are 8-10 students per module. We encourage instructors to think broadly – modules can be focused on biology, chemistry, geology, physics, engineering, math, or an interdisciplinary topic. We are also open to STEAM modules (modules that combine science or engineering and the arts). Most modules take place on the UAF campus, but some modules spend some of most of the time in remote areas (e.g., a marine biology module may go to the Kenai Peninsula, or an archeology module at a dig site) or at off-campus location in Fairbanks (e.g., the hospital or a local vet clinic).

Modules are aimed at either middle school students (entering grades 6-8 in the fall) or high school students (entering grades 9-12). Examples of middle school modules in 2018 include *Filming Permafrost Adventures*, *Prehistoric Planet*, and *Robotics: Sea, Land and Air*. Examples of 2018 high school modules include *Biomedicine*, *Time Sleuths* (archeology), *Air, Water and Soil*, *Oh My!* (environmental chemistry), and *Science Storytelling through Digital Design*. To learn more about these examples and others, visit our website (www.uaf.edu/asra).



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Please note that due to funding constraints we will only be able to accept two or three unsubsidized modules. If you have a subsidized module we still need a proposal from you.

Instructors

Instructors teams may be comprised of faculty, post-docs, graduate students, K-12 teachers, or other professionals in the STEM fields (including individuals not formally associated with the university or the school district). Most teams have two lead instructors (and sometimes additional instructors) and include at least one person with a science or engineering background and one person with experience teaching middle or high school students. If you are a researcher interested in working with a K-12 teacher, ASRA staff may be able to connect you to an interested teacher. Conversely, if you are a teacher interested in ASRA, we may be able to connect you with interested researchers. If you don't fit any of these categorizations but are interested in developing a module, please contact us!

ASRA logistics

In 2019 ASRA will be held **July 8-19**. For modules without a remote component ASRA is a day camp only (no housing is offered), and instructors teach from 9 am to 5 pm (with the weekend off). For modules that include a remote component, instructors are expected to be with the students during the entire time at the remote location. On the final day of ASRA, July 19, students present their work in a public forum, with a pizza lunch.

What we provide

ASRA provides \$5000 per module in pay for instructors (at least two instructors are required); this can be divided equally between two lead instructors or in some other fashion if there are more than two instructors. Pay is "loaded"; if you are a UAF employee benefits are included in this total (for a faculty member \$2500 would result in approximately \$1900 net pay). ASRA also provides space (for on-campus modules), a supply budget (usually a maximum of \$1000), assistance with purchasing supplies, and logistical support (e.g., access to computers, a 12-person van). We also provide mentoring, especially for first-time ASRA instructors. ASRA does not provide food (except for snacks, and pizza on the final day), travel, lodging, or parking costs.

How to propose a module

To propose a module, please provide a summary (maximum 3 pages) that includes the following information:

- 1) A title that will appeal to students



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- 2) A description of the module, including sample activities
- 3) Whether the module is intended for middle school (grades 6-8) or high school (grades 9-12). If you are willing to provide either, please indicate that. Note: we tend to have a greater applicant to module ratio for middle school, so please consider this age group.
- 4) Names and contact information for the proposed instructors (two instructors are required for each module). If you do not yet have a second instructor, please describe the skills and traits you are looking for and we may be able to help you locate them.
- 5) Qualifications of the proposed instructors. Please include any experience or familiarity with hands-on or problem-based learning techniques.
- 6) Learning goals of the proposed module, and science content that will be covered
- 7) A budget, detailing supplies needed (limit is usually \$1000). Note: ASRA-owned supplies and equipment are available for use – contact us for details.
- 8) Any in-kind support you can offer (e.g., salary support, specialized equipment, etc.)
- 9) Any special logistical or equipment needs (e.g., specific computer needs, remote camp needs, vans for field trips, etc.).
- 10) Whether you would like to request Saturday, July 13, as an additional day of instruction (most modules will not meet on Saturday).

Submit your proposal by Friday, **November 16, 2018**, to Christa Mulder, ASRA Director, at cpmulder@alaska.edu.

For general questions, please contact Christa Mulder at 907-474-7703. For questions about logistics, please contact Lynnette Dunn, Program Manager, at (907)-474-7221.

We look forward to seeing your proposal!