STUDENT COMPETITION ANNOUNCEMENT:

Food Security in the Arctic
Deadline: Extended from February 1, 2016 to February 29, 2016 (Essay and Engineering Contests)
February 29, 2016 (Media Contest)

Historically, many rural and remote Arctic communities have relied on hunting, fishing, and gathering as the primary methods of food acquisition. Some residents have been growing food for centuries in spite of regional variations in soils and weather patterns. Yet currently, more than 95 percent of the food consumed by Alaska residents are produced elsewhere. Over the course of its journey to Alaska, this food travels over a transportation network that is subject to high fuel costs and delays. Over time, its nutritional value decreases. Sometimes, the food spoils. For these reasons, food security has been identified as a major research and policy priority for the communities in the Arctic.

Circumpolar governments, including Alaska’s, have developed policies to increase agricultural production in order to provide fresh, wholesome, and nutritious food to residents. Over the last several years, researchers and policy makers have held numerous conferences on the subject of practicing sustainable agriculture in the Arctic. Yet greater attention is still needed on essential issues stemming from the fragility of the environment, the length of the growing season, the techniques of agricultural production, and the difficulties involved in energy-efficient, large-scale, cold-climate food storage.

Through a series of three contests, we invite students to address some of the issues inherent in developing environmentally responsible agricultural practices in the Arctic. As they think about their entries, students should consider strategies for protecting the environment from invasive pathogens, insects, and weeds; preventing the persistence of pesticides in Arctic soils and their carry-over in food; mitigating indigenous and immigrant pathogens using beneficial microorganisms discovered in the Arctic; extending the growing season via mechanical and biological means; domesticating native plants that possess significant medicinal or other values; and protecting biodiversity.

If you have any questions, please contact Dr. Jenifer Huang McBeath, contest co-chair, by email at jhmcbeath@alaska.edu or by phone at 907-474-7431.

This contest is sponsored by

- The School of Natural Resources and Extension (SNRE)
- Undergraduate Research and Scholarly Activity (URSA)
- The National Science Foundation (NSF)

Contest Committee Members

- Jenifer Huang McBeath, Co-Chair, Plant Pathology and Biotechnology, SNRE, UAF
- Meriam Karlsson, Co-Chair, Horticulture, SNRE, UAF
- Peter Stougaard, Co-Chair, Microbiology and Biochemistry, University of Copenhagen
- Wendy Croskrey, Art, CLA, UAF
- Elaine Drew, Anthropology, CLA, UAF
- Chuen-Sen Lin, Mechanical Engineering, CEM, UAF
- Jason McNeely, Electrical and Computer Engineering, CEM, UAF
- Debu Misra, Geological Engineering, CEM, UAF
- Jennifer Schell, English, CLA, UAF
- Maya Salganek, Film/Video, CLA, UAF
Food Security in the Arctic
2016 Student Entry Form
All entries must be accompanied by this entry form.

Check the appropriate box for this entry:

□ Essay       □ Media       □ Engineering

(Please print clearly.)

Contestant Name/s: _________________________________________________________________

Email: ________________________________________________________________________

UAF Degree Program: ________________________________________________________________________

Title of Entry: ________________________________________________________________________

All entries must be received by the deadline specified in the contest description.
Please submit your entry to: www.uaf.edu/snre/fsa/
UAF Undergraduate Student Contests and Prizes

We invite entries from currently enrolled UAF undergraduate students in three categories: essay contest, media contest, and engineering contest.

All submissions must include a completed Student Entry Form (see attached) by the deadline specified. Students entering multiple contests should submit multiple entry forms (one form per entry). Entries that do not have a completed entry form will be disqualified. Qualified entries will be judged by panels of university faculty. Finalists for the essay and engineering contests will be notified by February 15, 2016. All finalists in the essay and engineering contests will be required to present a poster at the Arctic Science Summit Week. Support for the preparation and printing of posters will be provided. The posters for the finalists will be due on March 1. Winners will be announced at an award ceremony on March 31 and also in the UAF student newspaper and other university social media.

Each contest will award three prizes for the best entries in their category:

1st place = $1,000 cash prize and certificate
2nd place = $500 cash prize and certificate
3rd place = $250 cash prize and certificate
5 honorable mentions = certificate

Essay Contest

- We invite UAF undergraduate students to submit essays that address some of the current challenges involved in growing and storing food in Arctic communities. Submissions should respond to the following questions: Why should growing and storing food be considered alongside traditional subsistence practices such as hunting, fishing, and gathering? How might Arctic communities integrate these practices? What are some of the complexities involved?
- Essays should be no longer than eight pages, double-spaced and use a 12 pt. Times New Roman font with one-inch margins. Please include an abstract of 200 words or less on the first page. The abstract counts toward the eight-page maximum page limit.
- Essays should be well researched, and they should adhere to the Chicago Manual of Style or Turabian Style. Remember, citations allow you to acknowledge your sources and to show that you are aware of the background and context into which your work fits. The notes and bibliography count toward the eight-page maximum limit.
- Please submit your Student Entry Form and your original essay (in MS Word document .doc or .docx file format) via email attachments to www.uaf.edu/snre/fsa/. Essays will be judged on clarity, content, and originality. The deadline for entries has been extended from Monday, February 1, 2016 at 11:59 p.m. AST to Monday, February 29, 2016 at 11:59 p.m. AST.

Media Contest

- We invite UAF undergraduate students to submit a short public service announcement (PSA) video that represents some of the current challenges involved in growing and storing food in Arctic communities. The video should be 30 seconds in length.
- The video should respond to one of more of the following questions: Why should growing and storing food be considered alongside traditional subsistence practices such as hunting, fishing, and gathering? How might Arctic communities integrate these practices? How can a PSA promote the sharing the traditional knowledge of protecting the environment and biodiversity? What are some of the complexities involved?
Films or videos should be submitted as an uncompressed .mov or .mp4 file. Please make sure to check that your file works prior to sending. Retain a master copy for your records. Preference is in 1080P 30fps, but any type of video submission is appreciated. Finalists’ videos may be shown on KUAC.

Candidates are responsible for obtaining written releases granting the rights to use the name, likeness and performance from any individual appearing in any submission to UAF. If a person appearing in a submission is a minor, the release must be obtained from a parent or legal guardian. We reserve the right to request proof of such release in a form acceptable to the program from any submitter at any time.

You must own or obtain all rights necessary, including music rights, for your submission. If applicable, all copyrighted material must be cleared before submission and all relevant documents must be submitted with your entry.

All submitting entities and/or individuals are advised to include credits and to carefully review those credits prior to submission.

Please submit your PSA at www.uaf.edu/snre/fsa/. Entries will be judged on content and originality. Entries must be received by 11:59 p.m. AST on Monday, February 29, 2016.

Engineering Contest

We invite UAF undergraduate students to submit an engineering design that addresses a particular challenge in the area of environmentally smart food production systems in the Arctic. At present, perishable foods are shipped into many Arctic towns and villages from distant locations. By the time these foods arrive, the quality has diminished and the cost has increased. The alternatives for residents of these communities involve growing and storing their own food or storing food that is grown and transported from a nearby location in the state. We are soliciting designs that attempt to resolve the problem of energy-efficient and environmentally friendly large-scale food storage in the Arctic. Designers should research and consider the ideal conditions that aid in cold-climate food storage. They should also consider already existing ideas about and modes of cold-climate food storage.

The first phase is the design challenge. An individual student or group of students may submit a design. Multidisciplinary teams are encouraged. The design must include details of materials and devices that will be used, any novel ideas involved in making it a reality, and any other relevant information. The submission should include the Student Entry Form along with the Design Document. The maximum length of the design should be five pages of text (images and figures do not count toward the page limit). Winners will be chosen from the pool of submitted designs. In addition to the top three awarded designs, an additional group of honorable mentions may be included. The deadline for first phase entries has been extended from Monday, February 1, 2016 at 11:59 p.m. AST to Monday, February 29, 2016 at 11:59 p.m. AST.

Please submit your Student Entry Form and your original design at www.uaf.edu/snre/fsa/. Designs will be judged on practicality and originality.

The designer(s) of the winning entry will be invited to move into the second phase, which is to build a prototype of the design. In the prototyping phase, designers may assemble a team to help them. Prototypes may be a physical implementation (small-scale versions are acceptable), or animation/simulation of the idea. Combinations of partial physical prototypes with animations/simulations are also acceptable. This is intended to demonstrate the feasibility of the idea and/or showcase it to a larger audience. A budget of $5,000 will be allowed for the construction of the prototype, but this should not be construed to restrict the design idea itself. The prototype is expected to be completed by March 31, 2016.