

CALL FOR PROPOSALS

2017 UAF Global Change Student Research Grant Competition

The **Global Change Student Research Grant Competition** provides support to UAF students for research related to global change with a focus on arctic and subarctic boreal regions (including but not limited to North America). It is designed to give students experience with proposal writing and the peer review system as practiced by science and engineering funding agencies. We seek proposals involving the environmental, social, or engineering components of global change (including but not limited to climate change) and its effect upon arctic or subarctic processes, ecosystems, and/or societies. Students must place the proposed work in a broader context by explaining its relevance to other academic disciplines and endeavors.

IMPORTANT — Funding priorities for graduate proposals: The majority of funding available for graduate proposals in this competition cycle is related to the Cooperative Institute for Alaska Research (CIFAR) and the Alaska Center for Climate Assessment and Policy (ACCAP)—*see research themes at the bottom of page 2*. A very small number of proposals that do not address CIFAR or ACCAP themes may also be funded. We anticipate being able to fund a total of 7–15 graduate proposals, depending on the amounts requested.

Undergraduate proposals selected for funding will be supported by the UAF office of Undergraduate Research and Scholarly Activity (URSA); all undergraduate proposals meeting the general requirements of this competition will be considered equally. We anticipate being able to fund a total of 1–2 undergraduate proposals, depending on the amounts requested.

Eligibility Information:

- Applicants must be enrolled in a degree-granting program at UAF at the time the research will be conducted. **Graduate and undergraduate proposals will be evaluated separately.**
- Applicants may submit only one proposal per year, and **only 2 proposals during their UAF student career**. However, proposals submitted **prior to 2013**, regardless of the number submitted, will be counted as a single submission for this purpose.
- Proposal must be written by the student principal investigator (PI). However, students are encouraged to get input and feedback from advisors.
- **NEW:** Budgets must be prepared with the assistance of a UAF proposal coordinator.
- Applicants should request a start date of no earlier than July 1, 2017 and no later than January 1, 2018. Funds must be spent by June 30, 2018.
- There can be more than one student PI on a proposal, as long as each PI meets the eligibility requirements. Budget maximums apply per proposal regardless of the number of PIs.
- Awards are for one year only. Maximum budget request for graduate proposals is \$10,000, and \$7,500 for undergraduate proposals.

Read and follow the complete guidelines carefully. Questions should be directed to Barb Hameister, bahameister@alaska.edu; (907) 474-5818

Proposal deadline: 5 p.m. Alaska Standard Time on Friday, February 10, 2017

Students are urged to examine information on sponsor requirements, budget preparation, funding limits, and eligibility before investing time in proposal development. If you have questions about whether your project is relevant to this call, please ask.

Introduction

For the purpose of this call, global change research includes the observation and study of the processes, interactions, and feedbacks among the components of the Earth system (atmospheric, oceanic, hydrologic, ecologic, and human) in both the past and present, in order to anticipate future changes, develop effective responses to change including the means for sustainable management of resources and ecosystem services, and to ensure societal and cultural viability and adaptation over the long term. Global change includes but is not limited to climate change.

The **Global Change Student Research Grant Competition**, administered by the UAF Graduate School in partnership with the Cooperative Institute for Alaska Research (CIFAR), the Robert Belous Global Change Research Endowment, the Alaska Center for Climate Assessment and Policy (ACCAP) and the UAF Office of Undergraduate Research and Scholarly Activity (URSA), provides support to UAF students for research related to global change with a focus on arctic or subarctic boreal regions presented in a broader context. Initiated at UAF in 1992 under the auspices of the UAF Center for Global Change and Arctic System Research, this competition is designed to give students experience with proposal writing and the peer review system as practiced by science and engineering funding agencies. **The proposed work may involve research in the environmental or social sciences or engineering, and students must articulate the relevance of their proposal to global change or its effect upon arctic or subarctic processes, ecosystems, and/or societies.** Proposals may employ field studies, laboratory experiments, retrospective analyses, policy studies, survey tools, modeling, or other innovative research approaches including traditional ecological knowledge. Students are encouraged to examine the range of past projects: www.cgc.uaf.edu/student_grant/awardees.html

For the current funding cycle, *in addition to meeting the general requirements of this competition*, **the majority of graduate projects selected for funding will need to address one of the research themes** of the NOAA–UAF Cooperative Institute for Alaska Research (CIFAR), or the Alaska Center for Climate Assessment and Policy (ACCAP).

CIFAR themes:

- (1) **Ecosystem Function** – Gain sufficient knowledge of Alaskan marine ecosystems to forecast their response to both natural and anthropogenic change.
- (2) **Coastal Hazards** - Improve understanding of coastal hazards, storms, and tsunamis that affect Alaska’s population, ecosystems, and coast to improve weather forecast and warning accuracy.
- (3) **Climate Change and Variability** - Foster climate research targeted at societal needs and advance Arctic climate research to improve predictive capacity of climate variations affecting coastal regions and ecosystems.

ACCAP themes:

- (1) Coastal community climate resilience and adaptation.
- (2) Variability, trends and societal impacts of extreme climate events, with decision-support as a target of the research.
- (3) Decision-relevant sea ice information and services.

Required Proposal Elements

Any proposal that exceeds specified page limits or is missing one or more of the required elements **may be rejected without further review**.

Required Elements (note specific page limits; see below for complete information):

1. **Proposal Cover Sheet** as a Microsoft Word document
2. **Project Narrative** (6 page limit including project summary, figures and tables)
3. **References Cited** (2 page limit)
4. **Project Schedule** (1 page limit)
5. **Budget, Budget Justification and Other Sources of Project Support** (2 pg. limit)
6. **Vitae of Student Principal Investigator(s)** (1 page limit per investigator)
7. **Letters Verifying In-kind Support** (1 page limit each)
8. **Signed Letter of Support from Student's Advisor(s) or Sponsor(s)** (1 page limit)

1. **Proposal Cover Sheet:** There are separate electronic cover sheet forms (in Microsoft Word) for undergraduate and graduate students. All shaded boxes on the appropriate form need to be filled. Download forms at www.cgc.uaf.edu/student_grant/competition.html

In addition to following the instructions on the form, please note that the **title** of your project must be **brief, scientifically or technically valid, and clearly indicate the relationship of the research to global change**. Requested start date for any proposal can be no earlier than July 1, 2017 or later than January 1, 2018.

1. **Not everyone who evaluates your proposal will be an expert in what you are proposing to do—so explain things clearly using plain English as much as possible. If you make it easy to understand, your reviewers can focus on your ideas and proposed work, and not have to decipher what you are talking about.**
2. **Early in your narrative, describe the role you will play in the work proposed and explain what the requested funds will be used for.**

2. **Project Narrative** (6 page limit including all figures and tables): Project narrative must be single spaced in 12 point standard text font (or in 10 or 11 point font with 12 point spacing), with pages numbered consecutively and margins at least 1" all around. You must include the following sections:

Abstract (200 words or less): Though it appears first, the abstract should be written last as a concise summary of the research being proposed, and briefly include your objectives, hypotheses and methods. Your name and project title should appear immediately before the abstract but will not be counted against the 200-word limit.

Introduction and Background: Begin with a succinct statement of what is being proposed and then provide any relevant background information necessary to introduce the subject to a non-specialist audience. Limit the literature cited in this section to works specifically pertinent to the proposed study. Include a discussion of previous work done

by you, your mentors, or others, to let the reader know how the proposed research will build upon what has already been done.

Justification and Need: Clearly explain how your proposal is related to global change or its effects in the Arctic and/or Subarctic, and the relevance of this research to other academic disciplines and endeavors. See introduction on page 2 for our definition of “global change research.” Graduate proposals only: If you are addressing a CIFAR or ACCAP research theme in your proposal (see bottom of page 2), mention it here.

Research Objectives and Approach: Describe the specific objectives of the project, preferably in terms of the hypotheses to be addressed. Explain the conceptual approach for achieving objectives and the methods to be used in sufficient detail that feasibility can be evaluated by reviewers—not all of whom will be specialists in your field.

- Be realistic in designing the research. Probably the comment most frequently made by reviewers is that the research should be scaled down to a more specific and manageable project.
- Clearly distinguish between long-range research goals (your own or those of your research group) and the specific short-range objectives for which this funding is being sought.
- Make a clear connection between your research methods and research objectives.
- Be specific about the methods to be used in evaluating the collected data or analyses.
- If you have preliminary data or results, be sure to include them.
- There may be permits necessary for you to conduct your work. These could be land-use permits, Fish and Game collection permits, human or animal research permits, radio-isotopes, etc. You must work with your advisor to **make sure the necessary permits are in place before you begin any tasks or activities for which permits are required.**

Additional information required from applicants who have previously submitted a proposal to this competition (1-page limit; does not count against the 6-page Project Narrative limit): You must mention all proposals you have previously submitted to this competition (funded or not) and discuss the relationship, if any, of the current proposal to prior submission(s). Please also tell us if your name has changed since your last proposal submission. **Proposals that fail to acknowledge a prior submission will not pass prescreening.** Copies of prior proposals and reviews may be provided to this year’s reviewers, so you are strongly urged to address prior comments in your current proposal. In addition, carefully review your submission for overall clarity and **adherence to the current competition guidelines.**

- 3. References Cited** (2 page limit): Reference information is required. For citations within the text use author name(s) and year of publication (e.g., Roberts, 2002; Smith and Jones, 2005). The “References Cited” section should be sorted by last name, then year. References should be in a consistent format and must include the names of all authors in the same sequence in which they appear in the publication; the article title, book or journal title; volume number; page numbers; and year of publication. Check that each citation in the text is included in the “References Cited” section, and vice versa.

- 4. Project Schedule** (1 page limit): Provide a timetable (such as a Gantt chart) with a schedule of the work you propose to do with funds from this competition. Be as detailed as possible. When will the first step be completed? When can subsequent steps be started? An example is given below. **Remember that your start date must be no earlier than 1 July 2017 and no later than 1 January 2018. Funds must be spent by 30 June 2018.**

Timeline: milestones and schedule of delivery

Project Objectives	FY18			
	J-S	O-D	J-M	A-J
Collect field samples and begin sorting				
Order field supplies & clean sample vials				
Collect water and invertebrate samples				
Sieve sediment samples and size sort organisms				
Identify organisms & work up data				
Identify major species in each size sample & location				
Select samples for lipid analyses				
Laboratory analyses and writing up results				
Process samples				
Statistical analysis				
Data interpretation & writing				

- 5. Budget, Budget Justification and Other Sources of Project Support** (2 page limit):

NEW: You must work with your department-level Proposal Coordinator as you develop your project budget. Once you have decided to submit a proposal to this competition, please make initial contact with your coordinator even if you don't yet know exactly what will be in your budget. They will be able to assist you as you move forward. Contact should be made as early as possible and no later than 2 weeks prior to the submission deadline. Proposal coordinators are there to help you, but they have busy schedules and often need to juggle multiple priorities, and it's important to make contact early so they can integrate you into their workload. *See page 8 for a list of contact emails.*

In your proposal, the budget should be presented in the form of a table, and itemized into eligible categories that may include student salaries, equipment, travel, services, and supplies. **A sample budget table is provided on page 9.** Budget should include all items requested by this proposed student grant, and may not exceed \$10,000 for graduate proposals or \$7,500 for undergraduate proposals. No indirect costs (overhead/F&A) may be charged. All totals should be rounded to the nearest dollar, and the proposal budget total in the budget section must agree with the amount listed on the cover sheet. **Awards cannot be used for student tuition or health insurance.**

In the current tight fiscal climate, requests for travel directly related to research will have higher priority than for travel to conferences to present results. Travel expenses must specify

destination and be itemized (e.g., airfare, lodging, meals). Note that meeting registration and poster printing costs, as well as accommodation at Toolik Lake and the CFOS apartments in Seward and Kodiak, are categorized as Services, not Travel. Student stipend expenses may not exceed guidelines appropriate for the student's department or institute.

As you prepare your budget, please remember that these awards are intended to provide support for you as the student PI, rather than for faculty or staff.

In your **budget justification section (1–2 paragraphs)**, explain how each proposed expenditure will facilitate the proposed research. Include a paragraph in the budget justification section and a column on the budget table to detail all other sources (current or pending) of research funding. This includes project or student support such as teaching or research assistantships, and current and/or pending grants to your faculty advisor that are directly related to the proposed work. Clearly show what expenses are covered by these other sources of funding, versus what you are requesting from this competition.

6. **Vitae for Principal Investigator(s)** (1 page limit per student investigator): Student vitae should include your name, contact information, education, relevant presentations and publications. **Clearly indicate when you began (or will begin) the degree program for which this proposal is being submitted, and the expected completion date.**
7. **Letters Verifying In-kind Support** (1 page limit each): You must provide verification, generally in the form of a brief letter, for any in-kind support mentioned in your proposal. Some examples: if a collaborator has promised to let you use their lab space, equipment, or a data set; if a collaborator has said they'll train you on a particular technique; if someone has volunteered their labor for your project; if you have been given permission to access private property to conduct part of your research.
8. **Signed Letter of Support from Student's Advisor(s) or Sponsor(s)** (1 page limit): A letter of support is required from your faculty advisor(s) or sponsor(s). (Graduate students: this means your graduate committee chair.) **This must be the same person who is named on the cover sheet**; any exception must be approved prior to the deadline. **If you have two co-advisors (or co-sponsors), we need a joint letter** that both have signed. The letter of support should indicate that the faculty member has reviewed the student proposal and:
 - *agrees that the proposed research is feasible and can be conducted within the timeframe, budget and technical means described in the proposal;*
 - *states whether permits are necessary, are held, will be filed, etc.;*
 - *will provide supervisory guidance and fiscal oversight of the project;*
 - *confirms that the listed current and pending funding related to the student's research project are accurate.*Faculty sponsors of undergraduate applicants are asked to discuss the student's level of motivation and commitment to completing the proposed research project and how the project is related to research being done in their laboratory or program or to the student's program of study.
9. **Suggested reviewers** Suggestions of qualified, impartial reviewers are welcome and should be included in the **cover email message** when you submit your proposal. These individuals do not need to be from UAF.

Proposal Submission Instructions and Deadline

(A suggested checklist for the 2017 application packet is on page 10)

Item 1, the cover sheet (undergraduate or graduate form) must be submitted as a separate electronic Microsoft Word document. Be sure to follow the instructions on the form itself.

Items 2–6, the body of the proposal, should be submitted as a single Microsoft Word or Adobe PDF document. Use 12 point standard text font (or 10 or 11 point font with 12 point spacing), **with page margins of at least one inch**. Page size must be 8½ by 11 inches, and pages should be numbered consecutively within the document.

Item 7, the letters verifying in-kind support, should be incorporated into the proposal after the main body of the proposal and before the advisor's letter of support.

Item 8, the letter of support, should be submitted at the same time as the rest of the proposal if possible and ideally will be included as the final page of the proposal document. Either a scan of a signed hardcopy, or a digital signature, is acceptable. If necessary the faculty member may email the letter from their University of Alaska email account (with the student's first and last name in the subject line) directly to the addresses below. In any case, **the letter of support must arrive by the proposal deadline**.

The items listed above must be emailed by the student PI to both bahameister@alaska.edu and macastellini@alaska.edu by 5 p.m. Alaska Standard Time on Friday, February 10, 2017.

- We strongly urge that you ask someone not familiar with your research to carefully read and provide feedback on the readability of your proposal prior to submission.
- **Check your submission *VERY* carefully before sending and make sure all required files are attached.**
- We will send an acknowledgement after your entire proposal packet has been received. (But please be patient; this may not happen immediately!)
- It is your responsibility as the student PI to make sure we receive your letter of support prior to the deadline if it is submitted separately from your proposal text and cover sheet.
- **Any proposal received after the deadline may be rejected without further consideration.**

Proposal Evaluation Criteria

Proposals will be prescreened for compliance with proposal guidelines and overall presentation (coherence, correct English usage, absence of typographical and citation errors). Proposals remaining after this screening will be reviewed by UAF faculty and other professionals, and evaluated as follows:

- 70% on scientific and technical merit, including feasibility, timeline and budget;
- 30% on relevance to the call, including global change focus, broader context, and writing for a non-specialist audience.

A review panel will be assembled to make funding recommendations. Depending on the number of proposals received and the amount of available funding, proposals receiving lower reviews may not be considered by the review panel. **Undergraduate and graduate proposals will be evaluated separately.** The number and distribution of funded projects will be determined by the number of quality proposals received and their relevance to the funding sources available, the amount of funding requested by these students, and the total available funding. Some projects may be funded at a lower level than requested.

Applicants will be notified of funding decisions by late April 2017; feedback will be returned in May 2017.

Questions ?

Program contact: Barb Hameister, bahameister@alaska.edu; (907) 474-5818

Email contacts for proposal coordinators, by unit

CFOS, GI, CDR, IARC, CLA and SNRE: uaf-opd@alaska.edu

UA Museum: barbara.ellanna@alaska.edu

CEM/INE: sboatwright@alaska.edu

IAB: slpreshaw@alaska.edu

SOE: smwood@alaska.edu

SOM: fmdavis@alaska.edu

CRCD: sheena@alaska.edu

SAMPLE BUDGET TABLE

Budget items and dollar amounts shown here are for illustration only. Use footnotes to explain sources of "other" support.

CATEGORY	SOURCE	
	<i>This proposal</i>	<i>Other</i>
SALARIES		
Field assistant, 2 mos.	\$1000	
Student PI summer stipend	<u>\$4000</u>	
TOTAL SALARIES	\$5000	
<i>(Other salary support)</i>		^a \$8000
EQUIPMENT (non-expendable property with a unit cost of ≥ \$5,000 & a useful life of more than one year)		
None requested	<u>0</u>	
TOTAL EQUIPMENT	\$0	
<i>(Other equipment support)</i>		^a \$8200
TRAVEL (Specify domestic or international)		
<i>Domestic</i>		
Mileage to field site (private vehicle) 200 mi RT @ \$0.575/mi	<u>\$115</u>	
<i>Total Domestic Travel</i>	<u>\$115</u>	
TOTAL TRAVEL	\$115	
<i>(Other travel support)</i>		^b \$1000
SERVICES		
User days at Toolik for 5 days @ \$89/day	\$445	
Lipid analyses, \$5/sample x 40 samples	\$200	
Shipping of equipment to field site	\$100	
Printing charges for research poster	\$40	
Registration fee for XYZ conference	<u>\$125</u>	
TOTAL SERVICES	\$910	
<i>(Other services support)</i>		^a \$3500
SUPPLIES (also referred to as COMMODITIES)		
Misc. lab supplies (e.g., pipettes, gloves, sample bags)	\$200	
Laptop computer for recording data in field	<u>\$950</u>	
TOTAL SUPPLIES	\$1150	
<i>(Other supplies support)</i>		0
TOTAL FUNDING REQUESTED from this competition	\$7175	
Total other funding		\$20,700

(sources: a = NSF grant of Dr. John Doe; b = departmental travel award to PI)

Checklist for 2017 Global Change Student Research Grant Proposals (*do not submit with proposal*)

- Cover sheet. **Submit this as an electronic Word document** (do not convert to a PDF).
- Use 8½ by 11 inches page size with at least 1” margins all around and a standard 12 point text font, or 10 or 11 point font with 12 point spacing.
- Narrative (**6 page limit** including all figures and tables, single-spaced, with pages numbered consecutively) – *see guidelines for what should be included in each section*
 - Abstract (less than 200 words), preceded by PI name and project title
 - Introduction and background
 - Justification and need
 - Research objectives and approach
 - (If applicable) Relationship of this proposal to any prior submission to this competition [1 page limit—does not count toward 6-page narrative limit]
- References Cited (**2 page limit** with references sorted by last name then year)
 - All citations in text are included in “References Cited” section, and *vice versa*.
- Project Schedule (**1 page limit**)
 - Time table (such as a Gantt chart) of project milestones beginning no earlier than 1 July 2017 or later than 1 January 2018.
- Budget & Justification (**2 page limit**, *see sample budget table on page 9*)
 - Itemized budget broken out by category. GCSRGC budget should include only those items requested in this proposal. No indirect costs (overhead/F&A) may be charged. Round totals to the nearest dollar, and **be sure they match the total on the cover sheet**.
 - Thorough budget justification for all items listed in budget (1–2 paragraphs).
 - Additional paragraph and table column that shows all other sources (current or pending) of project or student support.
- A curriculum vitae for each student principal investigator (**1 page limit** per student)
- Letters verifying in-kind support (**1 page limit** per letter)
- A signed letter of support from student’s advisor(s) or sponsor(s) (**1 page limit**)—*must be from the same person who is listed on the cover sheet*. For graduate students, this means your graduate committee chair.

This checklist is provided as a tool for the student PI prior to submission; consult the guidelines for full instructions on preparing your proposal.