CALL FOR PROPOSALS

2016 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 NOAA–UAF Cooperative Institute for Alaska Research (CIFAR), and must be used to support projects that fall under one of CIFAR’s three research themes (see page 2) in addition to meeting the general requirements of this competition. A very small number of proposals that do not address these themes may also be funded. We anticipate being able to fund a total of 5–10 CIFAR-relevant projects and 1–3 others, 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 2–3 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.

• Proposals must be written entirely by the student principal investigator (PI). However, it is acceptable for the student PIs to garner comments and suggestions from advisors prior to submission.

• Applicants should request a start date of no earlier than July 1, 2016 and no later than January 1, 2017. Funds must be spent by June 30, 2017.

• 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. Friday, February 5, 2016
Students are urged to examine information on sponsor requirements, funding limits, allowable expenses, 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 solicitation, 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 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 projects funded during the past 15 years at: http://www.cgc.uaf.edu/student_grant/

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):

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.

See http://www.cifar.uaf.edu/education/new_CIFAR_awardees.php for projects that CIFAR has supported through this competition in recent years.
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. **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. Forms are available at:
   
   [http://www.cgc.uaf.edu/student_grant/Competition.html](http://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**. Using the checkboxes, indicate whether your proposal addresses any CIFAR themes (graduate proposals only). Requested start date for any proposal can be no earlier than July 1, 2016 or later than January 1, 2017.

   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 try and decipher what you are talking about.

2. **Project Narrative** (6 page limit including all figures and tables): Project narrative must be single spaced in 12 point (or larger) standard text font, 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 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. Your proposal should 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. These may already be held by your supervisor, or they may need to be newly filed. Your research cannot be conducted without these permits and it is vital that you work with your supervisor on this topic.

**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 2016 and no later than 1 January 2017. Funds must be spent by 30 June 2017.

### Timeline: milestones and schedule of delivery

<table>
<thead>
<tr>
<th>Project Objectives</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect field samples and begin sorting</td>
<td></td>
</tr>
<tr>
<td>Order field supplies &amp; clean sample vials</td>
<td>A-J</td>
</tr>
<tr>
<td>Collect water and invertebrate samples</td>
<td></td>
</tr>
<tr>
<td>Sieve sediment samples and size sort organisms</td>
<td></td>
</tr>
<tr>
<td>Identify organisms &amp; work up data</td>
<td></td>
</tr>
<tr>
<td>Identify major species in each size sample &amp; location</td>
<td>A-J</td>
</tr>
<tr>
<td>Select samples for lipid analyses</td>
<td></td>
</tr>
<tr>
<td>Laboratory analyses and writing up results</td>
<td>A-J</td>
</tr>
<tr>
<td>Process samples</td>
<td>A-J</td>
</tr>
<tr>
<td>Statistical analysis</td>
<td>A-J</td>
</tr>
<tr>
<td>Data interpretation &amp; writing</td>
<td></td>
</tr>
</tbody>
</table>

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

We strongly suggest you consult with your advisor and/or your department’s business office to make sure your budget requests are consistent with UAF fiscal policies.

Your project budget, presented in the form of a table, should be itemized into eligible categories that may include student salaries, equipment, travel, services, and supplies. A sample budget table is provided on page 9 of this announcement. 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 total budget requested on 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 SFOS 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.

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. **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). (For 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
   - 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.

8. **Suggested reviewers** Suggestions of qualified, impartial reviewers are welcome and should be included in the **cover email message** when you submit your proposal.
Proposal Submission Instructions and Deadline
(A suggested checklist for the 2016 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 a **12 pt or larger standard text font**, single-spaced, 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 letter of support, should be submitted at the same time as the rest of the proposal if possible. 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 to both* bahameister@alaska.edu and macastellini@alaska.edu *by 5 p.m. Alaska Standard Time on Friday, February 5, 2016.*

- We strongly urge that you ask someone not familiar with your research to carefully read and edit/comment on 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 2016; feedback will be returned in
May 2016.

Questions?

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

Budget items and dollar amounts shown here are for illustration only. Use footnotes to explain sources of “other” support. If you are unsure what category a proposed expense should be in, check with your advisor or business office.

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

*(sources: a = NSF grant of Dr. John Doe; b = departmental travel award to PI)*
Suggested Checklist for 2016 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 text font no smaller than 12 point.

☐ 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 2016 or later than 1 January 2017.

☐ 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)

☐ 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.