

**Tomas Gonzalez-Torres, Director**  
Iowa State University  
Department of Aerospace Engineering  
1234 Howe Hall, 537 Bissell Road  
Ames, Iowa 50011-1096



**ISGC Office: 515-294-3106**

E-mail: [isgc@iastate.edu](mailto:isgc@iastate.edu)

[www.iaspacegrant.org](http://www.iaspacegrant.org)

[www.facebook.com/NASAIowaSpaceGrant/](https://www.facebook.com/NASAIowaSpaceGrant/)

[www.twitter.com/IowaSpaceGrant](https://www.twitter.com/IowaSpaceGrant)

**ISGC Curriculum Development Program - Request for Proposals – Draft**  
**Released: May 12, 2020; Deadline: July 13, 2020**

**Overview:** The Iowa Space Grant Consortium (ISGC) requests proposals for the curriculum development program which will support the development of Science, Technology, Engineering, and Mathematics (STEM) related curricula aligned with [NASA Mission Directorates](#), with a focus on improving student skills. To support mission directorate alignment with emerging curriculum, the ISGC plans to award four projects focused on activities aligning within any of the four NASA Mission Directorates: Aeronautics Research ([ARMD](#)), Human Exploration Operations ([HEO](#)), Science ([SMD](#)), and Space Technology ([STMD](#)).

To be considered for this funding, proposals should utilize STEM related curricula focused on preparing the future STEM workforce and/or STEM preservice educators by including (but not limited to) augmenting hands-on instruction, using online and virtual NASA content experiences, using publicly available NASA data, and accelerating the use of digital learning tools.

Priority will be given to proposals which:

1. are developing curricula supporting transdisciplinary learning and are attempting to develop STEM ecosystems fostering partnerships between educators and industry;
2. collaborate with other ISGC affiliates;
3. recruit females, members of underrepresented minorities, veterans, and persons with disabilities.

Projects will be selected through a competitive process using selection criteria put forth in this RFP. These criteria will: show alignment with MD priorities, demonstrate capacity of key personnel, indicate acceptable level of likelihood to succeed, be sustained in the future, and involve students in the development of the curriculum. The detailed ISGC strategic, NASA strategic plan and mission directorates links can be found on ISGC web page at <https://www.iaspacegrant.org/nasa-resources/>.

**Eligibility, Amount of Award, and Duration:** All faculty of ISGC core institutions and academic affiliates are eligible to apply: Drake, ISU, Iowa, UNI, Des Moines Area Community College, and Loras College.

Submission is limited to one proposal per investigator. Four awards may be funded at \$10,000 per course for a period of performance beginning no sooner than July 20 and ending June 21, 2021. A progress report will be required in February 2021. A final report that includes an

evaluation of the project's effectiveness relative to the proposed objectives and other standard ISGC and NASA requirements will be required 30 days after the performance period closes or by July 21, 2021. An ISGC reporting template will be provided to awardees. Prospective applicants are encouraged to discuss their ideas including the targeted mission directorate with Jay Staker, [jstaker@iastate.edu](mailto:jstaker@iastate.edu), (ISGC associate director) to see if their ideas fall within the scope of this opportunity. All awards are dependent upon NASA funding availability.

### **Proposal Content**

- Project Description (three-page maximum, one-inch margins, 12 pt. font) that should include:
  1. background
  2. goals and objectives of the project
  3. support for mission directorate alignment
  4. evaluation plan
  5. timetable
  6. long term benefits
  7. key personnel
- Budget and justification
- Matching fund commitment letter from authorized institutional representative (typically an office of sponsored programs or grants office {except at ISU – use departmental approval process})
- Course approval from head/chair of the department or dean of the college
- Resumes of faculty or staff (one-page maximum per person)

**Budget:** Funds may be used to purchase supplies, support faculty or staff release time, support undergraduate students, or domestic travel related to the course. Funds may not be used to support tuition. The proposal budget justification should describe how requested funds support the project goals. All supported individuals (faculty, staff, and students) must be U.S. citizens. Non-U.S. citizens may participate but cannot receive direct compensation from the award or cost-share funding. Equipment purchases and foreign travel are not permitted. Proposing institutions are required to provide 125% match (1:1.25) using non-federal funds. Cost-share may be cash or in-kind contributions. No indirect costs will be paid on NASA funds, however waived indirect costs may be counted toward the match requirement. Budget and justification should explain, in itemized detail, the ISGC amount requested and matching dollars using the ISGC budget template, see below.

**Criteria for Evaluation:** A scientifically literate panel of individuals who may not necessarily be experts in the proposed area will review proposals. The ISGC director will make the final decision on proposal funding. The following areas will be considered in the evaluation of the proposal:

Criteria	Topics	%
Educational Merit	Scientific, technical, and educational merit of the proposed project. The degree to which this proposal is relevant to the science, technology, engineering and mathematics (STEM) curriculum.	30%
NASA Relevance	The degree to which this proposal is relevant to NASA's Mission Directorates.	30%
Management	Competency of the proposers to carry out the plan and achieve the stated goals. Potential of the project to increase undergraduate retention and achievement, particularly for women and underrepresented groups. Includes students in course development.	10%
Evaluation	Plan for evaluation of the course developed or re-designed	10%
Budget	Adequacy and appropriateness of the budget to carry out the project, including institutional contributions or other matching funds.	20%
	<b>Total</b>	<b>100%</b>

**Proposal Submission Procedure:** Submit proposals in Microsoft Word format to the ISGC office via this link: [Curriculum Dev Submission](#) by **July 13, 2020**. The budget should also be submitted with the ISGC Excel template shown below, also available for download at: <https://www.iaspacegrant.org/funding/faculty/>.

<b>ISGC Budget template for proposal submission</b>			
University ( <i>insert name</i> ) P.I. ( <i>insert name here</i> )		NASA	MATCH
ISGC Program Name: <i>Curriculum Dev, etc.</i> <i>Insert project/activity name here</i>		ISGC Funds Request	Non-Federal (Cost Share)
Salary+Fringe (Faculty)		\$0	\$0
Salary+Fringe (Graduate Students)		\$0	\$0
Wages+Fringe (Undergraduates)		\$0	\$0
Supplies and Services		\$0	\$0
Travel (Domestic)		\$0	\$0
Tuition		\$0	\$0
<b>TOTAL DIRECT COSTS</b>		<b>\$0</b>	<b>\$0</b>
<i>Modified Total Direct Costs (MTDC)</i>		<i>\$0</i>	<i>\$0</i>
<i>(NOTE: MTDC = Total Direct Costs - Tuition)</i>			
<b>INDIRECT COSTS</b>			<b>\$0</b>
NASA Indirect (see rates below)	53.0%		\$0
Match Indirect (see rates below)	53.0%		\$0
<b>TOTAL BUDGET</b>		<b>\$0</b>	<b>\$0</b>
<b>Notes:</b>			
Use university/college appropriate government approved indirect rate.			
(Drake = 36.7%, ISU = 53%, UI = 54.5%, UNI = 35.1% )			
(DMACC = 37% of salary and fringe only; Loras = 10%)			
Match requirement is 1:1.25			
Change/add expense type as appropriate, add rows as needed.			
Check all calculations for accuracy when adding rows.			
<b>Include budget justification below, or as a separate word document.</b>			
<b>Unallowable expenses include:</b>			
<input type="checkbox"/> Indirect charges (waived indirect costs may be counted towards match)			
<input type="checkbox"/> Equipment (defined as >\$5,000 per item)			
<input type="checkbox"/> Foreign travel			
<input type="checkbox"/> Facility renovations			
<input type="checkbox"/> Promotional materials (i.e. t-shirts, swag, etc.)			
<input type="checkbox"/> Non-U.S. citizen reimbursements (i.e. travel, salary, wages)			
<input type="checkbox"/> Non-U. S. citizens may participate, but cannot receive direct support.			