

# HAWAI'I SPACE GRANT CONSORTIUM





# NASA SPACE GRANT UNDERGRADUATE UNIVERSITY RESEARCH INTERNSHIP





#### **University of Guam (UOG)**

NASA Guam Space Grant, as a part of the University of Hawai'i Space Grant Consortium (HSGC), invites undergraduate students to apply for HSGC UOG Research Internships (URI) to pursue teaching internships or original research projects in the fields relevant to NASA's goals in aeronautics and space research.

Fields relevant to NASA's goals are mainly those in science, technology, engineering, and mathematics (STEM) or any disciplines focused on understanding the Earth, exploring the Solar System and the universe beyond. The purpose of this internship is to inspire students to pursue careers in STEM, to create more secure, efficient, and environmentally friendly air transportation systems; and to engage the public in shaping and sharing the experience of exploration and discovery.

#### PROGRAM DESCRIPTION

The HSGC UOG Research Internship may take the path of either a teaching internship or a research internship. Students must select only one (1) path. The internship includes:

- (1) a semester-long internship at \$4,000, with a possible extension into a second semester for a total of \$8,000 per year
- (2) a travel and supply budget of \$500 per semester (research internships only)

#### **RESPONSIBILITIES**

Undergraduate students have the option to pursue either **A)** a teaching internship or **B)** a research internship position. Check only one box.

#### TEACHING INTERNSHIP

Teaching interns will be expected to partner with a STEM UOG professor and will provide instructional support.

Successful candidates will be designated HSGC UOG Teaching Interns and will:

- Work 160 hours per semester (10 15 hours per semester week)
- Provide instructional support that includes, but is not limited to, preparing the classroom, preparing materials, grading assignments, labs, and exams; running laboratory exercises; providing technical support with online resources (e.g. Moodle, Zoom, WebAdvisor, etc.); offering extra help for students; and cleaning and securing the lab or classroom.
- Submit mid-semester, end of semester, and final progress reports describing work and accomplishments

# RESEARCH INTERNSHIP

Research interns will work on original research projects in the STEM fields relevant to NASA's goals in aeronautics, earth science, and space research. These areas include engineering, geology, biology, chemistry, physics, astronomy, oceanography, mathematics, computer science, medicine, education, and other fields.

HSGC UOG awards will be based on the goals of the proposed research training and/or the quality of proposed research/study, appropriateness of proposed research to NASA's goals, and feasibility of proposed research/study within the planned time frame, and the academic qualifications of the student.

Students must secure a mentor relevant to their field of study prior to submitting an application. If students need help finding a faculty mentor, please contact Dr. Romina King at roking@triton.uog.edu

(Continued on Page 2)





# **HAWAI'I SPACE GRANT CONSORTIUM**





# NASA SPACE GRANT UNDERGRADUATE UNIVERSITY RESEARCH INTERNSHIP





University of Guam (UOG)







#### RESEARCH INTERNSHIP (Continued)

Successful candidates will be designated HSGC UOG students and will:

- Work 20 hours/semester week
- Be provided training for and/or mentoring on their projects during the semester
- Receive additional funds for travel and/or supplies, as funds allow
- Must be enrolled in a STEM major and have a mentor.
- Submit mid-semester, end of semester and final progress reports describing their work and accomplishments.
- Give a project poster or oral presentation at the NASA Guam Symposium in the Spring and the HSGC Symposium in the Fall.

# **ELIGIBILITY**

Women, under-represented minorities (specifically native Hawaiians, other Pacific Islanders, Native Americans, African Americans, and Hispanics), and physically challenged students who have interest in space-related fields are particularly encouraged to apply. All applicants must be:

- 1. Citizens of the United States.
- 2. Full-time undergraduates (at least 12 credits per semester) at the University of Guam with a declared major in a STEM field.
- 3. Sponsored by a mentor who is willing to guide the student for the duration of the award.\*

  \*Mentors are faculty at the University of Guam but senior researchers or other qualified personnel at UH or elsewhere are eligible.

#### **APPLICATION DEADLINES**

Applications must be submitted via e-mail to Dr. Romina King @ roking@triton.uog.edu by the respective deadlines based on the semester you are applying for:

**Summer 2022:** June 17, 2022 **Fall 2022:** July 16, 2022

Winter 2022: November 16, 2022 Spring 2023: December 16, 2022

#### **QUESTIONS**

For additional information, please contact Dr. Romina King at roking@triton.uog.edu.

To learn more about the program, visit <a href="http://www.spacegrant.hawaii.edu">http://www.spacegrant.hawaii.edu</a> <a href="http://www.uog.edu/nasa-guam-spacegrant">http://www.uog.edu/nasa-guam-spacegrant</a>







# 3

# APPLICATION PROCEDURE

#### I. TO BE PREPARED BY THE APPLICANT AND SUBMITTED BY RESPECTIVE DEADLINE

- 1) Cover Page, fully completed (located on page 6 of this application). The application form is fillable.
- 2) Abstract (1 page)
- 3) Research/Study Proposal (for Research Interns) or Work Plan (for Teaching Interns) (min. 4 pages)
- 4) Request for Travel/Supplies Funds (1 page)
- 5) Student's Resume (1 page or less)
- 6) Official Transcripts & Letter of Recommendation (instructions on page 4)

# 1.1) Cover Page

The cover page is included with this packet on page 6. Please be sure to include all the information requested, including the **signatures of the applicant**, **proposed advisor/ mentor**, and **mentor**'s **department chair**.

### I.2) Abstract

A one-paragraph summary of the proposal should be prepared, highlighting the relevance of the proposed work to NASA's goals.

# I.3) Research/Study Proposal (for Research Interns) or Work Plan (for Teaching Interns)

The core of the application is a well-formulated proposal describing the proposed research work, its goals, and relation to previous research performed at the University of Guam, University of Hawai'i, and elsewhere. The proposal should be four to five typed, double-spaced pages in length, and shall identify and discuss the key elements of the proposed research, objectives, and methods to perform the research. It must include a time flow-chart showing when the student expects each component of the project to be carried out.

The proposed mentor should guide the student in the preparation of this proposal, and the role that the mentor will play in the subsequent studies should be identified. In cases where two or more students are applying to work on closely related topics, it is essential that each proposal contains separate tasks and goals. The proposal must include one or two paragraphs showing how the proposed study is relevant to the goals listed in the current NASA Strategic Plan (link available from the HSGC URI page at http://www.spacegrant.hawaii.edu/uri.html).

#### I.4) Request for Travel/Supplies Funds (For Research Proposals only)

Beyond the stipend, additional resources are available for research internship projects each semester. Students who wish to obtain these resources must complete a request form providing a brief justification for the use of such funds; \$500 per semester are available to purchase supplies and to support inter-island travel, and project related activities. These funds may also be used to supplement travel to scientific meetings in the continental United States to present the results of research internship projects.

### I.5) Student's Resume

The resume should reflect a short (1 page or less) summary of the applicant's career interests and accomplishments.

# **For UOG students**, all application materials should be e-mailed to:

Romina King, PhD Associate Professor of Geography

University of Guam HSS,  $2^{nd}$  Floor, Room 220C UOG Station Mangilao, GU 96923

roking@triton.uog.edu

The original copy of the application with signatures on the cover page and should be submitted to Dr. Romina Kina.





II.

In addition, the following items are required and should be sent directly to the Dr. Romina King via e-mail [not given to the student] to be received by the relevant deadline. An application is not complete until the following materials are received.

#### 2.1) Transcript

The student should arrange to have original transcripts of all college-level work sent to Dr. Romina King. \* Note: Unofficial transcripts are acceptable if they are from UOG.

#### 2.2) Letter of Recommendation

TO BE SENT INDEPENDENTLY

The proposed mentor or reference must provide a letter of recommendation commenting on the acceptability of the student for the program and the nature of any past experience with the student. It should also contain a clear statement of the advisor's willingness to supervise the student.

#### III. SUBMISSION

# 3.1) Initial Application

The original application material should be submitted by appropriate deadlines to Dr. Romina King. Selected applicants will be notified by the HSGC URI Selection Committee.

#### 3.2) Extension

Requests for extensions of a research internship project for a second semester should be submitted to the HSGC office. \*Note: Unofficial transcripts may be requested if the student's academic grades are affected by the program.

The Extension Report form must be completed and signed. The form should be attached to the mandatory end of semester progress report (three to four pages). The progress report should include the research and training scope for the extension and a time flow-chart showing when the student expects each component of the extended project to be carried out.

Requests for a third semester of support for a research internship can be considered if the proposed research project is distinctly different from that previously funded. Research interns applying for a third semester of funding should submit a final written report at the end of their second semester with a detailed summary of the results and conclusions from the first two semesters' work. In addition they must complete a full application form for a new research internship project (see I.3) to be completed during the third semester. Support for more than three research internship semesters is not available.

#### 3.3) Inquiries

Questions concerning the preparation & submission of applications and the administration of the HSGC URI should be addressed to Dr. Romina King at (671) 735-2880. We advise that students and mentors contact Dr. King prior to the submission of the proposal in order to ascertain the appropriateness of the intended project.

#### IV. RESPONSIBILITIES OF THE STUDENT

Students are required to briefly summarize their progress in a mid-semester report (to be signed by their mentor) to document progress towards research goals and the schedule outlined in the student's proposal.

Research intern students must attend the NASA Guam Symposium and the HSGC URI Symposium, which are held towards the end of both the Spring and Fall semesters respectively and must give an oral presentation on their project. Alternatively, the HSGC URI Symposium presentation can be delivered via video conference to an audience of selection committee members.





5

At the end of the semester, research interns on their second semester of funding or completing their project should submit a *final report* describing their accomplishments. This report must be six to eight pages in length and include results of the student's research and note, if applicable, presentations made, papers published, or relevant activities attended. An electronic copy of the final report should be sent to Dr. Romina King (roking@triton.uog.edu) as a .PDF. The quality of the final report must be adequate to be included in the Research Internship Final Report volume. Students who are funded to work simultaneously on closely related topics must give separate oral presentations and submit separate progress and final reports.

In addition, students are encouraged to fill out a simple online form that tracks the student's progress after graduation and a questionnaire on the Research Internship experience. Progress of HSGC URI students after graduation is included in our annual report to NASA. Responses to the questionnaire assist in improving the HSGC URI.













# University of Guam - Hawai'i Space Grant Consortium NASA Space Grant University Research Internship Application Cover Page

For U.S. Citizens only

NASA		Λn	plicant Information	_	_		
Student		Αþ	pheant information				
Full Name:							
	Last		First		M.I.		
DOB:			Age:		Gende	r: 🗆	
505.	Month/Day/Year				Genac	Male	Female
Mailing	. ,						
Address:							
	Street Address / PO Bo.	eet Address / PO Box			Apartment/Unit #		
Permanent	City			State	ZIP C	ode	
Address:							
710.01.000	If different from above	(mailing address), or residency	is not in Guam				
Phone:			Email:				
Cuada. 🗆 s			What semester will you	Constant	□ C □ E	-II	
Grade: ☐ Fre	eshman   Sophomore	☐ Junior ☐ Senior	conduct your internship?	☐ Spring	□ Summer □ F	ali 🗆 Wint	er
Program/		Minor:	GPA:		Graduation		
Major:		<del></del>	(Cumulative)		Date:	lonth/Year	
		Proposal (For thos	e seeking Research Internshi	ip)	10	iontily real	
Title of Prop	nosed	. ,	Ü	.,	Proposed		
Study:					Semester(s):		
				,	_	erm/Year	
_							
Proposed Me	-				Dept./Office:		
	Print Name				L	ept./Bldg., Ro	om No.
Mentor's Con	ntact:						
	Phone Ext.		Email Address				
Mentor's Dept. Chair:							
Dept. Chair.	Print Name		Phone Ext.			Bldg., Roo	m No.
	, , , , , , , , , , , , , , , , , , ,	Certif	ication and Signatures			Diagny rive	
□ I am a c	itizen of the United Stat	es and I will be a full-time stud	lent taking a total of at least 12 cre	dit hours at th	e University of Gua	m during the	period
	d in the attached propos					_	
			de HSGC information about my stu- track the long range effectiveness			tions on requ	est beyond
		<b>,</b>			<b>,</b>		
Student's Sign	ature:				Date:		
Mentor's Sign	ature:				•		
					Date:		
Dept. Chair's S	Signature:				Date:		
HSGC URI will	I be selected on mer	rit without regard to race,	color, religion, national origin,	sex, or age	e. However, to de	etermine ar	nd report
			nts of the population are reach	ed by this ar	nnouncement, HS	GC would a	ppreciate
your input to f	ill in the appropriate b	olocks and information. Plea	se mark all that apply below.				
		Stı	udent Demographics				
Ethnicities:			☐ Native American ☐ Native Haw	aiian		☐ Hispanic ☐	
Physically	☐ Pacific Island		$_{-}$ $\square$ I do not wish to state dic Impairment $\square$ Visual Impairm	ent 🗆 None	☐ I do not	wish to state	<b>.</b>
Challenged:		airment $\square$ Other:	$\_$ $\Box$ I do not wish to provide info		☐ Yes ☐ N	lo	
How did you	hear about this oppo						
Have you par	ticipated in any Spac	ce Grant programs before	? If so, please list your involve	ment(s):			
			s funding from other sources?		□ Yes □	No	

Last Updated: April 27, 2022

<sup>\*</sup>Please complete and attach this cover sheet to the proposal with other required application material, and three copies of the proposal, as described in the instructions.