









Preparing a Globally Competent STEM Workforce through Study Abroad

September 14, 2023

#LaunchIDEASabroad

USA Study Abroad





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USA Study Abroad, Office of Global
Educational Programs
Bureau of Educational and Cultural
Affairs, U.S. Department of State



Bureau of Educational and Cultural Affairs, U.S. Department of State



Mission:

The Bureau of Educational and Cultural Affairs

(ECA)'s mission is to increase mutual understanding between the people of the United States and the people of other countries by means of educational and cultural exchange that assist in the development of peaceful relations. ECA is committed to fairness, equity and inclusion, and its programs strive to reflect the diversity of the United States and global society.



55,000 participants engage in exchange programs funded by ECA annually



15,000 American participants travel abroad on exchanges each year



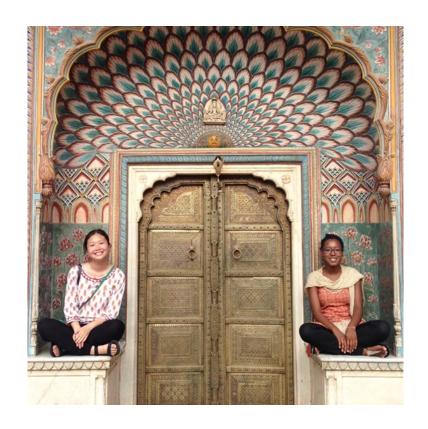
101 U.S. public and private non-profit institutions funded

www.exchanges.state.gov

#ExchangeOurWorld www.eca.state.gov









- Bipartisan CHIPS and Science Act of 2022
- Gilman Scholar STEM Supplemental Award
 - For Gilman Scholars conducting STEM-related research abroad
 - Up to \$1,000 each
 - Gilman Program and Gilman-McCain applications deadline October 5, 2023
 - Email <u>Gilmanadvisors@iie.org</u> with any questions



IDEAS Program

A program of the U.S. Department of State Bureau of Educational and Cultural Affairs, USA Study Abroad branch

Seeking to expand higher education institutions' capacity to grow and diversify study abroad programs for U.S. students

- Increase number of all students studying abroad, particularly those from historically underrepresented groups
- Increase the number of U.S. higher education institutions offering study abroad programs
- Expand study abroad to new overseas destinations, particularly those that are less common

Grant Competition

- Approximately 30 grants of up to \$35,000
- Approximately one consortium grant of up to \$50,000

Capacity Building Initiatives

Virtual and in-person, open to everyone





179

grants awarded

47

U.S. states + D.C. and P.R. 10,000

estimated students impacted

173

recipient colleges and universities

\$5.4

million awarded

IDEAS Grant Competition

STEM and Study Abroad

IDEAS
INCREASE & DIVERSIFY
EDUCATION ABROAD
FOR U.S. STUDENTS

OPEN DOORS U.S. STUDY ABROAD DATA

SELECTED FIELDS OF STUDY FOR U.S. STUDY ABROAD, 2020/21



Business and management

17%



Social sciences

17%



Physical and life sciences

10%



Engineering

9%

Source: The *Open Doors Report on International Educational Exchange* is a comprehensive information resource on international students and scholars at higher education institutions in the United States and U.S. students studying abroad. It is sponsored by the U.S. Department of State with funding provided by the U.S. Government and is published by IIE. For more information, visit www.opendoorsdata.org.



opandoore

STEM Majors Abroad

(% of all U.S. Students Abroad)

2000/01: 16.6%

2019/20: 24.5%

50%

https://opendoorsdata.org/data/us-study-abroad/fields-of-study/

Speakers





Lauren Griggs
Director, Multicultural
Engineering Program;
Director, Clark Scholars Program;
Assistant Teaching Professor
Pennsylvania State University



Gloria Kim
Assistant Professor,
Department of Engineering
Education
University of Florida



Zach Petrea
Professor of English;
Study Abroad Coordinator
Heartland Community College



Kanton Reynolds
Director of Undergraduate
Programs, Department of
Industrial and Systems
Engineering
North Carolina State University



A. James Clark Scholars Program



- 470+ Scholars
- 11 University Partners
- 46%
 Underrepresented
- 50% Women
- 51% Federal Pell Grant Eligible





*Penn State Clark Scholars Program



PennState

College of Engineering

Cohort-Based Global Experience: Peru





CLARK SCHOLARS

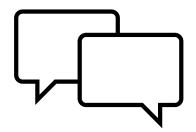
"Waterfall" Chat



Finish this phrase:

"If only I had _____," more STEM students at my institution would study abroad."

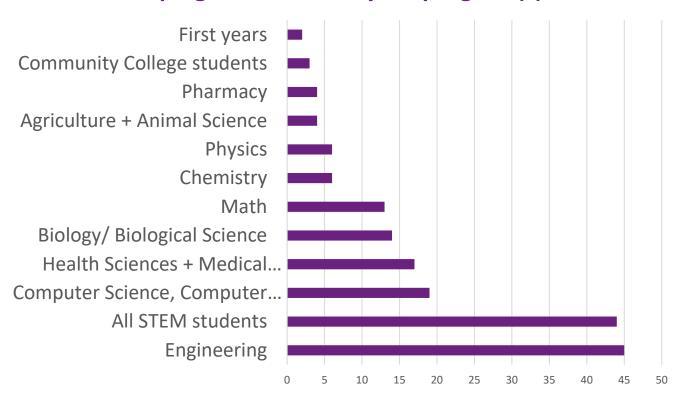
Type your answer into the chat box, but don't press enter yet.







What demographic of STEM students are you hoping to reach with your program(s)?





Creative program models



Faculty/administrative buy-in



Curricular integration



Funding





University of Florida

- Gainesville, FL
- ~35,000 undergraduates
- 70% Financial Aid
- 33% students of color



B.C. (Before COVID)







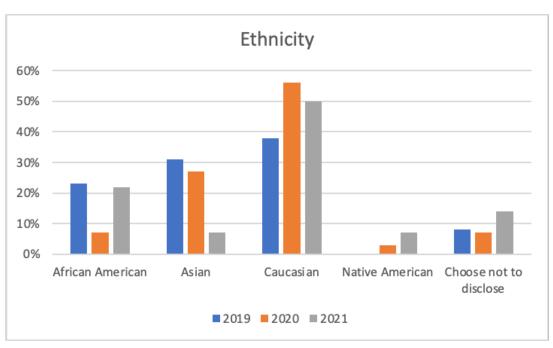
- National Science
 Foundation (NSF)
 International Research
 Experiences for
 Students (IRES) grantee
- Consultant for the shared curriculum development for future semiconductors

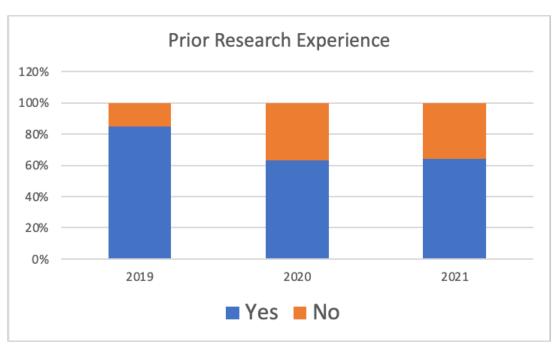


Why IDEAS? Diversifying STEM Study Abroad @ UF



NSF IRES IRiKA* Program Applicants





^{*} Interdisciplinary Research in Korea on Applied smart systems (IRiKA) for Undergraduate Students



IDEAS Grant Impact



- Summer 2024: GatorEngineering @SF Faculty-led Program
 - Design-thinking
 - Science communication
 - Cultural immersion
- Fall 2024: Exchange Student Program
 - 5 POSTECH students : 5 UF students
- Spring 2025: Hybrid Exchange Program
 - POSTECH students @UF in February
 - Virtual exchange over Spring
 - UF students @POSTECH in May













Heartland Community College

- Central Illinois
- ~5,000 students
- 72% Financial Aid
- 30% students of color
- 20% 1st Generation
- 43 languages







Study Abroad Coordinator

- Student Engagement under <u>International Programs Office</u> (IPO)
- 6 programs provided by membership in <u>Illinois Consortium for International Programs</u> and <u>Studies</u> (ICISP)

Committee for Global Education (2018)

- Co-chaired with IPO and academic representatives
- Study Abroad Scholarship (2019)
- Global Studies Curriculum Sequence Designation (2019)
- Faculty Academy (2021)
- Virtual Physical Therapy Assistance Service-Learning in Tanzania (2022)
- IDEAS Grant (2022)



IDEAS Grant: Short-term, Faculty-led Programs



- Agriculture to South Africa
 - Coincides with new agriculture building and degree programs
 - Leverage existing virtual provider
- Electric Vehicle (EV) to Finland
 - Coincides with new EV lab and degree programs
 - Rivian is a local EV manufacturer
 - Leverage existing relationship
- Health Sciences to Tanzania
 - High faculty interest
 - Leverage existing virtual provider









NC State College of Engineering

- Raleigh, NC
- ~11,000 students
- 30% from rural NC counties
- 57% STEM majors

NC STATE

Engineering





- Facilitated through <u>Women and Minority</u>
 <u>Engineering Program</u>
- Rwanda committed to goal of Middle-Income Country Status by 2035
- Shortage of STEM professionals in country
- Benefit to all stakeholders











- The Field Experiences in Engineering Education: Rwanda Program
 - Workshops and coaching
 - Thematic Education (skill enhancement)
 - Research opportunities





IDEAS Grant Activities



Jennie Mangala



Coordinating installation of solar panels at primary school in Rwanda

Catherine Reckard



Developed virtual reality environment focused on teaching engineering utilized by high school students in Rwanda

Meriem Laroussi



Received Fulbright
Student Program
Award to Rwanda
after completing
Alternative Service
Break Program
(Team Lead)

Amy Isvik

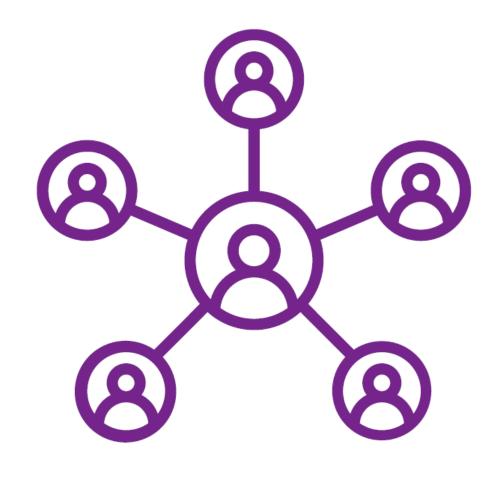


Received Fulbright
Student Program
Award to Rwanda
after completing NC
State Abroad

State Abroad Program











- Think BIG and...
 - start small
 - start local
 - start with motivation
- Student outreach and support
 - Go where the students are
 - Information to students as early as possible
 - Elevate previous student experience
 - Give students agency in designing part of the experience
- Make it a win-win for your institution and your partner







- Diversity Abroad Global Inclusion 2023 Chicago, IL
 - October 31 November 3, 2023
 - Session: IDEAS for Indigenous Inclusion in Education Abroad



- NAFSA Region VI Conference 2023 Lexington, KY
 - November 5-7, 2023
 - Find us in the exhibitor hall!



- NAFSA Region VIII Conference 2023 Roanoke, VA
 - November 7-10, 2023
 - Grantee-led session: Enhancing and Advancing Internationalization Efforts via IDEAS Grant November 9



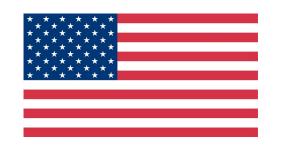




Join us for our next free webinar on October 4th, 2:00 – 3:00PM EST

Campus Engagement in Refugee Resettlement: Perspectives from the SHERR Program

Register Now!











Stay in touch with the IDEAS Program!	
	IDEACO

Email IDEAS@worldlearning.org

Website StudyAbroadCapacityBuilding.org

LinkedIn https://www.linkedin.com/company /ideas-program