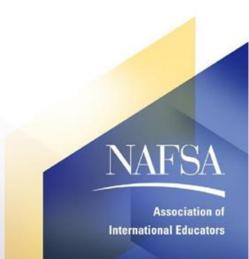


## Presenters

Joe Hoff, Ph. D., International/Intercultural Education Professional

Jessie Guinn, Jr., Ph.D., Assistant Academic Dean of Science, Technology, Engineering, & Mathematics Arcadia University | The College of Global Studies

Nikki Letawsky Shultz, Assistant Dean College of Biological Sciences, University of Minnesota



## Introduction

- Mindsets, Processes and Mission
- The Difference between Global, International and Intercultural



# Returned Study Abroad and International Students

## Guiding questions:

- a) What opportunities exist to integrate returning students and international student experiences into our classes?
- b) What resources are necessary to do so?
- c) How will I know I am successful?



## Returning Students

- Needs of the returning students (study abroad, internships, research abroad)
- Working within an already existing syllabus
- Adding on to an existing syllabus (CLAC)
- Research or other symposiums sponsored by a School/College
- Theses or other capstone type work



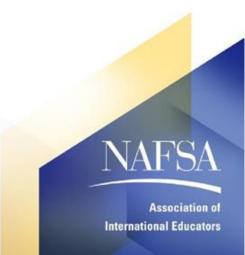
# Working with International Students

- •We are all international!
- Establish a relationship of trust
- Need for intercultural learning by all
- Encourage non-English sources (translated) for projects
- Design mixed group projects



## **Guiding Questions:**

- How can I garner more faculty buy-in on my campus to send STEM students abroad?
- How can an a research experience abroad be incorporated into a STEM student's time abroad?
- Of the research models available abroad, which of these works best for students at my institution?



• How can I garner more faculty buy-in on my campus to send STEM students abroad?



## The College's Hallmarks of Teaching & Learning

The College of Global Studies endeavors to prepare students for lives of informed contribution in a rapidly changing global society. We enact this core value as we design and cultivate opportunities for maximized student learning – opportunities to learn to think critically, observe skillfully, reflect thoughtfully, and participate meaningfully – guided by the following four hallmarks of teaching and learning:

1.

We curate curricular options that amplify and extend a student's degree path.

2.

We construct student-learning experiences that are grounded in host communities and actively combine local and global engagement.

3.

We frame learner-centered approaches to student development that seek to foster student agency and efficacy.

4.

We attend to individual student goals through engaged teaching, advising, and mentoring, connecting students with relevant and personally valuable opportunities.



From engineering in Rome or Istanbul to environmental studies in New Zealand or science in Cape Town... Arcadia University offers a variety of rigorous study abroad programs for students in STEM fields (Science, Technology, Engineering and Mathematics).

66 The academic rigor and co-curricular learning involved in Arcadia's STEM programs ensure students receive strong preparation for graduate programs and careers in the field. Such opportunities will give students extraordinary challenges and rewards."

- Dr. Jessie Guinn, Assistant Academic Dean of STEM at The College of Global Studies, Arcadia University.



#### ARCADIA'S APPROACH

#### Strong Curriculum

Arcadia uses national and international standards from various accreditation bodies (such as ABET and the signatory bodies of the Washington Accord for Engineers, which has a mutual recognition agreement with ABET) as our benchmark for selecting host institutions that are suitable for STEM majors. We also focus on coursework in which English is the language of instruction.

#### Courses to fit into graduation timetables

We work with our US-based partner institutions to identify prescribed courses and their sequencing for each STEM major and match those requirements with offerings from our overseas partners. In this way, our course offerings feature components that are aligned with students' curricular needs during their time abroad, so that they remain on track for timely graduation.

#### Hands-on skills development

STEM students need to develop increasingly sophisticated skills sets. We seek opportunities for students to participate in lab and other applied settings, where they can develop those practical skills.

#### Resume-building experiences

Earning credit abroad for such discipline focused study gives students an immediate advantage in the eyes of employers and graduate schools. Arcadia also seeks to enhance this learning beyond the classroom through experiential education and co-curricular learning abroad. This is designed to help students become immersed in the local culture and way of life of the host country. Students may formalize that learning in a Co-curricular Learning Certificate, a structured project connecting their studies with their experiences in-country.





#### FOR MORE INFORMATION PLEASE CONTACT:

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Of the research models available abroad, which of these works best for students at my institution?

# **Undergraduate Laboratory Research**

- Summer
  - London, Glasgow, Granada, Dublin
- Semester
  - Royal Veterinary College, Dublin, Granada Environmental Sciences Program
- Combination







 $C \cdot E \cdot A \cdot M \cdot$ 



## 48 project areas from Animal Welfare to Virology

Below is a sample of the variety of projects that we have on offer

#### **Biology Projects**

- Amino acid nutrition of aphid embryos - Dublin
- Caenorhabditis Elegans as a Model for Neuroscience Studies - Glasgow
- Inter-species effects on plant water uptake and transpiration - Dublin
- Thermophiles in the Urban Environment - Glasgow



#### Environmental Sciences Projects

- Impact of road traffic emissions on urban air quality - Granada
- The role of the planetary boundary layer height on air quality at an urban site - Granada



Agriculture & Soil Science projects also available

#### Biomedical Sciences Projects

- Effect of insulin resistance on ox-LDL uptake and subsequent release of microvesicles by human macrophages, in vitro - London
- Do osteocytes recruit stem cells to form bone? - London
- Mitochondrial Targeting of Sporadic Parkinsonism - London



## Physics & Astronomy Projects

- Investigating the Astronomical Signatures of Artificial Structures in Extra-solar Planetary Systems - Glasgow
- The "Beta Pen": A Hand-held Device for Detecting Beta Radiation - Glasgow



#### Chemistry Projects

- Design of 3D Printer Systems for Chemical Synthesis - Glasgow
- Pd-catalyzed Heterocycle Synthesis by Alkene Difunctionalization - Glasgow
- Study of Catalytic Reactions of Butanal on a Base Catalyst - Glasgow



#### Mathematics Projects

- · Automorphic a-series Dublin
- Combatting Cancer with a Statistics Toolbox - Glasgow
- Vertical distribution of aerosol particles over Southeast Iberian Peninsula in the frame of the EARLINET network - Granada





# High Impact Practices Guiding Questions

(service learning, internships, capstone course/projects, research, first-year seminars, writing intensive courses)

- •Which high impact practices do we currently have integrated with our study abroad offerings?
- What high impact practices would work for my institution to connect with learning abroad?
- •Who might be champions or collaborators at my institution with whom I can work?





# High impact practices (AAC&U):

- service learning
- internships
- common intellectual experiences
- capstone course/projects
- research
- first-year seminars
- learning communities
- collaborative assignments/projects
- writing intensive courses



# Short exercise: Choose a question relevant to your context and discuss with a colleague:

- •What opportunities exist to integrate returning students and international student experiences into our classes?
- •What resources are necessary to do so?
- •How will I know I am successful?
- •How can I garner more faculty buy-in on my campus to send STEM students abroad?
- •How can an a research experience abroad be incorporated into a STEM student's time abroad?
- •Of the research models available abroad, which of these works best for students at my institution?
- •Which high impact practices do we currently have integrated with our study abroad offerings?
- •What high impact practices would work for my institution to connect with learning abroad?
- •Who might be champions or collaborators at my institution with whom I can work?

