



# NYU Science Diplomacy Course for STEM Graduate Students & Postdocs

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## Abstract

The New York University (NYU) course on science diplomacy for graduate students and postdocs is a potential model for institution-based early career training in this field. Now in its second year, the course introduces the role of STEM professionals in international diplomatic affairs. Over an eight week period, presentations given by science diplomacy experts provide an overview of contemporary science diplomacy topics with an emphasis on three primary themes: science policy for diplomacy, science diplomacy, and science for global development. Speaker case studies raise awareness of organizations involved in science diplomacy efforts, skills and qualifications useful for facing challenges in the field, and avenues for involvement of early career STEM professionals. Students gain an understanding of the skills (analytical, ethical) to apply science in a diplomatic/international framework through a group-based case study and development of a policy memo. Course participants include both domestic and international early career professionals and students from a broad range of STEM fields, including basic sciences, medical sciences, and engineering. A certificate is provided to course participants upon completion. The course is organized by the NYU Office of Postdoctoral Affairs with input welcomed from current graduate students and postdocs. Support for the course provided by the NYU Science Training Enhancement Program (STEP), and a Broadening Experiences in Scientific Training (BEST) grant from the NIH.

## Methods

### Summary

#### Format:

- 8-week course
- 1.5 hours/week
- seminar series

#### Cost/Commitment:

- no student cost
- no course credit

#### Student Work:

- group project (policy memo)
- Recommended Readings

#### Student Outcomes:

- certificate

#### Logistic Requirements:

- course space
- volunteer speakers

#### Organization:

- students/postdoc course design
- NYU Office of Postdoctoral Affairs support for design and logistics (room reservations, speaker accommodations)

### Course Syllabus

**Syllabus for Science Diplomacy: The Role of Science in International Relations and Global Development**

Course Director: Christine Ponder, PhD, Director, NYU Office of Postdoctoral Affairs  
Organizers: Indrani Chatterjee PhD and Ursula Koniges

Thursday 6 pm - 7:30 pm  
February 11<sup>th</sup> to March 31<sup>st</sup>  
NYU Silver Building 31 Washington Place, Room 1003

This course will introduce the role of scientists, science, and technology in international diplomatic affairs. A series of science diplomacy experts will provide a framework of science diplomacy, its various sectors, participating agencies, challenges, its future and potential for action. Students will gain an understanding of the skills (analytical, ethical) to apply science in a diplomatic/international framework through a group-based case study. The course will emphasize three primary themes: Science Policy for Diplomacy, Science Diplomacy, and Science for Global Development.

**Assignment:** With a small group (2-4), identify a diplomacy issue in which science plays a significant role and write a memo that identifies a need or problem and suggests how scientists could address the issue. The memo should be no more than 2 pages. Due 3/31/16

2/11/16  
Peter Navarro, Ph.D., Executive Director, Health Right International, Director of Global Health Strategy, Associate Research Professor, Global Institute of Public Health, New York University  
Title: Global Health & Foreign Policy: Overview & Recent Developments  
Theme: Science Policy for Diplomacy  
Suggested Reading:  
More Information:  
<http://wagner.nyu.edu/havario>  
<https://press.com/bmuvhpoktjcr/healthright/>  
Twitter: @PeterNavarro

2/18/16  
Vaughan Yurekian, Ph.D., Science and Technology Adviser to the Secretary of State, Former Chief International Officer, Center for Science Diplomacy, AAAS, Washington, D.C.  
Title: Science Statecraft: The Role of Science Advice at the State Department  
Theme: Science Diplomacy  
Suggested Reading: <http://www.sciencediplomacy.org/>  
More Information:  
<http://www.aaas.org/program/center-science-diplomacy>  
<http://www.sciencediplomacy.org/authors/vaughan-c-turekian>  
Twitter: @scidip

### Group Policy Memo Assignment

**NYU Science Diplomacy Course**  
*The Role of Science in International Relations & Global Development*

Science Policy Memo Assignment

**Overview**  
The purpose of this assignment is to provide an opportunity to explore a topic relevant to science diplomacy, think critically about a problem related to that topic, and collaborate with your peers to suggest action. Topics can include issues addressed in the 8-week course, or other relevant issues upon which you and your teammates agree.

**General Format:**  
We recommend the following components for your policy memo:

- Subject/Title
- Intended Audience
- Introduction and Summary
- Background
- Policy Options
- Recommendations

Outline a problem relevant to science diplomacy, and recommend clear, specific action to address the issue. For example, think of an area where the US and another nation could collaborate (e.g. cooperation on infectious disease between the US and Cuba), outline the benefits resulting from such agreements, suggest institutions, companies, NGOs to involve on both sides. Suggest how to overcome potential hurdles. Be sure to explain technical detail that would not be common knowledge for your audience. Offer specific, measurable action under the control of the person to whom you addressed the memo to deal with the problem you outlined. Avoid jargon and use plain language. You may want to cite specific sources for background information; the citation style is up to you.

**Requirements:**

- Group size: 2-4
- Document length: no more than 2 single-spaced pages

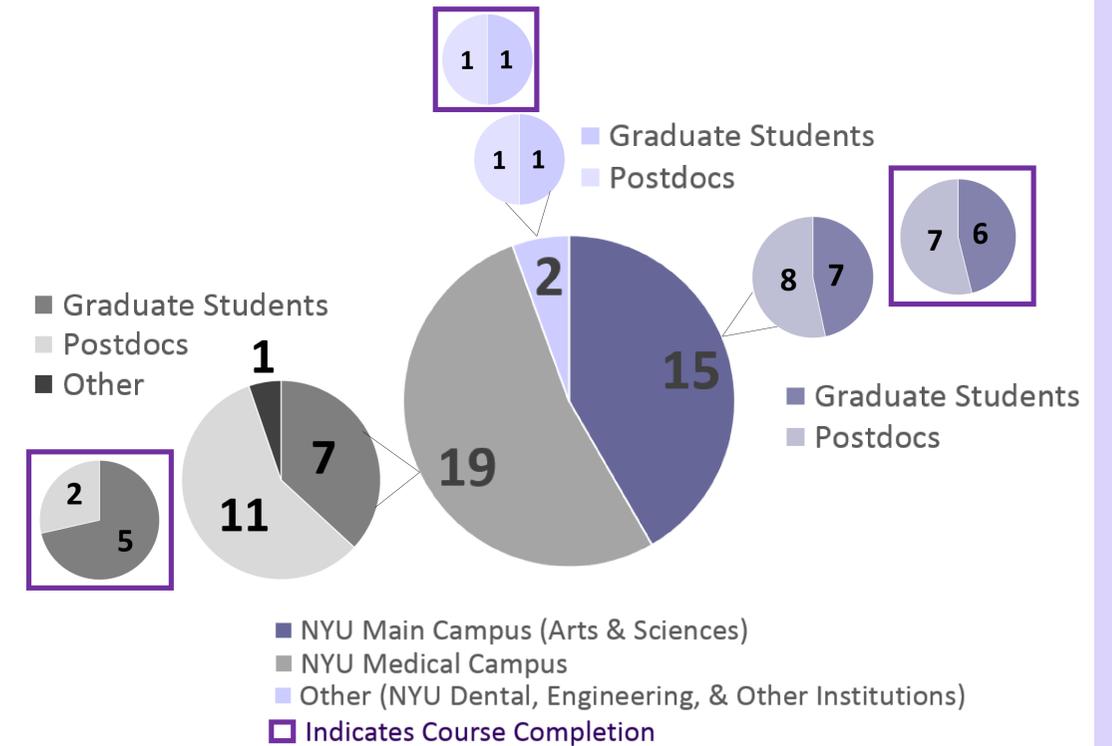
### Course Certification

Satisfactory course completion is determined by class attendance (two absences permitted), and submission of the assigned group project (policy memo, see above). Upon course completion, students earn certificates as shown at right. Certificates do not confer academic credit, they simply acknowledge course completion.



## Results & Discussion

### Course Participants – 2016 Class



The schematic above illustrates both course participation and completion across the NYU campuses. Participation from NYU Main Campus included researchers in the fields of chemistry, biology, neuroscience, and psychology, while the NYU Medical School included researchers from biochemistry, cardiology, neuroscience, psychiatry, microbiology, pathology, immunology, and cell biology, developmental genetics (self-reported).

## Future Directions

### Washington D.C. Field Trip

A field trip to D.C. is being considered as a capstone for future courses.

### Student/Postdoc Club Connection

Following the 2016 course, a Science Diplomacy Club for postdocs and doctoral students is currently forming at NYU.

## Acknowledgements

The NYU Science Diplomacy Course was made possible by support from the NYU Office of Postdoctoral Affairs and the NYU Scientific Training Enhancement Program (NYU-STEP). This work was supported by an NIH BEST Grant (Broadening Experience in Scientific Training, Award Number 1DP7 OD018419-01) and by the generous time and expertise contributions by all volunteer course speakers. Grateful acknowledgements to Florence Chaverneff, a co-organizer during the inaugural year (2015), for her role the course's creation & design.

