Science Diplomacy

Course category: (IA) International Affairs
Instructor: **Christopher Mark**

This course will explore how geopolitics and international diplomacy have become" for good or ill" key factors in the development of twenty-first century science. Scientific endeavors in the modern era have created both competitive and cooperative relationships between nations. Examples will be drawn from the instructors' experience in science management and international negotiations. With each example, the underlying science will be explained and descriptions given of how diplomacy created new relationships among developed and emerging nations.

Week 1 - Course Introduction

- How is science done and how do scientists communicate (e.g., Reprint Requests; 2018 Disease X Countermeasures Conference)?
- What creates needs for diplomacy and diplomatic advances in the development of science, and what are the challenges that arise?
- Presentation of personal experiences of negotiating dynamics and professional interactions with colleagues internationally.
- Discussion of learned experiences of traveling, negotiating and working with colleagues around the globe.
- Presentation of course objectives and soliciting participants' expectations and objectives from the course.

Week 2 - The Space Program and Climate Science

The session will discuss the future of experiments in space. This will include understanding changes to the Earth's climate and how relations between major nations have changed since the start of manned space exploration, and since the 2016 Paris Climate Accord. There will also be an examination of treaties in place that govern what countries and non-governmental entities do in space, and what the current situation and outlook is.

Week 3 - AIDS Crisis and Bush 43's Emergency Plan for AIDS Relief (PEPFAR).

The session will cover the biology of retroviruses and the development of interventional treatments enabling HIV-infected patients to lead normal lives. The impact of PEPFAR on relations with Africa will be examined, along with the current issues for continuing the PEPFAR program.

Week 4 - COVID-19 and China" Collaboration and Conflict

This session will examine the discovery of the virus and challenges to sharing information internationally. In addition, the rise of Chinese biotechnology and new challenges and successes gained through America's Project Warp Speed will be discussed.

Week 5 - Artificial Intelligence Research

The final session will include a discussion on artificial intelligence (AI) development; defining the terms "generative AI", "machine learning" and "agentic AI" (including input from AI chatbots). AI could transform international diplomacy by accelerating crisis response and augmenting strategic decision-making. The question for consideration will be how AI may accentuate global power imbalances through advances made by tech-forward countries.