

## 12.757 Climate Change Science: Facts, Questions, Controversies and Communication (6 Credits)

Sarah Das (MG&G, [sdas@whoi.edu](mailto:sdas@whoi.edu)) and Fiamma Straneo (PO, [fstraneo@whoi.edu](mailto:fstraneo@whoi.edu)).

Thursdays February 5th to May 17th at WHOI

Climate Change is one of the greatest challenges facing today's earth scientists (including oceanographers) and one that we believe all earth scientists should be familiar with. This course is designed to provide you with a basic knowledge of the 'big questions' behind today's climate change science and with the tools to discourse about climate change with diverse groups. The course will cover several major themes: Greenhouse Gases, Carbon Cycle/Ocean Acidification, Cryosphere/Sea-level Rise, Hydrologic Cycle, Abrupt Climate Change and Extreme Events. Within each topic we will summarize the science, the attribution, the controversy and discuss solutions. Scientific experts within each of the topics will participate in the class discussion. Two guests, an IPCC author and a science journalist working on climate change, will join the course during two separate lectures. The course format will include weekly student presentations, weekly written assignments and a final presentation of climate change topics at a public venue (e.g. a museum). We will meet once a week for one and a half hours. As part of the course, we will also discuss non-refereed outlets such as climate science blogs and climate skeptic blogs, as well as climate-change discussions in a range of media (e.g. blog, podcast, videocast, presentation). Particular focus will be given on how to vary presentation styles as a function of the audience.

