



## Directed Research Topics

### CAS NS 333 (4 credits)

#### Course Catalog Description

Seminar exploring humanities and social sciences approaches to understanding and resolving contemporary climate-related issues. Development of research and writing skills through analyses of case studies and guided seminar exercises. Requires field data collection, research paper and presentation of results.

**Instructors:** Sea Education Association Maritime Studies Faculty; Visiting Scholars.

**Location:** SEA campus in Woods Hole, MA, on shore at field sites and port stops, and aboard SEA sailing school vessel at sea.

**Prerequisites:** Admission to SEA Semester. Sophomore standing or consent of instructor.

#### Course Philosophy and Approach:

This course focuses on the development of writing and research skills by examining climate change case studies in maritime contexts, producing literature reviews and collecting original data in port stops. Students will explore humanities-based studies of climate issues and identify key concepts and methods as they develop their own research projects. The course objectives are to explore the broad range of sociocultural, economic, and political effects of climate change, to interact with fellow climate change scholars, and to develop the skills needed to conduct research effectively. Potential case studies and research projects include urban and coastal resilience, social and environmental justice, clean energy, human displacement, public health, national security, poverty and conflict. The course places heavy emphasis on developing novel approaches to climate issues, formulating ocean-based perspectives with respect to these issues, and building cooperative strategies with fellow scholars across humanities and social science disciplines and in the natural sciences.

At our campus in Woods Hole students will find a class schedule that is familiar to them from their home campuses. Days are divided into lectures, discussions, and workshops. Aboard the ship there are two formats for class: a daily meeting at 1400 with all hands, and an in-watch class with the morning watch. (The watch rotation will bring each student to this class every third day.) On shore at field sites remote from Woods Hole and at port stops during the sea component there will be organized tours, workshops and lectures, and time to explore and follow up on research opportunities. The faculty and local experts will help students develop a plan to take best advantage of time in the field and in port. The course consists of 24 hours of faculty-supervised field trips, 24 hours of seminars, 24 hours of field data collection, 12 hours of case study workshops, 8 hours of research writing workshops, 4 hours of faculty-guided final project development, and 4 hours of presentations.

### Learning Objectives:

1. Gain practical experience with specific approaches, tools, and techniques used in conducting humanities and social science research.
2. Learn research methods from multiple sources including primary documents, secondary scholarly literature, and the internet, where assessing the value and veracity of web pages is an essential skill for the scholar.
3. Learn to communicate with scholars, institutions, and stakeholders working to develop solutions to climate change-related issues locally, regionally, and globally.

### Evaluation:

Preliminary Research Statement and Bibliography	10%
First Draft of Research Paper	20%
Case Study Summaries (two on shore, two at sea)	40%
Final Research Paper and Executive Summary (At Sea)	30%

### Assignments:

#### Preliminary Research Statement and Bibliography

Individual students will select a research topic with the guidance of the course instructor. They will test the theories and ideas learned from an extensive review of relevant literature against their own observations and interviews conducted during the sea component. The preliminary research statement consists of two to three sentences that explain the goals of the proposed research; the goals must be sufficiently narrow in scope to be addressed in a ten-page paper. The bibliography consists of five annotated entries and serves as an exploratory exercise to further the student's knowledge of the relevant literature. The preliminary research statement and bibliography are due in week three and are worth 10% of the total course grade.

#### First Draft of Research Paper

The primary goal of the assignment for students in *Directed Research Topics* is to develop skills in conducting literature reviews, learn methodologies for field data collection, and synthesize existing theories with original observations in a brief research paper. The first draft of the research paper will consist of a topic-specific literature review, a field plan for data collection during the second shore and sea components, and a summary of any data collected during the first shore component. The research draft (7-8 pages) is due at the end of week six and is worth 20% of the total course grade.

#### Case Study Summaries

During the semester there will be four case studies based on field trips. A case study identifies a specific problem related to the broader themes of the program and provides opportunities for field (onsite) analyses of stakeholders, policies, and other relevant factors. Students will work in teams to complete a case study summary worksheet provided by the instructor and will discuss results in class. Each of the four case study summaries is worth 10% of the total course grade.

### Final Research Paper and Executive Summary

Students in *Directed Research Topics* will produce a paper (10-12 pages) that summarizes the relevant literature of a chosen topic and contributes to knowledge of the topic through original field research. Summaries of observations and interviews conducted during the sea component will provide an addendum to the literature review portion of the paper submitted on shore. Students will summarize their research with a two-page Executive Summary and will provide a brief presentation of their findings to the class. The final research paper and summary are due in week 12 and are worth 20% and 10% of the total course grade, respectively.

### **Expectations and Requirements:**

- Punctual attendance is required at every class meeting.
- Active participation in class discussion is expected.
- Late assignment submissions are not accepted.
- The policy on academic accuracy, quoted below, will be strictly followed in this class.

The papers that you submit in this course are expected to be ***your original work***. You must take care to distinguish your own ideas and knowledge from wording or substantive information that you derive from one of your sources. The term “sources” includes not only published primary and secondary material, but also information and opinions gained directly from other people and text that you cut and paste from any site on the Internet.

#### ***The responsibility for learning the proper forms of citation lies with you.***

Quotations must be placed properly within quotation marks and must be cited fully. In addition, all paraphrased material must be acknowledged completely. Whenever ideas or facts are derived from your reading and research, the sources must be indicated. (Harvard *Handbook for Students*, 305)

- Considerations for use of internet sources: As you browse websites, assess their usefulness very critically. Who posted the information and why? Can you trust them to be correct? Authoritative? Unbiased? Your annotation should include the name of the author or organization originating any material that you reference. If you can't identify the source, don't use it!
- *Please consult information in the SEA Student Handbook on Academic Integrity and direct any questions to SEA Semester faculty.*

### Readings:

- Archer, Diane. Building urban climate resilience through community-driven approaches to development: Experiences from Asia. *International Journal of Climate Change Strategies and Management* 8(5):654-669. 2016.
- Black, Richard, Stephen R.G. Bennett, Sandy M. Thomas, and John R. Beddington. Migration as Adaptation. *Nature* 478:447-9. 2011.
- Buhaug, Halvard. Climate-conflict research: some reflections on the way forward. *WIREs Clim Change* 6:269-275. 2015.
- CNA Military Advisory Board. National Security and the Accelerating Risks of Climate Change. Alexandria, VA: CNA Corporation. 2014.
- Hallegatte, Stephane, Mook Bangalore, and Laura Bonzanigo. *Shock Waves: Managing the Impacts of Climate Change on Poverty*. Climate Change and Development Series. Washington, DC: World Bank. 2016.
- Kabisch, N., N. Frantzeskaki, S. Pauleit, S. Naumann, M. Davis, M. Artmann, D. Haase, S. Knapp, H. Korn, J. Stadler, K. Zaunberger, and A. Bonn. Nature-based solutions to climate change mitigation and adaptation in urban areas: perspectives on indicators, knowledge gaps, barriers, and opportunities for action. *Ecology and Society* 21(2):39. 2016.
- Kinley, Richard. Climate change after Paris: from turning point to transformation. *Climate Policy* 17(1):9-15. 2017.
- MassSenate Committee on Global Warming and Climate Change. *The Massachusetts Clean Energy Future Report*. January 2018.
- Moriarty, Patrick, and Damon Honnery. Future cities in a warming world. *Futures* 66:45-53. 2015.
- Scandrett, Eurig. Climate justice: contested discourse and social transformation. *International Journal of Climate Change Strategies and Management* 8(4):477-487. 2016.
- Scott, Heidi. Energy Ontologies: Wind, Biomass, and Fossil Transportation. *Humanities* 5(37): doi:10.3390/h5020037. 2016.
- Schlosberg, David, and Lisette B. Collins. From environmental to climate justice: climate change and the discourse of environmental justice. *WIREs Clim Change* doi: 10.1002/wcc.275. 2014.

Selby, Jan. Positivist Climate Conflict Research: A Critique. *Geopolitics* 19:829-856. 2014.

Walliman, Nicholas. *Research Methods: The Basics* (Second Edition). New York: Routledge. 2011.

**Course Calendar:**

Topic	Readings/Assignments Due
<b>Week 1 (6 hours) – on shore at SEA campus in Woods Hole</b>	
<p><b>First Shore Component</b></p> <p><b>Seminar:</b> Introduction to the themes, readings, and expectations for the course.</p> <p><b>Workshop:</b> How to design a research project</p>	<p><b>Readings:</b> Walliman 2011 (Ch. 3, “Structuring the research project” and Ch. 5, “Finding and reviewing the literature”)</p>
<b>Week 2 (8 hours) – on shore at SEA campus in Woods Hole</b>	
<p><b>Seminar:</b> Urban climate resilience</p> <p><b>Field Trip:</b> The Port of Boston; BU Pardee Center (Case Study 1)</p>	<p><b>Readings:</b> Archer 2016; Moriarty &amp; Honnery 2015; Kabisch et al 2016</p>
<b>Week 3 (6 hours) – on shore at SEA campus in Woods Hole</b>	
<p><b>Seminar:</b> Conflict</p> <p><b>Seminar:</b> National security</p>	<p><b>Readings:</b> Buhaug 2015; Selby 2014; CNA 2014</p> <p><b>Due:</b> Research statement and bibliography; Case Study 1 Summary</p>
<b>Week 4 (6 hours) – on shore at SEA campus in Woods Hole</b>	
<p><b>Seminar:</b> Energy</p> <p><b>Field Trip:</b> MA Clean Energy Center (Case Study 2)</p>	<p><b>Readings:</b> MassSenate 2018; Scott 2016</p>
<b>Week 5 (6 hours) – on shore at SEA campus in Woods Hole</b>	
<p><b>Seminar:</b> Climate migration</p> <p><b>Seminar:</b> Climate and poverty</p>	<p><b>Readings:</b> Black et al 2011; Scandrett 2016; Schlosberg &amp; Collins 2014; Hallegatte et al 2016</p> <p><b>Due:</b> Case Study 2 Summary</p>

<b>Week 6 (16 hours) – on shore at SEA campus in Woods Hole</b>	
<p><b>Seminar:</b> Field case studies preview</p> <p><b>Project Writing workshop</b></p>	<p><b>Readings:</b> Site-specific readings to guide second shore component case study</p> <p><b>Due:</b> Research paper draft</p>
<b>Week 7 (8 hours) – on shore in New Zealand</b>	
<p><b>Second Shore Component</b></p> <p><b>Three Field Trips/Seminars with local program partners</b></p> <p><b>Field Data Collection for research papers</b></p> <p><b>Case Study 3</b></p>	<p><b>Readings:</b> Site-specific readings to supplement field trip activities</p> <p><b>Due:</b> Case Study 3 Summary</p>
<b>Week 8 (8 hours) – at sea</b>	
<p><b>Sea Component</b></p> <p><b>Field Trip</b></p> <p><b>Field Data Collection for research papers</b></p>	
<b>Week 9 (8 hours) – at sea</b>	
<p><b>Research Writing Workshop</b></p> <p><b>Topic Discussion:</b> The Paris Agreement</p>	<p><b>Readings:</b> Paris Agreement 2015; Kinley 2017</p>
<b>Week 10 (8 hours) – at sea</b>	
<p><b>Research Writing Workshop</b></p> <p><b>Seminar:</b> Writing a Research Paper from Field Data</p>	
<b>Week 11 (8 hours) – at sea</b>	
<p><b>Field Trip</b></p> <p><b>Field Data Collection for research papers</b></p>	<p><b>Due:</b> Case Study 4 Summary</p>

<b>Case Study 4</b>	
<b>Week 12 (12 hours) – at sea</b>	
<p><b>Field Trip</b>  <b>Field Data Collection for research papers</b>  <b>Paper and Executive Summary development</b>  <b>Research Presentation</b></p>	<p><b>Due:</b> Final Research Paper and Executive Summary</p>