**Writing For Change:**

**Making Interdisciplinary Global Change Research Visible**

Writing well is essential to academic productivity and success, and to maximize the benefit of research for society. Clear writing is essential for scholars to be able to understand and use insights across disciplines. Researchers can also make a much greater contribution to society if they are able to write for a public audience, ranging from popular summaries of their scientific work to op-ed pieces in the media. Powerful written communication is especially important for meeting the social and scientific challenges of climate change and biodiversity conservation. However, early-career researchers often receive little or no writing training, which can seriously limit their career development. It is critical to train early-career researchers in these skills to maximize their impact and open career opportunities.

This course will be newly developed for Spring 2016 to meet the need for training a new generation of strong writers working on climate change. This will be achieved through focusing on four intended learning outcomes: a deep understanding of the **purpose, process, and patterns** of good writing, accomplished through extensive writing **practice** and feedback. To develop **purpose**, students will articulate their own writing goals, as well as reading and discussing writing targeted at different audiences to develop the aim to write for a reader. The **process** of writing will be taught through practical exercises in generating, writing, editing, and revising ideas, an intensive practice for which the limited class size of 16 students is essential. We will analyze writing **patterns** through working with both model and student-generated texts (academic papers as well as pieces targeted at the public, including blog posts, press releases, features, and op-eds), to understand the structure and function of different elements. This will also include a focus on clear visual communication through graphical representation of results, and smooth integration of text with figures to tell a clear and compelling story. The course format will include lectures, discussions, and guest speakers, but the **process** will primarily be hands-on through intensive workshop exercises and activities designed to make writing visible and the complex skills of writing accessible. Expected course outputs include strong academic manuscripts, as well as compelling writing for the public, including collaboratively authored public science pieces that draw together the expertise of ClimBEco students around timely topics with global impact, particularly focused on urgently needed climate change and biodiversity conservation solutions.

The course design follows the interdisciplinary goals of ClimBEco itself, in bringing together an experienced course leader with a strong interdisciplinary research background in climate change and ecosystem services (LUCSUS Associate Professor Kimberly Nicholas), a professional science writer working on environmental news stories for over 20 years (Mark Fischetti, Senior Editor at *Scientific American*), and a professional academic writing consultant (Ladaea Rylander, of the Lund University Academic Support Centre). We hope to make it a recurring course. We see this course as a compliment and perhaps a precursor to the existing Communicating Science ClimBEco course, in that our course focuses on producing clear written texts that can then be communicated broadly through a variety of traditional and social media and audiovisual formats.

**Appendix 1: Course Details**

**Course format:** One week intensive off-site at Breanäs Missiongård, plus on-campus exercises before and after (these will be hosted by LUCSUS)

**Course status:** newly developed course for Spring 2016; intended to be recurring.

**Course offered:** May 2016

**Co-funding:** All participants will give an in-kind donation of their time for course preparation. The only funding requested is to cover expenses.

**Appendix 2: Instructor Bios**

**Kimberly Nicholas**, course responsible

Associate Professor, Lund University Centre for Sustainability Science (LUCSUS)

Kim’s research focuses on climate change and ecosystem services. She is a Task Lead for the European FP7 project OPERAs (Operationalizing Ecosystem Services), where she coordinates a dozen case studies in ecosystems across Europe, including one she leads on sustainable wine production. She is the PI for the new Agromes project, funded by Vetenskapsrådet for 2015-2018, which will analyze the social, economic, and environmental tradeoffs of agriculture in Europe. She holds three interdisciplinary degrees, including a PhD from the Interdisciplinary Program in Environment and Resources at Stanford University, USA, where she combined ecological and anthropological approaches.

Her commitment to improving academic writing is seen in her professional work as an Associate Deputy Editor at the journal *Climatic Change*, as well as contributing to the scholarship of teaching and learning through leading a paper on how to write a refereed peer review for a journal manuscript, which has been widely distributed, and a book chapter coauthored with Ladaea Rylander on using peer tutors to teach writing as part of interdisciplinary, international education at Lund University. She also has experience in scientific writing for the public, including a feature article on wine and climate change in Scientific American in January 2015, and various blog posts (please see “Communication” section of my website, kimnicholas.com).

Kim’s teaching experience is both practical and theoretical. On the practical side, she has experience as course responsible for seven course offerings at Lund University and one in South Korea, focused on climate change, land use change and biodiversity conservation, and planetary boundaries. She has developed extensive teaching materials to teach students writing skills (many are available here: <http://www.kimnicholas.com/blog/cheat-sheets-for-writing-scientific-papers>), and is currently developing a course curriculum based on synthesis science from the Intergovernmental Panel on Climate Change. On the theoretical side, she has completed courses on science course design at Stanford University and Lund University, including Learning and Teaching in Higher Education Levels 1 and 2, as well as the Docent course.

**Mark Fischetti**, course co-instructor

Senior Editor, *Scientific American*

Mark has overseen *Scientific American’s* coverage of climate, environment and sustainability for eight years. He has written about climate change, land use, biodiversity, sea level rise and more for the print magazine and its Web site. His 2001 article, “Drowning New Orleans,” predicted the widespread disaster that a storm like Hurricane Katrina would impose, and explained how harm could be prevented—four years before Katrina hit. More than half of the magazine’s feature article are written by scientists, so his primary role is to help experts turn academic research into articles that are scientifically compelling, easy to read and persuasive.

For seven years Mark edited the magazine’s “Working Knowledge” column, which presented graphics that explain how technology words, and for the past five years he has edited the Graphic Science page, which presents data visualizations on hot science topics of the day. He has also written features and editorials for the *New York Times*, *Smithsonian* and many others, and has appeared on television and radio across the U.S. He has a physics degree (journalism minor), and has twice spent a week teaching students about writing, as the Attaway Fellow in Civic Culture at Centenary College, which awarded him an honorary doctorate.

**Ladaea Rylander**, course co-instructor

Writing Consultant, Academic Support Centre, Lund University

Ladaea is an English language and study consultant at Lund University’s Studieverkstaden, which provides students with support in academic writing, speaking and presenting, and reading and study skills. She runs Studieverkstaden’s English section, the Academic Support Centre (ASC), which she has developed since November 2012. At the ASC she works with students (from the bachelor to PhD level) individually and in groups, holds workshops and seminars, and collaborates with faculty who want to incorporate writing support into their courses.

As part of her central position, Ladaea meets students (and increasingly, teachers) from all faculties, which means she has a broad understanding of writing expectations in many disciplines, both where they differ and importantly, where they converge. She also has direct experience developing writing support for interdisciplinary programs. With Kim Nicholas, she’s recently co-authored a book chapter on a peer writing project designed to introduce a diverse group of international, interdisciplinary students to writing expectations in their program. She has also developed academic writing material for LU’s Graduate School’s three interdisciplinary master’s programs.

Prior to her post in Sweden, Ladaea worked with writers from all disciplines in Hong Kong at City University’s Language Clinic and as a Fulbright English Teaching Assistant (2009-2010) at the Hong Kong Institute of Education.