

## **English 306, Advanced Composition: Science Writing**

### **Instructors:**

Gina Maranto (English Composition)

Gene Rankey (Marine Geology; RSMAS)

### **Description:**

Many students of science have problems communicating with non-scientists. Many non-scientists have difficulty understanding science. By developing a course centered on shared science experiences for advanced undergraduate scientists and writers, we will facilitate scientists' skills for communicating science and its importance for a general audience, and will show writers how science works and why it is of compelling interest to the public.

**NOTE: YOU ARE REQUIRED TO ATTEND FIELD TRIPS; SEE MORE BELOW.**

Through writing about your shared field experiences and experiments, you will learn to make your thought processes more explicit and observe different techniques, tools, and purposes of writing, thereby facilitating development and application of critical thinking skills. As a final project, and continuing beyond the duration of the course, you will have the opportunity to write science articles for papers in the Geological Society of America (GSA) *Bulletin*, with results posted on the GSA web site, and for *El Nuevo Herald*, the largest Spanish-language newspaper in the U.S. Examples of effective and ineffective science writing, guidelines for science communication, and summaries of your insights will be distributed on the course internet site and linked to the GSA site.

The goals of this advanced undergraduate course are 1) to bring together geology, marine science, and environmental science majors (collectively, 'scientists'), and students of journalism and English (collectively, 'writers'), 2) to help develop an understanding of Earth system science (ESS) linkages and how ESS works, and 3) to foster accurate and clear communication of ESS concepts, data, and findings. The course will consist of three parts, centered on a field component. In each part, you will critically assess how to communicate effectively and accurately among yourselves and for different audiences. Specifically: 1) goals for the scientists are: learn to assess and explain the uses and meanings of jargon; to practice summarizing research concisely and precisely; and to find out how non-science majors receive science; 2) goals for the writers are: to nurture an excitement for and appreciation of ESS; to learn to identify and communicate scientific jargon; and to be able to describe and explain scientific work and concepts, paying close attention to scientific accuracy; and 3) goals for both groups include: discovering the challenges and significance of communicating science; nurturing an understanding of the scientific process; and developing a social network that can be used for support and motivation.

### **Textbook:**

This course will not require purchase of a textbook. Instead, it will rely on primary literature that will be provided as the class proceeds.

### **Assignments & Grading:**

Turn in writing assignments on time. Speak to the instructors in advance if you have a legitimate reason for turning in an assignment late. Please submit papers formatted in a readable 12-point font, double-spaced, with your name and the word count on the first page.

You will be graded on your assignments and on class participation. We expect a consistent level of effort and engagement with the course, and signs of progress in your writing over the length of the semester. A's are reserved for those students who show that they have mastered the fundamentals of science writing, and moved beyond them towards the development of a distinctive voice and point of view. If you are absent routinely, you are clearly not engaged in the course and your grade will accordingly suffer. As a rough rule of thumb, your attendance and participation will represent 20 per cent of your grade. Plagiarism will earn you an automatic F in the course, and referral to the Honor Council.

During the semester, you'll have occasion to interview scientists; reading scientific and technical journals, as well as general science magazines; to do informal in-class presentations; to review each other's rough drafts; to carry out revisions, and to post various material to the course website. Due dates and assignment lengths may change as the semester progresses to accommodate the class's needs, pace, and direction. Specifics of assignments will always be posted in advance on the course website, in addition to being discussed in class.

## Lectures:

	<b>Topic</b>
<i>Week 1</i>	Course Overview: What is Science? Earth System Science?
<i>Week 2</i>	Scientific Communication; Communication of Science Concepts to Non-Scientists
<i>Week 3</i>	Assessment of Journalistic Presentations of Science; Exercise
<i>Week 4</i>	Assessment of Exercise; Editing Science Journalism Manuscripts
<i>Week 5</i>	Editing Science Journalism Manuscripts; South Florida Coastal Systems
<i>Week 6</i>	South Florida Coastal Systems: Exploring Linkages; Exercise
<i>Week 7</i> <b><i>Spring Break</i></b> <b><i>13-21 March</i></b>	South Florida Coastal Systems; Exercise
<i>Week 8</i>	Doing Science: Analysis of Field Data
<i>Week 9</i>	Competing Scientific Claims; Examples
<i>Week 10</i>	Ethics and Science Writing; Examples of mis-reporting
<i>Week 11</i>	Real-world applications: GSA Bulletin & El Nuevo Herald
<i>Week 12</i>	Real-world applications: GSA Bulletin & El Nuevo Herald
<i>Week 13</i>	Real-world applications: GSA Bulletin & El Nuevo Herald
<i>Week 14</i>	Real-world applications: GSA Bulletin & El Nuevo Herald

## Policies:

### *Attendance at Class Lectures*

You are here to learn, but we cannot force you. Your attendance and participation is critical for learning some of these concepts – you cannot make them up. Because we will be doing a lot of in class work and forming various groups and teams, your absence will be noted.

### *Attendance in Field Trips*

Attendance and participation in the field trips is a required part of the course. These trips provide opportunities for unique experiences of the South Florida coastal system and to collect, analyze, and interpret data.

*Readings*

You will be required to do readings ahead of time, before class. Some of the classes will start by asking you to reflect on the readings, so it is best to be prepared.

*Internet:*

You're required to sign up for the course website (we will go over this in class), and should also sign up for The New York Times website (<http://www.nytimes.com>) so that you can read their science coverage in the Tuesday section.