

**BACHELOR OF ARTS & SCIENCE  
TRENT UNIVERSITY**

**ASCI 2000H: METHODS AND COMMUNICATION  
2015 FA  
Peterborough**

<b>Instructor:</b> Dr. Kalina Kamenova	<b>Trent Email:</b> kalinakamenova@trentu.ca	<b>Telephone:</b> (705) 748-1011 x 7079
<b>Campus:</b> Symons, Peterborough	<b>Office Location:</b> ESC A201.1	<b>Office Hours:</b> Mondays, 2pm to 3pm or by appointment

<b>Academic Administrative Assistant:</b> Ms. Jackie Orsetto	<b>Email:</b> <a href="mailto:jorsetto@trentu.ca">jorsetto@trentu.ca</a>
<b>Office Location:</b> ESC A201	<b>Telephone:</b> (705) 748-1011 x 7079

**Course Description:**

Science communication encompasses a broad array of scientific disciplines, from the biological, life and physical sciences to the social sciences and humanities and applied fields such as medicine, environmental sciences, engineering and technology. This course examines the evolution of science communication as an interdisciplinary field of inquiry, addressing key issues, concepts, methodologies, research agendas, and paradigms in communicating science and public understanding of science and technology. Course topics include scientific literacy, public perceptions and attitudes, science-related decision making, science journalism, media framing of scientific controversies, advocacy and advertising, rhetoric and representation in scientific discourse, audience analysis and adaptation, public engagement with science, research methods in science communication, and future directions in science communication education.

**Course Pre-requisites:**

70% or higher in ASCI 1000Y. Only open to students enrolled in the BAS program.

**Required Texts:**

*The textbook can be purchased at the Trent University Bookstore or as a Kindle edition on Amazon.com. Additional readings will be posted on the course Blackboard page.*

Kahlor, LeeAnn, and Patricia Stout, eds. *Communicating Science: New Agendas in Communication*. Routledge, 2009.

**Recommended Texts:**

*The following e-resource on key concepts, theories and methods in science communication is available through Bata Library:*

Priest, Susanna Hornig, ed. *Encyclopedia of Science and Technology Communication*. Thousand Oaks, CA: SAGE Publications, Inc., 2010.

### **Blackboard:**

This course is supported by a Blackboard page. This resource will provide students with access to course materials such as the syllabus, lecture notes, course readings in electronic format, assignment descriptions, changes in class schedule, and other relevant information. Please check the Blackboard page and your Trent email once a week.

### **Course Format:**

Please check <http://www.trentu.ca/timetable/> to confirm times and locations.

Type	Day	Time	Location
Lecture	Tuesday	12:00 pm - 02:50 pm	OCA Room 204

### **Learning Outcomes:**

This course aims to enable students:

- To be familiar with the evolution of science communication as an interdisciplinary field of inquiry
- To understand key concepts, theories, and models of public understanding of science;
- To understand fundamental principles and ethical standards in science communication;
- To learn about quantitative and qualitative methods in science communication that are relevant to research in the humanities, social sciences, and the sciences;
- To be familiar with strategies for communicating science and research, including audience analysis and adaptation;
- To utilize effective writing techniques to develop research proposals and research papers.

### **Course Evaluation:**

Normally **at least 25%** of the grade in an undergraduate half-credit course offered in the Fall/Winter academic session must be determined and made available by the final date for withdrawal. **Fall 2015, final date for withdrawal is November 10, 2015. Winter 2016, final date for withdrawal is March 3, 2016.** For full-year courses **at least 25%** of the grade must normally be determined and made available before the **mid-year review in January**. No final examination is worth more than 50% of the final grade. With the exception of laboratory examinations in the sciences, no in-class tests or final examinations which are worth more than 10% of the final grade may be held during the last two weeks of classes in the Fall or Winter term.

Type of Assignment	Weighting	Due Date
Presentation	10%	See description
Proposal and Annotated Bibliography	25%	October 13 in class
Research Paper	25%	December 1 in class
Final Exam	20%	TBA
Attendance and Participation	20%	Throughout the term

### **Presentation (Due throughout the term)**

Each student will give a short (15 minute) presentation on one of the assigned course readings. The student is expected to present a summary of the major themes and arguments of the text, evaluate its merits (e.g., to provide a critical reflection, emphasize how the text enriches our understanding of science communication, give specific examples to criticize or support the arguments of the reading, etc.) and raise questions for class discussion. You may simply give an oral presentation based on written notes or use PowerPoint slides or other visuals (e.g., a poster, handout, multimedia presentation). *Readings will be assigned for presentation in the first week of classes.*

### **Proposal and Annotated Bibliography (Due at the beginning of class on October 13)**

Students will develop a five-page research proposal on a topic relevant to the course themes. The proposal will present an outline, approximately three pages double-spaced, of the major themes and arguments of the paper, methodology used and expected conclusions. It should include a two-page annotated bibliography of five academic sources for the paper (e.g., peer reviewed journal articles, scholarly books, credible web-based sources). Annotations should not exceed 100 words in length each, and should clearly state the relevance of each source to the proposed research. *A list of suggested topics will be handed out in the second week of classes.*

### **Research Paper (Due at the beginning of class on December 1)**

Based on the proposal, students will complete a research paper. Papers should be about 3000 words (approximately 8-10 pages). The word count should exclude the abstract and the bibliographical references, as well as any tables and figures. The papers should be formatted in accordance with the APA's 6th edition style guide, e.g. double spaced on standard-sized paper (8.5" x 11") with 1" margins on all sides, left aligned, font 12 pt Times New Roman, and consist of four major sections: Title Page, Abstract, Main Body, and References. Students may use the following electronic resource on the APA formatting and style guide:  
<http://owl.english.purdue.edu/owl/resource/560/01/>

### **Exam (date will be announced)**

Final exam will be held at the end of the Fall Term worth 20% of the final mark. The exam will be two hours in duration and will consist of multiple choice, short answer questions and essay questions that cover material from the lectures and the required readings. The Instructor will conduct an exam review and provide a study guide in the last week of classes. Rewrites will not be permitted. Deferred exams may be granted in exceptional circumstances with prior permission of the Instructor. Students must have well-documented reasons for requesting a make-up exam, such as illness, compassionate grounds, etc., and are required to submit supporting documentation (e.g., a doctor's letter). *Deferred exams will not necessarily be the same format.*

### **Attendance and Participation (throughout the term)**

Students' attendance and participation will be evaluated. Consistent attendance is essential for success in this course. Participation in class discussions is a key aspect of students' learning. Active involvement in class discussions greatly enhances learning outcomes as students have the

opportunity of hearing different ways of interpreting and applying course material and can learn from each other. Students also develop ability to articulate critical arguments, clarify errors and misunderstandings, and tend to remember better the material studied. It is expected that students will complete the assigned readings prior to each class and will contribute thoughtful opinions on relevant topics. Students should communicate with the Instructor on their participation and interim feedback will be provided.

**Week-by-week schedule:**

<b>Week</b>	<b>Date</b>	<b>Topic and Readings</b>
1	Sept. 15	<b>Course Overview</b> <i>Readings:</i> Syllabus; Introduction, <i>Communicating Science</i>
2	Sept. 22	<b>Conceptual Models of Science Communication: From the “Deficit” Model of Public Understanding of Science to the Public Engagement Paradigm</b> <i>Readings:</i> Chapter 1, <i>Communicating Science</i>
3	Sept. 29	<b>Media Influence: Framing and Agenda-Setting Theories</b> <i>Readings:</i> Chapters 2 and 9, <i>Communicating Science</i>
4	Oct. 6	<b>Science Communication in a Persuasive Context</b> <i>Readings:</i> Chapter 4, <i>Communicating Science</i>
5	Oct. 13	<b>Rhetoric and Representation in Scientific Discourse</b> <i>Readings:</i> Chapter 7, <i>Communicating Science</i>
6	Oct. 20	<b>Scientific Arguments in the Deliberation of Public Controversies</b> <i>Readings:</i> Chapters 6 and 8, <i>Communicating Science</i>
	Oct. 26-30	<b>Reading week</b>
7	Nov. 3	<b>Audience Analysis and Adaptation</b> <i>Readings:</i> Susanna Hornig Priest, “Audiences for Science” and Suman M. Lee “Active Audiences and Science,” <i>Encyclopedia of Science and Technology Communication</i>
9	Nov. 10	<b>Quantitative Methods in Science Communication</b> <i>Readings:</i> Selected articles will be posted on Blackboard
10	Nov. 17	<b>Qualitative Methods in Science Communication</b> <i>Readings:</i> Selected articles will be posted on Blackboard
11	Nov. 24	<b>Participatory Research</b> <i>Readings:</i> Chapter 3, <i>Communicating Science</i>

12	Dec. 1	<b>Interdisciplinary Science Communication Education</b> <i>Readings:</i> Chapter 10, <i>Communicating Science</i>
13	Dec. 8	<b>Course and Exam Review</b>

## **Course Policies:**

### **Late Assignments**

The deadlines for assignment submission in this course are firm. All assignments are to be turned in at the beginning of the class on the day it is listed as due on this syllabus. A penalty of 5% per day will be levied upon any late assignments. The Instructor may grant extensions for valid reasons such as illness, compassionate grounds, etc. but will require supporting documentation (e.g., a valid certificate from a physician). In all cases, requests should be submitted prior to the assignment due date.

### **Assignment Submission and Safe-Assign**

All assignments must be submitted both electronically to the SafeAssign drop box in Blackboard and in hard copy at the beginning of the class on the due date. SafeAssign utilizes plagiarism-checking software. Further information about SafeAssign will be provided on the class Blackboard site.

## **University Policies**

### **Academic Integrity:**

Academic dishonesty, which includes plagiarism and cheating, is an extremely serious academic offence and carries penalties varying from failure on an assignment to expulsion from the University. Definitions, penalties, and procedures for dealing with plagiarism and cheating are set out in Trent University's *Academic Integrity Policy*. You have a responsibility to educate yourself – unfamiliarity with the policy is not an excuse. You are strongly encouraged to visit Trent's Academic Integrity website to learn more: [www.trentu.ca/academicintegrity](http://www.trentu.ca/academicintegrity).

### **Access to Instruction:**

It is Trent University's intent to create an inclusive learning environment. If a student has a disability and documentation from a regulated health care practitioner and feels that he/she may need accommodations to succeed in a course, the student should contact the Student Accessibility Services Office (SAS) at the respective campus as soon as possible, (Peterborough, Blackburn Hall, Suite 132, 705-748-1281 or email [sas@trentu.ca](mailto:sas@trentu.ca) For Trent University – Durham, Thornton Road, Room 111 contact 905-435-5102 ext. 5024 or email [corinnphillips@trentu.ca](mailto:corinnphillips@trentu.ca) . Complete text can be found under Access to Instruction in the Academic Calendar.