



FACULTY OF SOCIAL SCIENCE AND HUMANITIES

COMM 3330U: Scientific and Technical Writing

Course Outline for Winter Semester 2011

1. Course Details & Important Dates*

Term	Section	Status	Course Type	Day	Time
W			3 cr, 3 lec	Wednesday & Friday	9:40-11:00 am

Location*	CRN #	Classes Start	Classes End	Last Day to Drop Courses	Final Exam Period
DTB 210		January 10, 2011	April 14, 2011	March 23, 2011	April 18-30, 2011

* for other important dates go to: www.uoit.ca >Current Students >Important Dates

Prerequisite(s): COMM 2310U or equivalent and third year standing in Communication

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Kalina Kamenova	DTB423		kalina.kamenova@uoit.ca
Office Hours: Wednesday & Friday 11:00am-12:00pm			

3. Course Description

Calendar Description: This course provides an overview of technical and scientific writing style and standards. It reviews the processes involved in research, writing, revisions, and presentation of scientific and technical texts. Regular assignments will focus on information retrieval, data recording and organization, documentation, memos, short and long reports, and graphics, as well as special problems in scientific and technical writing, such as definitions, instructions, process explanations, abstracts, and descriptions of products.

Extended Description: This course provides an overview of scientific communication and writing. It is divided into three sections: Part I reviews the principles and purposes of scientific communication. We will explore the social nature of scientific knowledge, the role of science and technology in public communication and debate, as well as the ethical dimensions of scientific communication. Part II introduces students to conventions of scientific discourse and the fundamentals of scientific and technical writing. We will identify challenges faced by scientific and technical writers, examine the stages of an efficient writing process, use communication models, and develop an audience/ profile analysis to help choose content, structure, design and style for a document. Part III focuses on the development of practical skills in scientific and technical writing. Students will study techniques for

information gathering, analysis and manipulation, learn to write effectively and clearly scientific documents such as review articles, analytical reports, and research proposals, as well as to prepare oral presentations (e.g., conference presentations, research talks).

4. Course Outcomes

On the successful completion of the course, students will be able to:

- Learn key concepts, definitions and models in scientific communication.
- Use audience analysis to develop documents for diverse groups of readers such as scientific and technical experts, semi-technical readers, and lay persons.
- Understand the challenges faced by scientific and technical writers.
- Identify and use the stages of an efficient writing process.
- Utilize the techniques of rhetoric and persuasive communication.
- Apply guidelines for ethical communication.
- Adapt the standard stages of the research process to develop a particular project.
- Identify and select primary and secondary information sources.
- Analyze specific forms of technical writing such as definitions, instructions, process explanations, abstracts, and descriptions of products.
- Develop review articles, analytical reports, research proposals and oral presentations.

5. Course Design

There will be two short weekly lectures followed by class discussions. Students are expected to attend regularly, do the assigned readings, be active listeners and participants in class discussions, and collaborate efficiently in the group assignments.

6. Outline of Topics in the Course

Jan. 12: Course Introduction

Part I: Principles and Purposes of Scientific Communication

Jan. 14: The Social Nature of Science

Jan. 19: Science in Public Communication and Debate

Jan. 21: Public Engagement with Science and Technology

Jan. 26: Technology in Scientific Communication

Jan. 28: Persuasion in Scientific Discourse

Feb. 2: Ethics in Scientific Communication and Writing

Feb. 4: Communicating Controversies in Science and Technology

Part II: Fundamentals of Scientific and Technical Writing

Feb. 9: Writing Efficiently

Feb. 11: Audience/Purpose Analysis

Feb. 16: Writing Styles: Rhetoric, Persuasion and Ethics

Feb. 18: Information Gathering and Analysis

Reading week - February 21 -25

March 2: Documenting Research and Summarizing Information

March 4: Descriptive Writing: Definitions, Descriptions and Specifications

Part III: Applying Conventions of Scientific Discourse

March 9: Review Articles

March 11: Research Reports

March 16: Conference Papers, Posters and Presentations

March 18-April 8: In class presentations

April 13: Course review

7. Texts/Readings

Recommended:

- 1) Penrose, A. M., & Katz, S. B. (2010). *Writing in the sciences: Exploring conventions of scientific discourse* (3rd Ed.). New York, NY: Longman/Pearson. (**on reserve, call number: T11 .P42 2004**)
- 2) American Psychological Association (APA). (2010). *Publication manual of the American Psychological Association* (6th Ed.). Washington, DC. (**UOIT Library Ref. # BF76.7 .P83 2010**)

The formatting and reference style guide which will be used in the course is the 6th edition of the *Publication Manual of the American Psychological Association* (APA). For all rules and requirements of APA citations, students should consult the APA Reference and Style Guide. Students may also use the

electronic resource on the APA formatting and style guide available at <http://owl.english.purdue.edu/owl/resource/560/01/>.

Please note: Required readings will be available online at the course WebCT/Vista site.

8. Evaluation Method

20%	Attendance and participation
20%	Midterm (take home) exam
20%	Review article
20%	Presentation
20%	Collaborative research/recommendation report

Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information regarding grading can be found in Section 5 of the UOIT Academic Calendar.

9. Assignments and Tests

Assignment 1: Midterm (take home) exam –Due Feb. 18, 9:30 am

The midterm exam is worth 20% of your grade. This is a take home exam. Two essay questions will be provided in the lecture on February 16. The questions will also be posted on the course WebCT page at 9:30 am that same day. You will have exactly two days to complete the exam. You will have to submit your answers, as a Word document, via email to the course instructor by 9:30 am on February 18, 2011. *Students who submit their exam after the deadline will receive the grade of zero.*

The exam will cover material from the first section of the course. The questions must be answered in an essay format. The paper must be written in 12-point font with one-inch margins all around, double-spaced and you are limited to a maximum of 5 pages. All sources should be documented with proper in-text citations and a full reference list in APA style.

Assignments 2, 3 and 4: Review article, Presentation and Collaborative research report

Assignments 2, 3 and 4 are collectively worth 60% of your grade. In addition, these assignments are related to each other. A detailed description of each of these assignments, as well as the collaborative components involved, is provided below:

OVERVIEW

This combined project has 3 components. Two of them are assignments that you will complete individually and the third is a collaborative research report. Assignment 4, the collaborative report, requires that you incorporate the information developed in Assignment 2, the review article. This means that although Assignment 2 is individual, you will need to coordinate the writing process with your team members to choose a general topic.

The three assignments are:

1. A review article – this is an individual assignment
2. A short presentation - this is an individual assignment
3. A collaborative report – this is a collaborative assignment

PROCESS

You will work in groups of four people. Form your groups as soon as possible and provide the names of your team members to the course instructor. As a group, you will need to select one of the topics from the list below and develop your collaborative research report on this topic. If you would like to work on a topic that is not included in the list, you need to obtain the permission of the course instructor as soon as possible.

Each person will write an individual review article on the topic from a different perspective. Before finalizing the topic, make sure that you discuss the different perspectives you will focus on in researching the topic and that each team member has chosen one of those perspectives for his or her review article.

POSSIBLE TOPICS

- Stem cell research
- Human genetic enhancement
- Assisted human reproduction
- Genetically modified foods
- Climate change
- Nanotechnology
- Vaccines

ASSIGNMENT DETAILS

Assignment 2: The review article – Due March 16 in class

Once your team has selected one of the topics listed above, each team member must choose a different perspective to research. Before you agree on a specific topic, make sure you have some idea of the perspective you will be responsible for and that you have a starting point for your research. You may choose from the following perspectives:

- Ethical implications
- Societal implications
- Political implications
- Legal implications
- Economic impact
- Environmental impact
- International/global impact

If you decide to choose another perspective, you have to receive the approval of the course director. You are to write a review article that summarizes the current state of the research (e.g., recent major advances and discoveries, significant gaps in the research, current debates, and ideas of where research

might go next) on your topic from the perspective you have chosen. Although this assignment is not limited to a literature review on the topic, it requires that you use primarily scholarly, peer-reviewed sources to determine what leading scholars in the field see as impacts of your perspective. Therefore, you should conduct an in-depth search of the existing literature related to the broader topic of your paper and select at least five peer-reviewed sources as supporting evidence. You will also need to identify a more specific area of interest within the broad topic which will become the focus of your paper or its “thesis statement.” This implies that your paper should be focused around a specific perspective or purpose, rather than provide a broad historical perspective on what scholars have been written on the topic. All sources used should be documented with proper in-text citations and a full reference list in APA style.

The paper must be written in 12-point font with one-inch margins all around. The paper must be double-spaced and you are limited to a maximum of 6 pages. The 6-page limit will be strictly enforced and all tables and charts must be included within the 6 pages. Hand in a paper copy to the course instructor at the beginning of the lecture on March 16.

Assignment 3: The presentation – Due March 18-April 8 (the schedule will be posted on WebCT in February)

In this assignment you will present a summary of your review article to the class. You will have 10-15 minutes to summarize the main points of your research in a way that is interesting to your audience. Your goal will be to adapt the material in your review article to suit a more general audience and present the material in a clear and logical manner so that your audience could follow explanations easily. Students are encouraged to use PowerPoint slides or other presentation materials (e.g. conference posters, handouts, multimedia presentation).

Assignment 4: Collaborative research/recommendation report – Due April 13 in class

The Collaborative report is the final component and the final goal of this larger project. This report will present an overview of different perspectives on your chosen research topic. You will include analysis and/or make recommendations. Therefore, the report must be both informative and persuasive.

The report should be written in a formal style including a title page, table of contents, list of figures, abstract, list of references and any other appropriate appendices. The report will be single-spaced. The body of the report should be 8-10 pages of written material. Where appropriate, you should incorporate tables, charts, pictures or other graphics that support your ideas into the report. However, these graphs are not included as part of the 8-10 pages of written material; you need to have 8-10 pages of written material in addition to any graphics.

APA style should be used for referencing and in-text citations. This is a research-based so references and in-text citations are required.

Please note that faculty rules apply to all missed/late assignments and medical excuses.

10. Accessibility

To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to

speak with their instructor as soon as possible. Students who require alternative testing and examination arrangements or other academic accommodations must contact the Centre for Students with Disabilities (B297) as early as possible to ensure that your needs can be met.

11. Academic Integrity

Students and faculty at UOIT share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education.

Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action. Students are expected to be familiar with UOIT's regulations on Academic Conduct (Section 5.15 of the Academic Calendar) which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to be copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, and other academic offenses. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a written reprimand to permanent expulsion from the university. A lack of familiarity with UOIT's regulations on academic conduct does not constitute a defense against its application.

Further information on academic integrity is available at: www.uoit.ca/EN/academicintegritystudent

12. Turnitin (if applicable)

UOIT and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review to Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents for five academic years. The faculty member may require students to submit their assignments electronically to Turnitin.com or the faculty member may submit questionable text on behalf of a student. The terms that apply to UOIT's use of the Turnitin.com service are described on the Turnitin.com website.

At the time the work is assigned, students must inform their professors that they are not giving permission to have their work submitted to Turnitin.com AND sign the Turnitin.com Assignment Cover sheet at:

<http://www.uoit.ca/assets/Academic~Integrity~Site/Forms/Assignment%20Cover%20sheet.pdf>

Further information about Turnitin, under Resources on the Academic Integrity link on your laptop.

13. Final Examinations (if applicable)

Final examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. Student ID cards can be obtained at the Campus ID Services, in G1004 in the Campus Recreation and Wellness Centre.

Students, who through religious obligations are unable to write a final examination when scheduled, will be permitted to write a deferred examination. These students are required to give three week's notice to the faculty concerned and to document the religious obligations involved. Students who miss an exam for medical or compassionate grounds may submit a request for deferral, along with supporting documentation, to the Faculty within five (5) working days after the scheduled writing of the examination.

Further information on final examinations is available at:

[www.uoit.ca/EN/main2/about/14057/14152/Academic Policies and Procedures/Finalexam.html](http://www.uoit.ca/EN/main2/about/14057/14152/Academic_Policies_and_Procedures/Finalexam.html)

14. Course Evaluations

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of UOIT's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates via MyCampus.