Science and Technical Writing

English 104   **Dr. Timothy K. Nixon**
Section 01   **Office: Knutti Hall, Room 216**
CRN: 30558   **(304) 876-5365**
Fall 2006   **tnixon@shepherd.edu**
MWF 12:10 PM – 1:00 PM   **Office Hours: MW 2:00 PM – 4:00 PM,**
Knutti Hall, Room 206   **and by appointment**

Course Description

This course is a research and writing class for students with an interest or major in the physical or natural sciences or technical disciplines. The course focuses on critical reading, thinking, and writing using science and technical texts as a basis for assignments and class discussion. The course also emphasizes computer skills, collaborative writing, and research and presentation methods for the scientific and technical communities. Prerequisite: ENGL 101 (Freshman Composition).

Goals and Objectives

This course will develop students' critical reading, thinking, and writing skills within the context of writing and research conventions for science and technical fields. Students will learn—or exercise their abilities—to develop clear, logical, appropriately structured written documents, free from serious usage/mechanics errors. Students will also receive instruction in science and technical research approaches and in writing research-based documents.

Skills and Outcomes

Essential skills and outcomes to be acquired through this course include:

1. development of the critical reading, analytical, and argumentative skills acquired in English 101, with particular emphasis on discourse in scientific and technical fields;
2. development of critical judgment for discourse in the sciences and in technology;
3. exposure to research methods for the sciences and technology;
4. training in how to synthesize information from multiple sources;
5. familiarity with presenting research, citing sources, and structuring documents based on the conventions of the science and technology fields;
6. ability to employ standard usage for written English;
7. familiarity with basic computer technology, including word processing, spreadsheet, and presentation applications.

Required Text

Lester JD, Lester, JD. The essential guide: Research writing across the disciplines. 3rd ed. New York: Pearson Longman; 2005. 210 p.

Computer Literacy   Because Shepherd University values the importance of computer literacy and because the Department of English values the process of revision and editing in writing, all assignments for Science and Technical Writing, ENGL 104, must be drafted and completed utilizing appropriate computer software. Students must acquire a University computer account and become familiar with Internet use, electronic library research, and word processing—all General Studies basic technology/communication requirements.

Assignments   Comparison/Contrast Paper—12% (2% draft, 6% composition, 4% revision)
Journal Article Summary—12% (2% draft, 6% composition, 4% revision)
Writer Interview—8%
Web Site Analysis—12% (2% draft, 6% composition, 4% revision)
Annotated Bibliography—20% (12% bibliography, 8% revision)
Research Paper—20% (3% draft, 11% composition, 6% revision)
Presentation of Research—8%
Homework—8%

Grading Scale   This course will employ the grading scale recommended by the Department of English and Modern Languages:

A	100 – 90
B	89 – 80
C	79 – 70
D	69 – 60
F	59 – 0

Each assignment will include an explicit grading rubric, so students will know in advance how their work will be evaluated. For additional information on grading criteria, students should consult the Department's web site, particularly the area entitled "Information Concerning Essays for Written English 101 and 102."

Paper Guidelines   All work must be typed and double-spaced. *Everything* in the papers should be double-spaced, including block quotations and the cited references list! Black ink on white paper is customary for scholarly work. Students should use one-inch margins on all four sides of the page and a legible, fairly standard font when preparing their papers. (Examples of acceptable fonts include Times New Roman 12 pt. or Arial 11 pt.) There should not be an extra line between paragraphs, but paragraphs should begin with a half-inch indention. The title of the paper, the student's name, the course title, the instructor's name, and the date should appear on a title page attached to the work, and the paper's title should be repeated in the center, at the top, of the first page of the composition. Students should number all pages except the title page. *The entire package is to be stapled together before being submitted for a grade!* Students should not come to class expecting the instructor to have a stapler for their use. References to all works under consideration and any secondary sources should be documented following CSE conventions, and a cited references list, adhering to the CSE style guide, should be included as part of the paper. Students are encouraged to familiarize themselves with pages 184-89 of *The Essential Guide* and ensure that their papers resemble the example paper before submitting them.

Class Policies

Students are expected to be present, on time, and prepared for discussion whenever the class is scheduled to meet. However, things conflicting with class attendance invariably arise. If there is some extenuating circumstance that prevents the student from attending class, he or she should talk with the instructor before or after class or during his office hours about this matter. Any student who misses more than four (4) class meetings will fail the course.

No late work will be accepted! All drafts, compositions, revisions, and homework must be submitted at the beginning of class on the dates listed below. Absences do not excuse students from submitting work that is due on the day they happen to be away from class. Anything due on a day a student is absent from class should be in the instructor's mailbox ten minutes prior to the start of class or given to the instructor in person before the roll is taken.

Plagiarism is a serious matter and contrary to the ethos of higher education. Students should make every attempt to ensure that their work is original and others' words and ideas are attributed appropriately. The minimum penalty for plagiarism is a failing grade on the assignment. Depending on the offense, plagiarizing may also result in failure of the course or expulsion from the University.

Out of respect for colleagues and the instructor, students are asked to turn off (or leave at home) cell phones and pagers before coming to class.

Students who want to discuss a grade on a paper or assignment should meet with the instructor in his office during office hours or at a mutually agreed upon appointment. The instructor will not discuss grades in the classroom.

Special Note

Any student who may need an accommodation due to a disability should make an appointment to see the instructor during his office hours or at another mutually agreed upon time. This meeting should occur as early in the semester as is possible so the instructor can make appropriate arrangements.

Course Schedule

Listed below are dates associated with readings, homework, and assignments. The class will follow this schedule as closely as possible, but alterations may need to be made during the semester. The abbreviation *EG* alludes to the textbook *The Essential Guide*, and the abbreviation *HW* denotes homework assignments.

<u>Week 1</u>

8/21 (M)   First Day of Classes—Introductions and Distribution of the Syllabus

8/23 (W)   *EG*: "Finding a Scholarly Topic" (pp. 1-8). *HW*: Bring a composition from a former English course to class.

8/25 (F)   *EG*: "The Physical Scientists" and "The Applied Scientists" (pp. 46-47); "Using the Correct Academic Model (Paradigm)" (pp. 73, 77-79); "Academic Style in the Physical and Medical Sciences" (pp. 105-06).

<u>Week 2</u>

8/28 (M) *EG*: "Library Research" (pp. 14-31); "Finding and Reading the Best Sources" (pp. 65-72). The class for today will be held in Scarborough Library; all students should meet promptly at 12:10 inside the front door of the Library.

8/30 (W) **Due: Draft—Comparison/Contrast Paper.** Peer review session. *EG*: "CSE Style for the Natural and Applied Sciences" (pp. 181-89). *HW*: Bring a photocopy of an article from a periodical, ensuring all of the publication information is included.

9/1 (F) **Due: Comparison/Contrast Paper.** Workshop on summarizing.

<u>Week 3</u>

9/4 (M) *No Class—Labor Day Holiday!*

9/6 (W) *EG*: "Revising the Rough Draft" (pp. 118-20). *HW*: Read the handout on revision before coming to class. Workshop on revision.

9/8 (F) **Due: Revision—Comparison/Contrast Paper.** *EG*: "Writing Effective Notes" (pp. 84-102). Workshop on paraphrasing vs. summarizing.

<u>Week 4</u>

9/11 (M) *EG*: "Drafting the Paper in an Academic Style" (pp. 103-18).

9/13 (W) **Due: Draft—Journal Article Summary.** Peer review session.

9/15 (F) **Due: Journal Article Summary.** Workshop on grammar/mechanics.

<u>Week 5</u>

9/18 (M) *EG*: "Searching the World Wide Web" (pp. 32-45).

9/20 (W) *EG* (Review): "Evaluating a Source" (pp. 71-72). *HW*: Look up entries on a research topic of your choice on Wikipedia, MSN Encarta, and Encyclopedia Britannica's online service. For each of these, list the author of the entry, his or her affiliation, the date the entry was posted, and the name of the editor of the site or collection of entries. Bring copies of the entries to class, if they're not too long.

9/22 (F) **Due: Revision—Journal Article Summary.** Workshop on grammar/mechanics.

<u>Week 6</u>

9/25 (M) *EG*: "Organizing Ideas and Setting Goals" (pp. 73-83).

9/27 (W) **Due: Writer Interview.**

9/29 (F) TBD.

<u>Week 7</u>

10/2 (M) **Due: Draft—Web Site Analysis.** Peer review session.

10/4 (W) **Due: Web Site Analysis.** TBD.

10/6 (F) The class for today will be held in Scarborough Library; all students should meet promptly at 12:10 inside the front door of the Library.

<u>Week 8</u>

10/9 (M)   *EG* (Review): "Use the Summary to Write an Annotated Bibliography" (p. 90) and "Using Your Notes to Write an Annotated Bibliography" (pp. 92-94).

10/11 (W)   **Due: Revision—Web Site Analysis.** TBD.

10/13 (F)   *EG* (Review): "CSE Style for the Natural and Applied Sciences" (pp. 181-89). *HW*: Bring two items that will be included in your Annotated Bibliography to class. Photo-copies or printouts of the items are acceptable, as long as all publication information is included. Workshop on CSE-style references.

<u>Week 9</u>

10/16 (M)   *EG*: "Field Research: Collecting Data Outside the Library" (pp. 46-54).

10/18 (W)   *EG*: "Glossary of Manuscript Style" (pp. 196-202).

10/20 (F)   TBD.

<u>Week 10</u>

10/23 (M)   **Due: Annotated Bibliography.**

10/25 (W)   *EG*: "Understanding and Avoiding Plagiarism" (pp. 55-64). Workshop on integrating others' words and ideas.

10/27 (F)   *No Class!*

<u>Week 11</u>

10/30 (M)   Conferences.

11/1 (W)   Conferences.

11/3 (F)   Conferences.

<u>Week 12</u>

11/6 (M)   *EG*: "Writing a Thesis, Enthymeme, or Hypothesis" (pp. 8-11); "Focusing Your Argument" (pp. 106-09). *HW*: Bring to class the hypothesis you have formulated for your research project. Workshop on hypotheses.

11/8 (W)   Workshop on hypotheses.

11/10 (F)   TBD.

<u>Week 13</u>

11/13 (M)   **Due: Draft—Research Paper.** Peer review session.

11/15 (W)   TBD.

11/17 (F)   **Due: Research Paper.** *EG*: "Preparing Electronic Research Projects" (pp. 190-95).

<u>Week 14</u>

11/20 (M)   *No Class—Thanksgiving Holiday!*

11/22 (W)   *No Class—Thanksgiving Holiday!*

11/24 (F)   *No Class—Thanksgiving Holiday!*

<u>Week 15</u>

11/27 (M) Presentations.

11/29 (W) Presentations.

12/1 (F) Presentations.

<u>Week 16</u>

12/4 (M) Presentations.

12/6 (W) Presentations.

12/8 (F) **Due: Revision—Annotated Bibliography.** Presentations and course wrap-up.