

POP GOES THE WEASEL: SCIENCE AND TECHNOLOGY EVOLUTION

SYLLABUS

Course expectations and grading criteria

Reading assignments – should read not later than the day prior to the class day. There 'may' be a pop quizz at the beginning of class on the assigned reading (including prior assigned reading).

Writing assignments – we will have several short writing assignments through the quarter (1-2 pages) that will normally be due the next class period. Late submissions will not be tolerated and will be penalized 33% per day including weekends. Emphasis will be placed equally on content, spelling, grammar and format. The final exam will be a 5-10 page group project term paper where the group will do the research together, but each member must write their own original paper (topics TBA).

Attendance - is mandatory (including assigned outside lectures/activities). Your final grade will be reduced down a grade for every two missed classes (ie., A to A⁺, etc.) Excused absences are rarely granted and must be approved in advance (except for documented health or family emergencies).. Students arriving more than 5 minutes late will be considered absent for the day.

Group presentations – a major part of the 'seminar' nature of the course will be cooperative learning group presentations, where there will be a moderator and usually a pro- and con- viewpoint. Group presentations will be graded on the basis of understanding the material, content, and convincing arguments. While the evaluation will be based on how well the group performed, we will also include two peer evaluations during the quarter. Your attendance and participation with your group is essential.

Grading:

Short papers (6 total)	20%
Group presentations	30%
Peer evaluations	05%
Pop quizzes (worksheets)	15%
<u>Term paper</u>	<u>30%</u>
TOTAL	100%

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CLASS SCHEDULE

WEEK

M, Sept 10	Course Objectives, Expectations, Reading/Writing Assignments, Grading. Discussion of the History of Modern Science and the Industrial Revolution
W, Sept 12	Selective Background Leading to the Discovery of Seventeen Chemical Compounds That Changed the History of Mankind..... <u>NAPOLEON'S BUTTONS</u>
M, Sept 17	Selection of Teams to Prepare a Presentation on a Selected Chemical Compound. Discussion of Presentation Content and Process
W, Sept 19	Selection of Teams to Prepare a Pro and Con Presentation on Selected Environmental Issues.... <u>TAKING SIDES</u>
M, Sept 24	Guest Speaker: Discuss the Impact of Nobel Prize Discoveries in Biochemistry and Medicine on Society Followed by Group Discussion
W, Sept 26	First Presentation on Selected Chemical Compound Followed by Group Discussion
M, Oct 1	First Presentation on Clashing Views of Selected Environmental Issue Followed by Group Discussion
W, Oct 3	Second Presentation on Selected Chemical Compound Followed by Group Discussion
M, Oct 8	Second Presentation on Pros and Cons of Selected Environmental Issue Followed by Group Discussion
W, Oct 10	Guest Speaker: Stress and Time Management: Group Discussion
M, Oct 15	Third Presentation on Selected Chemical Compound Followed by Group Discussion
W, Oct 17	Third Presentation on Pros and Cons of Selected Environmental Issue Followed by Group Discussion
M, Oct 22	Fourth Presentation on Selected Chemical Compound Followed by Group Discussion
W, Oct 24	Fourth Presentation on Pros and Cons of Selected Environmental Issue Followed By Group Discussion
M, Oct 29	Guest Speaker: Internships and the Career Center Followed by Group Discussion
W, Oct 31	Fifth Presentation on Selected Chemical Compound Followed by Group Discussion
M, Nov 5	Fifth Presentation on Pros and Cons of Selected Environmental Issue Followed by Group Discussion
W, Nov 7	Term Paper Presentations by Teams
M, Nov 12	Term Paper Presentations by Teams Continued
W, Nov 14	Term Paper Presentations by Teams Continued and Summary Discussions

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Napoleon's Buttons Candidates:

Ascorbic Acid

Nitro Compounds

Silk and Nylon

Morphine, Nicotine, and Caffeine

Phenol

Wonder Drugs

Taking Sides Candidates:

Energy Issues

.....open to oil drilling?

.....our fossil-fuel addition?

Food and Population

.....falling birth rates.....

.....genetic engineering the.....

Toxic Chemicals

.....should DDT be...

.....hormone mimics.....

Cooperative Learning Group Presentations – from *Taking Sides*

1. Each group fills in a worksheet during the class period preceding the presentation day – this is turned in and graded as a group. We will assess 25 pts, (pop quiz category) scaled to 15% weighting at the end of the course.
2. Group roles: each person takes on the role of **Moderator**, *Pro* and *Con*. You should rotate these duties for the next Group Presentation. We will try to do all Group Presentations in one class period (see Revised Syllabus).
3. Moderator: is the MC, who introduces the subject and then later asks two questions to each member of his/her group - of course, this was 'rehearsed' in advance. The Moderator will also briefly present the relevance of this topic to a Nobel Prize (this may require some internet/library searching.) At the end, the Moderator asks the gallery of spectators if they have any questions.
4. Pro summarizes any relevant supporting material from the essay, especially that which supports the key pro argument.
5. Con summarizes any relevant supporting material from the essay, especially that which supports his/her the key pro argument
6. Format of presentation: can be blackboard, handouts, Powerpoint, movie, nothing or whatever.
7. Maximum time: strictly enforced = 30 min. (+ up to 5 min. for questions).
8. Grading: We will assess 50 pts, group presentations category, scaled to 30% weighting at the end of the course. It will be evaluated on the basis of:

Content/Knowledge of Material	(20 pts)
Relevance/Excitement/Persuasiveness	(20 pts)
Format-clarity, outline/visual aids – if any	(10 pts)
9. There will also be two Peer Evaluations conducted during the course (worth 5% of your grade).

Format for Term Paper

The final exam will be a 5-10 page group project term paper where the group will do the research together, but each member must write their own original paper. The term paper represents 30% of your grade, comprise of the group oral presentation and individual paper.

1. Length: 5 (minimum) to 10 pages (maximum) - excluding title page, works cited, tables and figures; may include up to one-half page of Works Cited.

2. Font: Times Roman 12 pt or Arial 11pt; Margins: **1 inch all around** (note that the Word default is 1.25" not 1.00").

3. Style: variable – your choice

4. Level: should be aimed at advanced undergraduate readers who are nevertheless unfamiliar with the level of material. Try to explain it at a lay person's level

5. Reference and citation format:

Citations in the text should be either a number (1); or Author, year (Anderson et al, 1999).

References in the Works Cited/References should include full titles and page numbers.

6. Internet references: No more than 1/3 of your references may be from internet sources; The remainder **MUST** be from library print sources (books, journals, or newspaper articles). If you paraphrase material from an outside source, please be sure to reference it, otherwise you will be committing plagiarism.

7. Deadline Friday, Nov. 14 Term paper deadline: 4PM Olin 204. Late submissions will not be tolerated and will be penalized 33% per day including weekends.

8. GRADING: Emphasis will be placed equally on content, spelling, grammar and format. Identical sections and phrases in papers of group members will be severely penalized as not representing original writing (ie., plagiarism)

9. Help is always available. This is YOUR project and we hope that you will learn a lot. Have fun!