Chemistry 4101:
Chemistry Literature Seminar
McMurry University
Spring 2004

Professor:
Paul S. Pyenta, PhD
Science 216
ppyenta@mcm.edu
(325) 793-3880

Office Hours:
MTWRF 9:00 – 10:00
MWF 1:00 – 2:00

"Meaningless! Meaningless!" says the Teacher.
"Utterly meaningless! Everything is meaningless."
[Ecclesiastes 1:2]

Prerequisites:
• Junior or senior
• or permission by instructor

Course Objectives:
This course is designed to develop written and oral communication skills. Students select a current topic in the field of chemistry, conduct a literature search, submit a paper written in scientific review format, and give an oral presentation to their peers. Work is carried out under the guidance of a faculty member. This is an experience-enriched course and the capstone course for Chemistry.

Course Organization:
This course is a guided independent study. We will meet only a few times; the student is expected to diligently work on course material on his/her own. The goal of this course is to:
1. select an appropriate research topic
2. do a literature search and collect professional scientific information concerning your topic
3. write a publication-grade review article about your topic
4. compile and present your topic before an audience

Meeting times will be arranged.

We will initially meet a few times to discuss the course and get students started on choosing a topic and conducting a literature search on that topic. Much of the remaining class will be done on Blackboard in open discussions, including the peer reviews. Assignments will be submitted as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rough written draft</td>
<td>electronically AND hardcopy</td>
</tr>
<tr>
<td>Final paper</td>
<td>electronically AND hardcopy</td>
</tr>
<tr>
<td>Presentation</td>
<td>presented AND electronically</td>
</tr>
<tr>
<td>Practice presentation</td>
<td>not submitted</td>
</tr>
</tbody>
</table>
Content: • Topic paper – should be publication grade and be written in a style consistent with review papers in professional journals. The topic must be specifically and directly from either chemistry or biochemistry. There should be approximately 20 to 30 referenced sources, especially primary papers from professional journals, used and cited correctly in your paper. A sample or two of review papers will be posted on Blackboard for your reference.

• Presentation – must be done with PowerPoint and cover the same topic as your written paper. Presentations should be approximately 30 minutes in length, not including questions and answers.

• Practice presentation – must be done using PowerPoint on some “silly topic” different than that of your main paper. Although the topic should be silly (e.g. how to make a peanut butter and jelly sandwich), your presentation should be serious. The goal of the practice presentation is to critique your presentation style and use of PowerPoint.

Course Schedule: First 3 to 5 meetings Discuss course organization
Jan 30 Learn how to conduct a literature search
Feb 20 Select preliminary topic
Mar 05 Literature search complete on final topic
Mar 26 Rough written draft due
Mar 26 Peer reviews due – blackboard discussions
Apr 16 Practice presentation
Apr 23 Final written paper due
TBA Final presentation

Attendance: Attendance is mandatory at all course meetings. This is especially important because we will meet only a few times. After that, each student conducts the course as a guided individual study. Attendance is also mandatory at the student presentations at the end of the semester.

Grading: Course grades will be computed according to the following percentages:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Paper</td>
<td>40%</td>
</tr>
<tr>
<td>PowerPoint Presentation</td>
<td>30%</td>
</tr>
<tr>
<td>Practice Presentation</td>
<td>5%</td>
</tr>
<tr>
<td>Peer Review Participation</td>
<td>10%</td>
</tr>
</tbody>
</table>

Deadlines (lose 1% for each day late):

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic Selection</td>
<td>5%</td>
</tr>
<tr>
<td>Rough Draft</td>
<td>5%</td>
</tr>
<tr>
<td>Final Draft</td>
<td>5%</td>
</tr>
</tbody>
</table>

Letter grades will be assigned as follows:

100 – 93% A
90 – 92.99% A-
87 – 89.99% B+
83 – 86.00% B
80 – 82.99% B-
77 – 79.99% C+
73 – 76.00% C
70 – 72.99% C-
67 – 69.99% D+
63 – 66.00% D
60 – 62.99% D-
0 – 59.99% F

Note: Raw percentages in an upper level course, especially an independent study course such as this, do not necessarily reflect a student’s earned grade accurately.
Therefore, letter grades will be assigned on a mapped scale which will neither be more stringent than the standard “straight scale” nor will ever lower a student’s score. Final determinations will be made based on overall performance of individual students and of the class as a whole.

Blackboard: All students must enroll in McMurry’s online “Blackboard” and then into this course. Students will find course documents and a simple log of where the class. Also, any class announcements will be made using e-mail via blackboard. Additionally, we will use Blackboard to carry out discussions and peer reviews.

Academic Conduct: As explained in the student handbook, students are expected to conduct themselves in a manner compatible with McMurry University’s function as an educational, church-affiliated institution. Any and all instances of dishonest or disruptive behavior, including cheating and plagiarism, will result in a zero for that assignment, will be reported to the Dean of Student Affairs, and could lead to official action against the student.