

## Chemistry 345 - Junior Chemistry Seminar Fall 2009

### I. General Information

Instructor: **Dr. Brian Lamp**  
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Phone: 785-7251 Internet: [www2.truman.edu/~blamp](http://www2.truman.edu/~blamp)

Schedule: Section 01/02 Mon. 4:30-5:20 PM MG2007

Office Hours: Office hours are posted outside Dr. Lamp's office and on Dr. Lamp's Website. If you are unable to meet during these hours when in need of help, please arrange a time with the instructor IN ADVANCE.

### II. Course Philosophy and Goals

Philosophy: Dissemination of scientific information is critically important for continued advancement of the field. Successful dissemination can save a researcher time and effort in investigating a problem that has already been approached, or may catalyze new, unexplored areas of investigation. Understanding and practicing the communication of scientific information requires knowledge of the theory or methods involved, but also the limitations of these theories/methods. The goal of CHEM 345 is to improve your understanding of the approaches to communicating chemical information, as related to the transfer and creation of knowledge in chemistry. Students will gain experience in the access and analysis of the current chemical literature, as well as in examining the limitations and potential of current methods for dissemination of chemical research information.

Course Goals: Each student in class is required to research and present a fifteen-minute formal talk on a chemical topic. The main sources for your information will be the primary and perhaps secondary literature (technical journals and review articles). Your presentation will focus on the work described in an article that has appeared in print in the last ten calendar years (1999 - 2009). In addition each student is required to attend the presentations given by their classmates and provide written feedback on those talks.

Academic Integrity: Students are expected to abide by the Truman State University Student Conduct Code and complete their coursework using their original words and ideas and properly cite the words and ideas of others. Students caught committing an act of academic misconduct will be subject to the full range of penalties, including failing the course. In every case, the Dean of Student Affairs office and the Vice President for Academic Affairs will be notified.

### III. Required Materials

Textbook: No textbook is required. Handouts and online reading assignments will be given.

#### IV. Course Content

- “Lecture”: The lecture portion of the course will explore the resources necessary to provide background information and prepare presentations. Both oral and written approaches to the communication of scientific information will be explored, with emphasis on oral presentations.
- Student Talks: A major portion of the course grade is the preparation and dissemination of an oral presentation of a topic taken from the recent chemical literature. In preparing this presentation, you will be required to interpret current research articles, and relate this information to your peers. In making your presentation, and in listening to the presentations of others, you will be able to explore the potential of the scientific communication process and better understand the mechanisms and limitations of this process. In addition, you will be allowed the opportunity to expand your knowledge of current chemistry.
- Attendance etc.: It is expected that everyone will attend class and participate. Roll will regularly be taken. Attendance records are a factor in determining borderline grades at the end of the semester.
- Cell Phones/Pagers: Unless you are an emergency responder, all cell phones must be turned off and stored while in lecture. Failure to do so will result in dismissal from the class session. This will minimize disruption during class and help to maintain Dr. Lamp's good humor!

#### V. Student Presentations

- Choice of topics: Your talk must be about chemistry. It must focus on the work described in a paper published in the last ten calendar years (1999-2009). The talk should be targeted towards a chemically literate audience (aim it at your peers). The talk may also cover other issues, but chemistry must be central to the talk and the information that you present to the audience must include aspects such as chemical reactions, chemical instrumentation, chemical theory, etc. You should feel free and expect to use other literature sources to supplement your understanding of your primary article.  
*You may not give your presentation on research that you are currently doing or have recently carried out.*
- Time: Your presentation should be 12-15 minutes long. This will leave a few minutes for questions. Talks that are significantly longer or shorter than this will be penalized.
- Visual Aids: The use of computer presentation software, such as PowerPoint, is required. You will not be allowed to give a simple standup talk or a simple chalk talk. The instructor will provide basic instructions on how to use PowerPoint as needed.

Deadlines: **Your choice of topic is due by noon Wednesday, Sept. 16. A one-page outline of your talk, and a copy of the primary reference** are due in class **two weeks** before you give your presentation. No late work will be accepted. All topics must be approved by the instructor and will be approved on a first come basis. You may avoid grading penalties by discussing your ideas with the instructor before the deadline for the submission of your topic. A **complete abstract** for your talk is due in class **one week** before your presentation, so that it may be posted for your classmates' preparation. Again, no late work will be accepted. Additional details are available on the instructor's website.

Style: This talk should be given as if you were presenting the information at a regional or national meeting of a scientific society or to your colleagues in industry. It should not be presented as if you are simply having a conversation with twenty friends.

Evaluation: Evaluation of each presentation will be based on the following criteria.

1. Presentation: This refers to the organization and focus of the talk. A reviewer might ask himself or herself the questions, "How easy was it to follow the presentation?" and "Does it appear that the presenter rehearsed well enough?"
2. Knowledge of Topic/Degree of Difficulty: The student making the presentation should be able to demonstrate that s/he has a clear and appropriate understanding of the material being presented.
3. Interest Level: This refers to the degree to which the presenter is able to maintain the interest of the audience.
4. Visual Aids: All visual aids should be readable, clean, and accurate. If they can be organized in a visually interesting way, they should be. Has the presenter chosen the "best" method: graphical, textual, or verbal for relating the information?

## VI. Grading

Late Hand-ins: **No late work will be accepted.** All assignments will be given a specific deadline, anything turned in after the deadline will earn a score of zero.

Grade point breakdown: Letter grades will be determined based on the percentage derived from the breakdown shown below.

Source	Total Points
<b>Talk Preparation</b>	<b>60 points total</b>
Submission and Choice of Topic	20 points
Outline and Article	20 points
Abstract	20 points
<b>Presentation</b>	<b>100 points total</b>
Student Evaluations	50 points
Instructor Evaluation	50 points
<b>Attendance/Participation</b>	<b>50 points total</b>
<b>Total points</b>	<b>210 points</b>

Grading Scale: Awarding of final class grades will be based on the scale below. Percentages will be computed on the basis of total possible points for the semester.

<u>Grade</u>	<u>Percentage</u>
A	90.0-100
B	80.0-89.9
C	70.0-79.9
D	60.0-69.9
F	<60.0

*I reserve the right to lower the grading scale, but it will never be raised.*

## VII. Class Calendar

<u>Tentative Class Schedule:</u>	<u>Date</u>	<u>Topic</u>	<u>Date</u>	<u>Topic</u>
	Aug. 31	Nuts and Bolts/ The Chemical Literature	Oct. 26	Student Presentations
	Sept. 7	No Class	<u>Oct. 28*</u>	<i>Student Presentations*</i>
	Sept. 14	Searching the Literature	Nov. 2	Student Presentations
	Sept. 21	The Scientific Paper	Nov. 9	Student Presentations
	Sept. 28	The Perfect Presentation	Nov. 16	Student Presentations
	Oct. 5	Preparing for Meetings, etc.	Nov. 23	No Class
	Oct. 12	Student Presentations	Nov. 30	Student Presentations
	Oct. 19	Student Presentations	Dec. 7	Student Presentations
			Dec. 14	Finals Week

**\*To accommodate the large number of students in class, we will hold one set of presentations on Wednesday, October 28 in MG2090, beginning at a time TBA (~4:00)**

## VIII. Other Information

- Do not procrastinate!!! Waiting until the night before your presentation to prepare will guarantee a poor grade!
- As a student, feel welcome to invite faculty members to attend your presentation. Many of us enjoy learning new things that you may present.
- Please remember that attendance is required and to take the evaluation of others' presentations seriously.
- Any student who has a disability that may prevent him/her from fully participating in the class lecture and lab activities must contact the instructor in person as soon as possible to work out solutions to the difficulty. If you have a documented disability, contact the Student Affairs Office immediately to ensure that your needs are properly met. If no contact is made, no concessions will be considered.

***"I wish people who have trouble communicating would just shut up."***

***- Tom Lehrer, American Humorist***

