

# Fall 2017 Chemical Literature Seminar CHEMISTRY 5100 (1 hr)

Thursday, 8:00-9:20

Room 101 CFS

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Office hours (tentative – listen in class for any changes):

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TuTh 10:00am-10:45am; Tu 3:30pm-4:00pm; Other hours by appt

Chemistry 5100 is a seminar course in chemistry.

Course Objectives: To develop specific skills needed by scientific professionals in the field of chemistry. To develop skills in expressing descriptions of scientific experimentation orally and in writing.

1. Attendance and timely arrival to our class is mandatory for students enrolled in the course. Students who are late 2 or more times or miss class may have their course grade lowered.

2. All students enrolled in this course are required to present a 15-20 minute seminar on a peer-reviewed research paper available in the scientific literature or on their on-going scientific research. The subject may come from any field of chemistry (analytical, biochemical, environmental, forensic, inorganic, organic, or physical). For first semester graduate students (only) presenting either a paper or your research is acceptable. For graduate students beyond the first semester, the presentation must center on your on-going research.

3. For a literature presentation, the paper will be selected from the current literature (journals) and submitted for approval to Dr. Haines at least 2 weeks prior to the presentation date (doing this earlier is highly recommended). Students presenting their own research must inform the instructor 2 weeks prior to their talk of their topic and title. Literature **review articles** are not acceptable. The stipulation that it must be a peer-reviewed journal is sometimes difficult. Please contact your instructor well in advance if you have any questions about determining which journals are peer-reviewed. Presentation dates will be chosen on the first day of class. Students presenting at a scientific meeting that semester have priority for earlier presentation dates. Contact a faculty member in your field of interest if you need help selecting a paper. **Missing this (2-week pre-check) deadline is the single most common grade lowering error of this course.** Please reread that sentence.

4. A printed and proofed, one paragraph summary of the topic (paper or your research) being posted in the Abstract discussion board in Blackboard by 11 am two days before the day when your presentation is made (either in person or in my department mailbox). Your grade in the course will be one letter grade lower if you do not meet this deadline. If no abstract is available at 11 am one day prior to your presentation day your course grade will be zero. The maximum length of the abstract's body text is limited to 200 words. Footnotes and literature citations are not allowed.

If you're presenting a literature paper, your abstract will be entitled with the paper's title and will include the journal citation (author list, journal name, volume, year, inclusive page numbers), and **your name** as presenter above the abstract you write. Pay attention to the format for the literature citation below. Note that the journal abbreviation is italicized; the year is bold, etc. Do not list the company or school affiliations, or degrees (Ph.D. , Dr. , BS., etc) of the authors.

Examples:

**Make sure the literature citation ends with a period.**

For instance: Smith, S.; Jones, T.; Docent, G., *J. Chem. Phys.* **2010**, 34, 123-126.

If the article you're using is an article in press the citation becomes: Smith, S.;

Jones, T.; Docent, G., *J. Chem. Phys.* **2011**, in press.

If the article you're using is a e-citation it should formatted like this:

Monrás, J.P.; Díaz, V.; Bravo, D.; Montes, R.A.; Chasteen, T.G.; Osorio-Román, I.O.; Vásquez, C.C.; Pérez-Donoso, J.M *PLoS ONE* **2012**, 7, e48657. (Note that this journal name has unusual capitalization.)

An abstract describing your research will have the talk title, your name and the name of your research advisor and any additional workers appropriate. Again, do not include author titles such as Dr. or Ph.D. Example:

Biological interactions of selenium and tellurium: bioprocessing, detection, and toxicity  
Burra, R.; Pradenas, G.A.; Vásquez, C.C.; Chasteen, T.G.

Ask your instructor in advance if there are any questions about this author list.

**For literature presentations, copying sentences from the abstract or body of your journal paper for your summary is not allowed—this is plagiarism. This is very important. Directly copying the writing of others will result in an F in the course. Period. You must learn to succinctly summarize the important points—that you will present—yourself. Reading lots of abstracts and papers will help you to do this. Please ask a faculty member if you need help.**

If you are presenting work from your research group that has already been abstracted and presented elsewhere that's OK but you must write a new abstract yourself with no help from your research advisor. The formal abstract writing exercise is ~15% of this course's grade and so submitting a prewritten abstract from your group is not OK. Read that sentence again.

5. All students in this course are required read the abstract of the scheduled talk before coming to

class. You will post a reply to the abstract in the Blackboard discussion board stating that you read it (these posts are how Dr. Haines will determine that you read each abstract).

**6. Your scientific presentation will include:**

- a. A brief background of the subject
- b. A discussion of the procedures and results of the paper, with the following limitations  
Leave out superfluous details (experimental volumes used, temperatures, instrument model numbers, etc.) unless they're very important. Inclusion of superfluous detail will lose grade points. This is the second most common grade loss.
- c. Conclusions and/or implications based on the results
- d. Include graphic images as a visual aid to the presentation (See PowerPoint section below.)  
Make your images clear—small, poorly labeled graphics are bad. Make the images large enough to be read in the back of a room with 80 seats.  
Don't include anything in a graphic that you don't want to explain—too much detail in a graphic can be confusing to your audience.  
Be consistent in capitalization and spacing, in lists on your slides.  
You may scan figures, tables, and images from your paper if necessary but complex tables should be reduced to include only what is useful to your talk. Digitally cutting images, tables, reactions from your paper's PDF file or from your research data are best.  
Use your graphic images as a means of triggering your verbal presentation. Try not to read directly from your slides nor from index cards if possible.  
Be able to pronounce correctly and clearly all words on every slide—especially chemical terms.  
Make sure you use correct chemical notation (subscripts, superscripts, capitalization, etc.) in all slides and in your article abstract.

**7. Your entire talk must be presented as a PowerPoint presentation.** This requires that you prepare your talk's Microsoft PowerPoint file in advance and check out how it works on a Windows computer prior to the talk. You are responsible for how your presentation displays. CDs you burn yourself or files transported via a disc-on-key (Flash drive, Memory Stick) or network access of your S Drive (if it's healthy) are OK, but talk to Dr. Haines in advance about how you plan to access your PowerPoint file.

**8. If you include data from outside the paper you've chosen, then provide a readable citation at the bottom of the slide where that data is presented. Do not provide a bibliography at the end of your talk.** If you are presenting your own research group's work—some data that are yours and some for others in your group—then you need not provide a citation on slides presenting work from other group members even if you weren't involved in generating that particular data. This is routinely taken care of in the scientific community by including an **acknowledgement slide** at the talk's end that recognizes the

workers that contributed research to your talk if they weren't in the talk's author list.

**9.** Number each slide using PowerPoint's slide numbering feature. This will help your audience quickly refer to specific slides when they ask questions.

**10.** A period of 5 minutes will be allowed for questions from your audience after you finish as well as spontaneous questions from your audience **during** your talk. A request by a speaker for the audience to hold questions (until the speaker has finished) will probably not be heeded.

**11.** Presentations will be evaluated by all students and faculty in attendance (see attached sheet). You are required to pay close attention to the talk that someone else gives and fairly evaluate that talk based on the categories on the evaluation sheet. The members of the audience will be evaluated by your instructor as to their attentiveness and ability to **ask questions of the presenter**. If you do not ask questions week after week you will be called upon to ask a question. If this occurs repeatedly then your course grade will suffer.

**12.** A bit about Digital Object Identifier (DOI; see [www.doi.org](http://www.doi.org)). A DOI address in the case of scientific publications are used to allow access to digitally available documents with one address no matter where the publisher stores the file. Once a paper has been accepted for publications—following the peer review process— a DOI address is assigned and once that address is published—it's usually sent to the authors as soon as it becomes available—submitting that address to the DOI server (example: <http://dx.doi.org/10.1371/journal.pone.0048657>) will send you to at least the abstract of the document and often to a digital version of the entire document. That DOI example is for the last citation e journal example shown above; however, DOI address are not limited to e journals only. Almost all modern scientific publications have DOI addresses.

## Course Grading Rubric

You will receive the highest grade for which Dr. Haines determines you meet ***all*** the requirements:

Grade	<u>Presentation</u>	<u>Abstract</u>	<u>Abstract Reading</u>	<u>Feedback and Self-Evaluation</u>	<u>Disc. Particip.</u>
A	Presentation was of good quality, met time requirements, and was organized. Little to no reliance on notes. Slides contained no more than a few minor grammar or style issues.	Abstract submitted on time, with appropriate summary of presentation; free or nearly free of grammar and style issues and with only very minor deviation from proper citation format.	Read all or all except one of the abstracts posted (as measured by posts stating abstract was read) prior to class.	Feedback given was useful and followed appropriate etiquette; Presentations would be expected to improve given this feedback. Self-evaluation was completed, appropriate, and on-time.	Student asked meaningful questions on at least three occasions during the semester. No more than two unexcused absences.
B	Presentation was of fair quality, was close to meeting time requirements, and was at least somewhat organized. May have some reliance on notes. Slides contained no more than a few grammar or style issues.	Abstract submitted, but may not have been on time, with appropriate summary of presentation with only minor grammar and style issues and with minimal deviations from proper citation format.	Read all except two of the abstracts posted (as measured by posts stating abstract was read) prior to class.	Feedback on presentations was usually useful and generally followed appropriate etiquette. Self-evaluation was completed and appropriate but turned in late.	Student asked meaningful questions on at least two occasions during the semester. No more than three unexcused absences.
C	Presentation was acceptable but had some significant problems, may have had significant timing or organization issues. May have heavy reliance on notes. Slides contained grammar or style issues.	Abstract submitted, but may not have been on time. Grammar and style issues found or significant deviations from proper citation format.	Read all except three of the abstracts posted (as measured by posts stating abstract was read) prior to class.	Feedback given was only somewhat useful, or lacked appropriateness (mean-spirited, etc.). Self-evaluation was completed but not appropriate quality and/or was late.	Student asked meaningful questions on at least one occasion during the semester. No more than three unexcused absences.
F	Presentation was unacceptable; may have had major timing or organization issues. Slides contained major grammar or style issues.	Abstract not submitted.	Failed to read enough posted abstracts prior to class.	Feedback given was of no use or lacked appropriateness (mean-spirited, etc.). Self-evaluation not completed.	Student did not participate in class discussions or had more than four unexcused absences.

The Speaker's Name \_\_\_\_\_

Give careful consideration to the following points about the seminar you have just heard and rate the points accordingly. You may take notes during the seminar that you want the presenter to read later. For the following, provide a rating using a scale of 1 to 5 with 5 being the highest rating. Space is left for comments which are encouraged. Add up your points for the final evaluation score.

1. The abstract, which you were required to read, was a clear summary of the material presented in this seminar. It mentioned the important points of the research and the results. The abstract's citation format was correct. *(This is the fifth most common point loss.)* \_\_\_\_\_

**Example comment:** *Short and sweet, but results mentioned in the abstract weren't mentioned in the talk.* \_\_\_\_\_

2. The speaker seemed to be familiar with the material and understood what the paper or research being presented was about. \_\_\_\_\_

**Example comment:** *You have clearly mastered this material.*

3. The speaker was able to distinguish the major ideas of the seminar from the supporting material: Superfluous minute details were not unnecessarily presented and important details were included. *(This is the second most common point loss.)* \_\_\_\_\_

**Example comment:** *You focused on the volume of glassware you used, solution temperatures, and times that samples were mixed. These are superfluous details and should have been left out.*

4. The speaker spoke clearly and distinctly and pronounced technical terms correctly. \_\_\_\_\_

**Example comment:** *Your voice was loud and clear, but you stumbled over important scientific terms. Next time you might practice these terms more in advance.*

5. The speaker's presentation materials were clear and useful for the presentation; writing was large enough and graphs were easily read. External material was correctly referenced. *(This is the third most common point loss.)* \_\_\_\_\_

**Example comment:** *The background was clear but many of the plots had axis labels that couldn't be easily read. Next time you might err on the side of too large, instead of too small.*

6. The speaker answered questions well. *(This is the fourth most common point loss.)* \_\_\_\_\_

**Example comment:** *Your answers were clear and to the point. Best of all when you didn't know a complex answer you admitted it and suggested where the answer could be found.*

7. Your overall evaluation of the seminar. (Add all your points from above.)