

# Chemistry 3443: Organic Chemistry I, Fall 2012

- Instructor:** Prof. Luis M. Campos  
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Office hours: Friday 4-5 pm, 320 Havemeyer (unless otherwise noted)
- Teaching Assistants:** Helen Tran ([ht2321@columbia.edu](mailto:ht2321@columbia.edu)), office hours: Thu 7-8 pm (H 343)  
Miguel Jimenez ([mj2457@columbia.edu](mailto:mj2457@columbia.edu)), office hours: Mon 9-10 am (H 343)  
Michael Gaschler ([mmg2188@columbia.edu](mailto:mmg2188@columbia.edu)), office hours: Wed 3-4 pm (H 343)
- Location & time:** 309 Havemeyer, T/R 2:40 pm-3:55 pm
- Textbook:** Required - *Organic Chemistry*, 8<sup>th</sup> Edition. John McMurry.
- Reading:** Although McMurry's textbook is assigned for the course, much of the information on essential material will be covered in class. Students will be expected to learn the basics of organic chemistry from the lectures, recitation, and assigned readings from the text.
- Topics:** Structure and bonding. Polar covalent bonds, acids and bases. Alkanes and their stereochemistry. Cycloalkanes and their stereochemistry. Stereochemistry. Structure determination: infrared spectroscopy and nuclear magnetic resonance spectroscopy. Overview of organic reactions. Alkenes: structure, reactivity, reactions, and synthesis. Alkynes. Organohalides. Nucleophilic substitution.

## Evaluation:

<i>Date</i>	<i>In class</i>	<i>Date</i>	<i>In recitation</i>
September 25:	Exam 1 (1 hr)	Week of September 17:	Quiz 1
October 16:	Exam 2 (1 hr)	Week of October 1:	Quiz 2
November 8:	Exam 3 (1 hr)	Week of October 8:	Quiz 3
December 4:	Exam 4 (1 hr)	Week of October 22:	Quiz 4
TBA:	Final Examination (2 hr)	Week of October 29:	Quiz 5
		Week of November 12:	Quiz 6
		Week of November 26:	Quiz 7

Quizzes total **1 hr** of evaluation (drop 2).

There are a total of 7 hours of examination (4 exams, 1 cumulative final, and quizzes). Your final grade will be based on the best 5 hours of examination, each hour consisting of 20% of your grade. *There will be no make-up exams or quizzes!! EVER!!* Re-grade requests must be submitted to the Chemistry Department's Undergraduate Office (340 Havemayer) *no later than one week* after the exam.

You must register for one of the sections of recitation. All quizzes will be given in recitation. The quizzes will cover topics discussed in both class and recitation. They will last for 10 minutes. *There are no make-up quizzes, but the lowest 2 quizzes will be dropped.* Homework problems will be issued, but not graded. It is your responsibility to practice Organic Chemistry outside of class and recitation.

*Extra credit:* Who says that organic chemistry class can't be fun? For extra credit, the assignment is to make a 2-3 minute music video about organic chemistry. The assignment was inspired by Professor Neil Garg's class at UCLA. We have adopted the same guidelines (see below) so that we can start a friendly competition with our west coast colleagues.

Guidelines (adapted from Professor Garg's class):

- Make a music video about organic chemistry.
- The lyrics should contain mostly technical information about structure, reactions, and/or synthesis, but be sure to mention 'Columbia' and '3443' in your video (either verbally or in writing)!
- Your music video can be completely original or a parody of one of your favorite songs.
- The length should be between **2–3 minutes**.
- No vulgarity or nudity – keep it “PG/PG-13”
- You may work by yourself or in teams of up to 4 people.
- Must submit the video to Luis (youtube link) by: **Thursday, December 6, 2012 at 9 am.**
- E-mail the youtube link to **ochemcampos@gmail.com**
- \*\*\*When submitting your video, please include a list of all of your teammates (full names and CU ID).
- Submission of the video will warrant posting on the 3443 class website and shown in class. That is, once submitted, it will be available for public viewing!

Evaluation of points awarded:

- Luis and the TA's will evaluate the music videos and assign extra credit points (**0 or 7 points**).
- \***The top 2 videos will receive 10 points.**\* Any extra credit points will be applied to your lowest Exam grade of the ones that are not dropped (not the final, not the quizzes).

The top UCLA videos from 2010 can be found here:

[http://www.chem.ucla.edu/14D-S10/14D\\_Rockstar\\_Music\\_Videos.html](http://www.chem.ucla.edu/14D-S10/14D_Rockstar_Music_Videos.html)  
(or google search '14d rockstar')

*-Evaluation criteria include incorporation of organic chemistry, creativity, entertainment factor, and overall quality.*

*-Each person on a given team will receive an identical score. Extra credit points are not negotiable.*

*-The best few videos will be shown in lecture.*

General advice about the videos:

- The bar has been set high by the 2011 Chem 3443 class last Fall, so we will expect big things from you. If you do not have time to make a great video, your time may be better spent studying.
- For the audio, you may wish to use auto-tune software, especially if you are self-conscious about your voice. It is also very helpful to include captioned lyrics in the video.
- Try to use this assignment as an opportunity to study, be creative, and have fun (yes, even in an organic chemistry class!)
- If you want your video to go viral, we recommend trying to reach a broader audience (e.g., pick a popular song) and making your video high quality. “Chemistry Jock”, the top video from 2010's UCLA's Chem 14D class, is a great example: <http://www.youtube.com/watch?v=T3IU0danX6Q>

FAQ about the video:

*–I noticed that you mentioned the extra credit needs to be 2-3 minutes. However, I feel like this is not sufficient time to make a good video about the vast wonders of organic chemistry. Is it all right if it's 5 min?*

If your video exceeds 3 minutes, that may not hurt your extra credit grade...just make sure it is entertaining since 'entertainment factor' is one of the grading criteria. However, if it is too long, I may not be able to show it in class (if it happens to be one of the best videos).

*–I was planning to use my band members, who aren't part of the class, to help me out with the project, and write an original piece? Is that fine?*

Sure, it is definitely OK to have “extras” in your video. They just have to be okay with it being public.

*–Do we actually need to be in the video or can we just sing the track?*

We would like to leave the instructions, “make a music video about organic chemistry”, somewhat open to interpretation. Thus, if you are not in the video, that could be OK. The consensus amongst the teaching team, however, is that it would be best to at least make an appearance in the video if you decide not to star in the entire thing. Just to be clear on the grading, the TAs and I will evaluate each video and assign extra credit points of 0, or 7 to be added to your lowest midterm. If your video is one of the top two, you will receive 10 points. The evaluation criteria include incorporation of organic chemistry, creativity, entertainment factor, and overall quality. If you can meet these criteria without being in the video, you would still get extra credit.

*–For the extra credit video can a person appear in two different group's videos?*

Participating in more than one video is OK. However, you would only receive extra credit for one of the videos. You would have to let me know, in advance (prior to submission), which of the two videos you would like to count for the extra credit.