

Chemistry 101 Fall 2019 Course Guidelines

Instructor: Daniel Graham, Flanner Hall Room 401 (office and voice-mail, 773 508-3169); Loyola Chemistry Office: 773 508-3100; FAX: 773 508-3086; email: dgraha1@luc.edu

Supplemental Instructor (SI): Jessica Bae; email: ybae@luc.edu

DG office and tutoring hours: M, W, Th 3:00 – 4:00 at Mertz Hall STEM Center, or by arrangement.

JB tutoring hours: TBA

Class Meetings: MWF 9:20 – 10:10 AM, Cuneo Hall 109

Discussion Meetings: F 11:30 – 12:20 Flanner Hall 105
F 12:35 – 1:25, Flanner Hall 105

Textbook: *Chemistry, the Central Science*, by Brown, LeMay, Bursten, Murphy, and Woodward, Fourteenth Edition. This text will also be used in Chemistry 102.

The course will cover essential material of Chapters 1 – 10 of our textbook with a brief excursion into the chapter on nuclear chemistry. The topics will include:

1. Matter, measurements, physical and chemical properties.
2. Atomic theory and the elements; molecules, ions, and compounds.
3. Stoichiometry and chemical formulas.
4. Reactions in Aqueous Solution
5. Thermochemistry
6. The electronic and nuclear structure of atoms
7. More electronic structure: periodic law.
8. Chemical bonding and molecular structure.
9. More molecular structure
10. Gas Laws

Exams:

There will be three fifty-minute exams as scheduled. There is also a two-hour cumulative final reserved for Saturday afternoon of finals week. Each exam will consist of questions and problems representative of the textbook, lectures, and discussion meetings. All calculations and discussion will be entered in a standard blue book provided by the instructor. A non-cell-phone calculator, periodic table, and a single page of notes (normal paper, both sides OK) may be used during each exam.

Blue books will need to be signed on the front, upper right-hand corner. Each signature will be taken as a statement of honest, independent work. Instances of academic dishonesty will warrant failure of Chemistry 101 and referral to the Arts and Sciences Dean's office. Please review the College's policy on academic integrity via the Loyola University website.

Exams will be graded and returned as soon as possible. All grading questions, errors, and points of clarification must be brought to DG's attention no later than one week after return of the exam.

If special provisions are needed for the exams and other aspects of Chemistry 101, please consult DG in the first week, and throughout the semester.

Assignment of Grades:

Grades will be assigned by weighting the fifty-minute exams 55%, assignments 10%, and the final exam 35%, with account given to improvement. If the final exam score is greater than the average of the hour-exams, then the lowest hour-exam score is dropped—this is where improvement is valued. If the final exam score is less than the fifty-minute exam average, however, then all fifty-minute exam scores figure into the final grade. Please see the last page for examples of grade computations. The following windows will be used for mid-term and final grade assignments:

A: 88 – 100, A-: 87, B+: 81 – 86, B: 75 – 80, B-: 71 – 74, C+: 67 – 70, C: 60 – 66, C-: 59, D+: 55 – 58, D: 50 – 54, F < 50.

An aim of the grading policy is to allow time and incentive for improvement. Chemistry, languages, violin playing, etc. are not easy to learn, but the processes can be rewarding if necessary efforts are made to master fundamentals as they appear. Students are urged to contact DG and supplemental instructor Jessica Bae to discuss problems before they become serious.

Assignments: Multiple assignments will be based on the textbook and lectures. Students are urged to complete these with the help of each other, DG, and Jessica. Please turn in work on the assignment due-date.

Quizzes: Quizzes will be part of the discussion meetings. Discussion participation plus good-faith completion of each quiz will warrant one point of credit applied to the up-coming exam.

Sakai Materials: There will be multiple postings throughout the semester in the Resources Section. Please check the course website every day or two for the latest additions. Errors should be brought to DG's attention as soon as possible.

Lecture Videos: Lectures will be Panopto-video- and audio-recorded and posted on Sakai. Let us hope the technology cooperates!

Tutoring: There will be tutoring via DG in the science center in Mertz Hall on M, W, and Th afternoons. Note: there may be a few Wednesday faculty council conflicts to be announced and re-scheduled. The student chapter of the American Chemical Society offers tutoring throughout the semester. Times and places will be announced in class. Students are urged to participate in individual and small group discussions so offered by tutoring.

Exam Coaching: There will be chemistry coaching sessions led by DG prior to each exam. Times and places will be worked out and announced.

Advisory Committee: A committee of students will be organized at the start of the semester. The purpose of meetings will be to advise the instructor. Please see DG after the first or second class meeting if you wish to contribute to this committee.

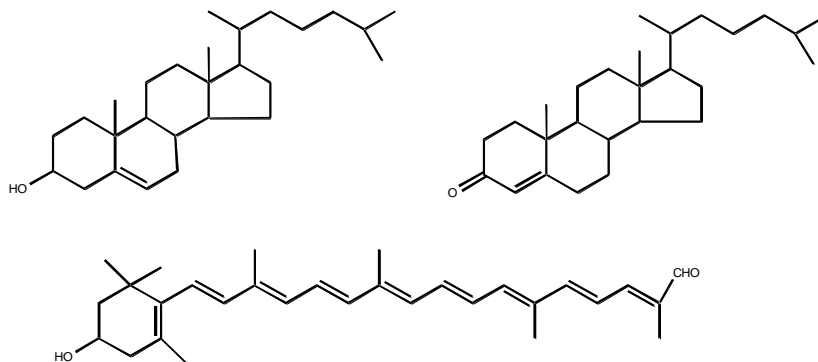
Small-Group Meetings: There will be sign-up dates and times for ten-minute small-group meetings with the instructor. These are informal but important nonetheless. Please sign up at least once during the semester; meet individually, or in groups of two or a few fellow students.

Schedule:

The typical week will feature Monday, Wednesday, and Friday meetings at 9:20 AM. Friday discussions will feature chalk-talks, Q & A, and quizzes.

M 082619 First Class Meeting. We will begin discussing Chapter I.

M	090219	Labor Day Holiday ☺🎵
F	092719	Exam I
M	100719	Fall Break ☺🎵
F	102519	Exam II
F	111519	Exam III
W	112719	Day before Thanksgiving ☺🎵
F	120619	Last Day of Class
S	121419	Final Exam 1:00 – 3:00 PM in Cuneo Hall 109



How to compute grades throughout the semester

1. After exam one, compute:

$$90\% * (\text{exam score}/100) + 10\% * (\text{completed assignments}/\text{total assignments})$$

Example: 82 exam score and four of four assignments completed:

$$90\% * (82/100) + 10\% * (4/4) = 83.8. \text{ This falls in the "B+" window on the syllabus}$$

2. After exam two, compute:

$$90\% * (\text{average of exams one and two}/100) + 10\% * (\text{completed assignments}/\text{total assignments})$$

Example: 72 on exam one, 68 on exam two, and eight of eight assignments completed:

$$90\% * ((72 + 68) / 2) / 100 + 10\% * (8/8) = 73. \text{ This falls in the "B-" window.}$$

The post-exam-two computation will determine the mid-term grade.

3. After exam three, compute:

$$90\% * (\text{average of exams one, two, and three} / 100) + 10\% * (\text{completed assignments}/\text{total assignments})$$

Example: 72 on exam one, 68 on exam two, 82 on exam three and ten of ten assignments completed:

$$90\% * ((72 + 68 + 82) / 3) / 100) + 10\% * (10 / 10) = 76.6. \text{ This falls in the "B" window.}$$

4. After the final exam, there are two scenarios. The first is where the final exam score is greater than the lowest of exams one, two, and three. In this scenario, the lowest fifty-minute exam score is dropped. The top-two fifty-minute exams are weighted 55%, the final exam is weighted 35%, and the assignments are weighted 10%.

Example: 72 on exam one, 68 on exam two, 82 on exam three, twelve of twelve assignments completed, and 90 on the final exam. Here we drop the 68 and compute:

$$35\% * (90/100) + 55\% * ((72 + 82) / 2) / 100) + 10\% * (12 / 12) = 83.8. \text{ This falls in the "B+" window and so determines the final grade.}$$

In the second scenario, the final exam score is less than the fifty-minute exam average. Example: 72 on exam one, 68 on exam two, 82 on exam three, twelve of twelve assignments completed, and 64 on the final exam. One computes:

$$35\% * (64/100) + 55\% * ((72 + 68 + 82) / 3) / 100) + 10\% * (12 / 12) = 73.1. \text{ This falls in the "B-" window and so determines the final grade.}$$

Please consult DG where Qs arise regarding Chemistry 101 grades.