

Chemistry 120

Spring 2008

Course Syllabus

Instructor Sarah Burroughs
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Class Meets MWF, 10:40-12:30, Room 207 Pierce
Office Hours W: 12:30-1:45, or by appointment

Materials

- Introduction to General, Organic, and Biochemistry 8th ed by Bettelheim, Brown, Campbell, and Farrell
- Scientific calculator WITHOUT keyboard
- Lab notebook (carbon copy or composition notebook)
- Safety glasses

Course Description

Chemistry 120 is the second half of the general chemistry course sequence. Either Chemistry 100 or Chemistry 141 is a prerequisite for this course. There are two main groups of students who take this course: pre-nursing students who need it for their chemistry requirement and non-science majors who take it for their GER laboratory science requirement. The course will cover topics in acid/base chemistry, organic chemistry, nutrition, and disease.

The course is being taught in a novel manner this semester – it will be primarily case-based. For each unit there will be cases from either the news media or pop culture. The students will be presented with real-world problems and they will have to master the topic for that unit in order to come up with a solution. The course will not be a simple lecture class – the students will have to participate and work in groups to solve each case. The labs will be integrated into the lecture and will often be the avenue for the students to find their answers.

Course Objectives

Overall, the goal for this course is to demonstrate to students that not only is chemistry pervasive throughout the real world, but that chemistry can be useful, interesting, and fun. This course should provide a connection between chemistry and biology and show the students how the two subjects are intertwined. Students should walk away from the course with greater knowledge and a greater appreciation for chemistry in general. Laboratory sciences are an instrumental part of a liberal arts education.

Attendance

Due to the highly participatory nature of this course, attendance is mandatory. Students may miss up to 3 lecture days with no penalty, but each absence after 3 will result in loss of 3 points from the final grade. There will be no make-up labs, so if a student is absent on a lab day, they will have an extremely hard time finishing the case.

Grading

Grading will follow the +/- grade system:

A	93-100%
A-	90-92%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	73-76%
C-	70-72%
D+	67-69%
D	60-66%
F	below 60

Course Schedule

- Unit 1: Acids/Bases
- Unit 2: Organic Chemistry
- Unit 3: Nucleotides and nucleic acids
- Unit 4: Gene expression and protein synthesis
- Unit 5: Proteins
- Unit 6: Enzymes and Metabolism
- Unit 7: Nutrition
- Unit 8: Diseases