Youngstown State University

Department of Chemistry

Chemistry 1506: Chemistry for the Allied Health Sciences

Date: 8/20/18

Coordinator:

Dr Russell Moser, Ward Beecher Science Hall, Room 6006, Phone: 330-941-7100.

**Office Hours:** See my web site home page. At other times, I am easy to reach by e-mail address on my web site. E-mail is the quickest and easiest way to reach me. You may discuss any issue from problems you can’t solve, to needed encouragement, to requesting an appointment. I check my e-mail several times per day and will respond to you within hours.

 **General Education Requirements**:

Chemistry 1506 satisfies the natural science domain of the GER. In order to receive credit for this class, you must also register for the associated lab, 1506L. The recitation, 1506R, is also required for Chemistry majors and is optional for other majors. This course is designed to enhance your appreciation and understanding of the natural environment and the processes that shape it (goal 13). The course also helps you understand the scientific method by forming and testing hypotheses as well as evaluating results (goal 6). Every effort will be made to extend the class room learning experience to applications in the health care industry.

**Course Overview**:

In 1506 you will be introduced to basics or organic and biochemistry.

Organic chemistry serves as a foundation for understanding biochemistry,

because biochemistry is organic chemistry carried out by living systems. By the end of this course you

* will be able to Identify the major functional groups found in organic molecules.
* Understand how functional groups influence a molecule’s physical and chemical properties. Identify three major classes of biomolecules: carbohydrates, lipids and proteins and understand the different roles of each.
* Understand the function and regulation of enzymes.

Will be able to explain several biochemical pathways by which living organisms extract energy from the food they ingest.

You will find that chemistry 1506 requires a great deal of memorization and organization of information.

Organic and Biochemistry is a qualitative sciences. The calculator that you used in chemistry 1505 will suffice. If you have any doubts about this course or your preparation for it, you are strongly urged to consult me as soon as possible.

On Web Site will be the following:

* Directions for using OWL and Blackboard
* Link to Blackboard for all lecture powerpoint slides

Link to OWL

**Required Supplies**:

 Text: Bettelheim, Frederick, Brown, William, Campbell, Mary, Farrell,

 Shawn and O. Torres. (2016). *Introduction to General, Organic and Biochemistry.*

(11th ed.) Brooks and Cole: Belmont, CA. Bundle 9781285869759.

 OWL Access Card

 Lab: Bettelheim, Frederick and Landesberg, Joseph. *Laboratory*

 *Experiments for General, Organic, and Biochemistry, Special 8th edition*

(2012). Thomson Corporation: Mason, OH.

 Internet Access to my web site and other materials

 Calculator: Your calculator should handle scientific notation.

**Grading**: Chemistry 1506: A,B,C,D,F (4,3,2,1,0 pts respectively). This final grade will represent the tests, examines and laboratory work as shown below. Extra credits will be offered to those who complete the “Student Feedback” questionnaire in the last week of the course. Tests will review material recently covered in class. The final exam will be comprehensive. Final Grades may be assigned on a curve taking into account the strength of the class and the difficulty of the exams. Cut-off points may vary. However, you can secure a certain grade by exceeding the following limits: A= 90%, B=80%, C=70%, D=60%.

| Grading Criteria | Points |
| --- | --- |
| Test 1, 2, 3 | 100 points each |
| OWL on line Homework | 50 points |
| Final Exam | 200 points |
| Laboratory | 100 points |
| Total Points | 650 |

**Makeup Tests will not be given**. Tests are scheduled during regular class time and,

 as such, you are expected to be present. If two tests or the final exam are missed, you will get a failing grade for the semester. Final exam will be given at the scheduled time during finals week

 The final exam is cumulative, i.e. it is based on the entire term. It is worth 200 points toward your overall score. If you final exam, divided by two, is better than you worst exam score, I will substitute the better score before calculating the final grades. Past experience suggests that this helps only a few students so please don’t rely on it. It is much better to be fully prepared for the tests.

**Recommended Study Procedure:**

 Your study habits should be as follows: First, review the syllabus and read the material to be covered in class prior to coming to class. This includes all figures and diagrams. Secondly, take good notes of material covered in class. Third, check your understanding of the first step by reviewing your notes immediately after class.

Your knowledge of chemistry will be largely learned using the online homework and measured by in class tests Online homework will becoordinated with your textbook using OWL. OWL supports mastery learning and offers numerical, chemical and contextual parameterization to

 produce problems correlated to this text. These assignments will be electronically graded and incorporated in your final grade. Solving the online homework problems is how much of your learning will occur; they are meant to guide you in your study and give you practice in preparation for the tests. The problems vary from simple drill to quite difficult. Work

 every problem. In addition, for your personal learning experience, there are optional online problems that will further help you to determine your level of knowledge for the exams.

**Class Attendance and Participation**: Class attendance is not mandatory. I believe that you are all mature men and women who can make your own decisions. I give these words of advice: we will move at a fairly rapid pace so you can quickly fall behind if you do not attend class regularly. This material will overwhelm you not by its difficulty but by the pace at which it comes at you. You must keep up with your reading and, more importantly, with the suggested homework assignments. Attendance will be taken occasionally and may be used to enhance final grades.

**Disability Statement**: *Youngstown State University is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternative format upon request. In accordance with University procedures, if you have a documented disability and require accommodations to obtain equal access in this course, please contact me privately to discuss your specific needs.  You must be registered with the Center for Student Progress Disability Services, located at 275 Fifth Avenue, and provide a letter of accommodation to coordinate reasonable accommodations.  You can reach CSP Disability Services at 330-941-1372.*
**Discrimination:** *Youngstown State University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, gender identity and/or expression, disability, age, religion or veteran/military status in its programs or activities. Please visit* [*www.ysu.edu/ada-accessibility*](http://cms.ysu.edu/accessibility/ada-accessibility-compliance) *for contact information for persons designated to handle questions about this policy.*

**Tutoring**: **You will need additional help with this course.** Time will not permit the working of many problems in lecture. There are three sources of help available.

1. Graduate students are available throughout the day, 5 days per week in Ward Beecher Hall room 5039. There is a posted schedule on the door. Just walk in during the posted hours and ask your questions. They will answer your questions immediately.
2. **Center for Student Progress**
**What:** Academic Coaching, Supplemental Instruction, and Tutoring in a variety of courses
**When:** By appointment.Monday thru Thursday 8:00 am – 6:00 pm, and Friday 8:00 am – 4:00 pm
**Where:** Kilcawley Center West (near Dunkin Donut entrance)
**Email:** blvarian@ysu.edu

**Math Assistance Center**
**What:** Drop-in group tutoring, homework assistance, computers, reviews and formula sheets
**When:** Monday thru Thursday 9:00 am – 6:00 pm, and Friday 9:00 am – 3:00 pm
**Where:** Lincoln Building, room 408
**Email:** mathassist@ysu.edu

**Writing Center**
**What:** Writing consultations for any discipline, Linguistics tutoring, Basic computer literacy
**When**: Monday thru Thursday 9:00 am – 5:00 pm, Friday 10:00 am – 1:00 pm, and Sunday 4:00 – 7:00 pm (appointments or walk-ins)
**Where:** Maag Library, Lower Level, room 171
**Email:** wcenter@ysu.edu
3. 1506 Recitation. Offered on Thursdays 4 PM to 4:50 PM. See Chemistry office for

alternate times. Recitation class will follow the syllabus of the lecture. Your instructor will help you work and understand problems that are assigned online. **I recommend that you take the recitation class.**

**Academic Honesty:** Students will be expected to conduct themselves with the highest
standards of academic integrity. The Code of Student Rights, Responsibilities, and
Conduct defines academic dishonesty as misconduct that includes but is
not limited to cheating and plagiarism as defined in The Code. Academic
dishonesty is a serious violation of University policy that will not be
tolerated in this course and may result in failing the course and/or
suspension or expulsion from the University.