# CHE 103: Chemistry in the Modern World Fall 2016

#### **GENERAL COURSE INFORMATION**

#### **Instructor Information**

Dr. Mary Boyden

Office Hours: After class on most days. Also, by appointments, which are scheduled via e-mail.

Email: mnboyden@syr.edu

Course Website: <a href="http://blackboard.syr.edu">http://blackboard.syr.edu</a>

Chemistry Department Office: CST 1-014 (You may drop off mail and doctor's notes here.)

TA Offices: Life Sciences Building, LSB 122/124 Hours: See http://blackboard.syr.edu for the schedule.

TAs	Email
Elizabeth Cleverdon	ecleverd@syr.edu
Annastacia Stubbs	adstubbs@syr.edu

# **Course Description**

This course is intended for students who are not science majors, and there are no prerequisites for the course. Students will be introduced to chemistry and gain an appreciation of the importance of chemistry in our world today. Topics will include batteries, polymers, and biochemistry. This course will include a laboratory component.

<u>Lecture Class Times and Locations:</u> 2:15-3:35 PM on Mondays and Wednesdays, Maxwell Hall Auditorium

**Laboratory Location**: Life Sciences Building, Room 103

### **Textbook and Supporting Materials**

- Chemistry for Changing Times, 14<sup>th</sup> Edition by John W. Hill and Terry W. McCreary (paper or etext)
- Simple calculator
- Turning Point subscription for Clicker or App (optional but recommended)

# If you are having difficulty with this course:

The teaching assistants (TAs) for this course hold office hours in Life Science Building. You may attend the office hours of <u>any</u> CHE 103 TA to obtain help. The most up-to-date schedule is listed on the course website: <a href="http://blackboard.syr.edu">http://blackboard.syr.edu</a>

#### IT IS THE RESPONSIBILITY OF THE STUDENT TO SEEK HELP IN A TIMELY MANNER.

# **APPROXIMATE COURSE SCHEDULE**

Week of:	Monday	Wednesday	Lecture Topics	Lab Assignments
Aug 28	Ch 1	Ch 1	Introduction	Safety
Sept 4	Labor Day Break	Ch 2	Atoms	Rainbow Density p.40
Sept 11	Ch 2/Ch3	Ch 3	Atomic Structure	Conservation of Matter p. 64
Sept 18	Ch 3	Ch 4	Structure/ Bonding	Birthday Candles p. 94
Sept 25	Ch 4	Review	Chemical Bonds	Chemical Reactions (handout)
Oct 2	Exam 1 (Ch 1-4)	Ch 5	Chemical Accounting	No Lab
Oct 9	Ch 5	Ch 6	Accounting/ Solids, Liquids, Gases	Paper Chromatography (handout)
Oct 16	Ch 6	Ch 7	Intermolecular Forces/ Acids & Bases	Blowing Up Balloons p.188
Oct 23	Ch 7	Review	Acids & Bases	Acids, Bases, pH p.215
Oct 30	Exam 2 (Ch 5-7)	Ch 8	Oxidation-Reduction	No Lab
Nov 6	Ch 8	Ch 9	Batteries/Organic Chemistry	Light My Fruit p 248
Nov 13	Ch 9/Ch 10	Ch 16	Polymers/Biochemistry	Polymer Bouncing Ball p 315
Nov 20	Thanksgiving Break			
Nov 27	Ch 17	Ch18	Food/Drugs	Saturated Fats p 286
Dec 4	Review	Exam 3 (Ch 8- 10, 16-18)		No Lab

#### **COURSE POLICIES**

#### **Academic Honesty**

Complete academic honesty is expected of all students. Any incidence of academic dishonesty, as defined by the Syracuse University Academic Integrity Policy (http://class.syr.edu/academic-integrity/), will result in both course sanctions and formal notification of the College of Arts & Sciences.

#### Attendance

<u>Acceptable excuses</u> for missing lecture or lab include medical, religious, and University-sponsored activities (*e.g.* athletics). In all cases official, written documentation is required. Requests for special accommodations (except medical) must be made two weeks in advance. NO VERBAL EXCUSES WILL BE ACCEPTED. All such absences will be verified by Chemistry Department staff.

In case of illness you should inform your instructor or TA as soon as possible, prior to class time is preferred. *Medical absences* will be excused based on written advice from the Health Center or a licensed health-care provider (based upon clinical findings and prescribed treatment recommendations). NO VERBAL EXCUSES WILL BE ACCEPTED. The medical document must specifically indicate that you were unable to attend class. For complete details on excuse notes, visit: http://health.syr.edu/.

<u>Attendance is required in the laboratory</u>. Students must attend the laboratory section for which they are registered. All students must arrive to class on time. If a student arrives late, that student may not be permitted to carry out the experiment. Students may not leave the laboratory until they are completely finished unless they obtain permission from the TA.

There will be NO MAKEUP LABORATORIES except in the case of advanced-notice approved absences. ALL ADVANCED-NOTICE MAKEUP LABORATORIES MUST BE APPROVED AND SCHEDULED BY YOUR INSTRUCTOR.

An absence will not automatically be excused. Written excuses will be evaluated by the instructor. <u>Unexcused absences</u> will result in a score of zero for that laboratory, quiz or exam.

Religious Observances Policy (http://supolicies.syr.edu/emp\_ben/religious\_observance.htm)
SU recognizes the diversity of faiths represented among the campus community and protects the rights of students, faculty, and staff to observe religious holy days according to their tradition. Under the policy, students are provided an opportunity to make up any examination, study, or work requirements that may be missed due to a religious observance provided they notify their instructors before the end of the second week of classes. An online notification process is available through MySlice/Student Services/Enrollment/My Religious Observances from the first day of class until the end of the second week of class. The religious observances policy requires accommodation for the religious holiday itself, not for travel days if a student will be observing the holiday elsewhere.

#### **Disability-Related Accommodations**

Syracuse University values diversity and inclusion; we are committed to a climate of mutual respect and full participation. My goal is to create a learning environments that are useable, equitable, inclusive and welcoming. If there are aspects of the instruction or design of this course that result in barriers to your inclusion or accurate assessment or achievement, I invite any student to meet with me to discuss additional strategies beyond accommodations that may be helpful to your success.

If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), <u>disabilityservices.syr.edu</u>, located at 804 University Avenue, room 309, or call 315.443.4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue "Accommodation Authorization Letters" to students as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

<u>IF YOU HAVE A LEARNING OR PHYSICAL DISABILITY, please contact Professor Boyden as soon as possible</u> (during the first week of the semester) to arrange for appropriate accommodations.

# Safety

Safety is the most important aspect of working in the chemistry laboratory. Students must follow all of the safety protocol as outlined and directed by the instructor. Students must behave in a respectful manner while in the laboratory. Students may not use electronic devices (e.g. mobile phones) other than calculators or lab equipment in the laboratory. Such devices are a distraction and thus a safety violation. Students must sign the safety agreement. Students who violate safety protocol, become disruptive/disrespectful, or ignore directions given by the instructor will be asked to leave the laboratory and receive a grade of zero for that laboratory.

#### **Email**

Email is the official form of communication for this course. If an instructor needs to contact you during the semester, you will receive email at your Syracuse University email account. It is the responsibility of the student to check their SU email regularly. Instructors will answer their email at least once per day Monday – Friday while classes are scheduled.

#### Clickers

To participate in class sessions, you must purchase and correctly register a subscription to use with your mobile device or laptop. You also have the option of purchasing and registering a clicker to use instead. Registration is done through Blackboard.syr.edu  $\rightarrow$  CHE.103  $\rightarrow$  Tools  $\rightarrow$  Turning Point. No accommodations can be made for absence (including excused absence), failure to click, or technical difficulties. For more information see: https://answers.syr.edu/display/clicker/Student+Turning+Account.

#### **COURSE GRADING**

# **Laboratory Reports and Discussion Questions**

All <u>laboratory reports and discussion questions are due at the end of the laboratory class period</u>. If you do not turn in your work at the end of class, you will not receive any credit for the work.

The <u>participation grade</u> is based upon the student's level of preparation, safety, cleanliness, involvement in the experiment, behavior, and attention to instruction. This grade will be assigned by the teaching assistant as part of the laboratory report grade.

You are responsible for the answers on your laboratory report and discussion questions sheet. If there is a <u>problem with the grading</u> of your laboratory report or discussion questions, you must inform Dr. Boyden within <u>one week</u> of the assignment being returned to you. It is the responsibility of the student to inform the instructor of problems in a timely manner.

If you attend all 10 laboratory and discussion sections, your lowest laboratory score will be dropped.

#### **Exams**

Students must arrive on time for exams. Students who arrive late may not be permitted to take the exam and will receive a score of zero.

# **Optional Final Exam**

Students have the option to take the <u>cumulative</u> final exam. The final exam score will be used to replace a low score on one of the three hourly exams.

# **Grades are calculated as follows:**

3 Hourly Exams (20 % each) 60 % (Optional Final Exam) (20 %) Discussion Questions & Quizzes 15 % Laboratory Reports 25 %

The <u>preliminary scale for course letter grades</u> is shown below. It does not explicitly show the +/- ranges for each letter grade. Any <u>possible</u> curving will be applied at the end of the semester. Curving would only raise your grade, never lower it.

Letter Grade	Percentage	
A-range	90-100%	
B-range	80-89%	
C-range	70-79%	
D-range	60-69%	
F	≤59%	