

**Instructor Contact Information:** *All instructors have access to all student grade records*

<b>Section:</b>	<b>Instructor:</b>	<b>Office:</b>	<b>Phone:</b>	<b>Email</b>
W 2:30-5:20pm	Shawn Garrett	HA407F		shawn.garrett@mnstate.edu
Th 9:00-11:50am	Michelle Tigges	HA407D		michelle.tigges@mnstate.edu
Th 9:00-11:50am	Michelle Tigges	HA407D		michelle.tigges@mnstate.edu
Th 12:00-2:50pm	Michelle Tigges	HA407D		michelle.tigges@mnstate.edu
Coordinator	Jeffrey Bodwin	HA407H	477-4371	bodwin@mnstate.edu

Required Materials:

Laboratory notebook with carbon-copy pages (MSUM bookstore)  
Safety Goggles

**CHEM 150L General Chemistry Laboratory I [ 3 3I 3L ] (1)** Laboratory techniques of general chemistry including qualitative and quantitative analysis. Course should be taken concurrently with CHEM 150. Safety exam must be passed to remain in CHEM 150L or subsequent lab courses. Prerequisite: math placement OR MATH 127 OR MDEV 127

**Desire-2-Learn (D2L):**

<https://mnstate.ims.mnscu.edu/>

D2L will be used to distribute information for lab and to administer pre-lab quizzes. Email messages sent from D2L are sent to your mnstate.edu email account, be sure to check both regularly.

**Lab Manual:**

<http://www.dr bodwin.com/teaching/genchemlab.php>

The experimental procedures for this class (lab manual) will be posted online approximately 1 week before the lab period in which the experiment will be performed. **The link will be removed at 12:00pm on Wednesdays**, so be sure to print out the procedure before then.

**Pre-lab Videos and Quizzes:**

**4pts each quiz**

There will be an online pre-lab for each experiment, usually a video. These pre-labs will be linked on <http://www.dr bodwin.com/teaching/genchemlab.php> and in D2L. The videos are hosted on YouTube and can be accessed directly at <http://www.youtube.com/user/dr bodwin>. **There will also be a required pre-lab quiz each week in D2L, due by 12:00pm Wednesdays**. Late quizzes will not be accepted. Penalties for missed quizzes are: first missed quiz = zero points for the quiz, regular points for the rest of the experiment; second missed quiz = zero points for the quiz, half credit for the rest of the experiment; third missed quiz = fail the class. A “missed” quiz is any quiz on which 0 points are earned.

**Arrival and Attendance:**

**penalized on “Carbons” points**

Late arrival in lab is very disruptive and should be avoided. If you know you will be late for a lab, inform the instructor and your lab partner *before* class. Late arrival will be penalized similar to the pre-lab quizzes: **first late arrival is excused; second late arrival is half credit; third late arrival fails the class**. Anyone more than 10 minutes late (as determined by the instructor) will not be allowed to participate in the experiment and will receive a grade of zero for the experiment. Make-up labs will not be permitted without advance notice and approval by the instructor.

**Carbons:**

**3pts each week**

You are required to turn in carbon copies of your lab notebook each week. All experimental deviations from the lab manual, observations made during the experiment, data collected, and analysis should be recorded in your notebook as the experiment is being performed. **If carbons are not turned in at the end of the lab period, no points will be earned for the hand-in assignment or lab report associated with the experiment.**

For data collected or analyzed by computer, you must still record information on your carbon, but not all data needs to be transcribed or reproduced completely in your notebook. For data generated in LoggerPro, briefly describe the data in your lab notebook, for example “The graph of absorbance vs. wavelength showed a single peak centered at wavelength 545nm” or “The temperature increased linearly from 17.4°C to 35.8°C over 3.68 minutes”. For calculations performed by the computer (LoggerPro, Excel, etc.), describe and show a sample calculation for each formula you used. For example:

“The moles of gallium used in each experiment was calculated by dividing the mass of gallium pellets by the atomic mass of gallium, 69.723<sup>g</sup>/<sub>mol</sub>. Using values from experiment 1:

$$\frac{6.831 \text{ g Ga(s)}}{69.723 \frac{\text{g}}{\text{mol}}} = 0.09797 \text{ mol Ga}$$

If you have saved the information in a file, it's not a bad idea to note the location and filename you used so you can find the data more easily when you are working on the assignment.

### Hand-In Assignments:

20pts (HI)

Each experiment will have a hand-in assignment. **These assignments are due by 12:00pm on the Wednesday following completion of the experiment and must be typed.** The blank hand-in assignment will be posted as a MSWord document. Assignments turned in by 3:00pm on *Monday* will earn 1 bonus point. The first late assignment (after 12:00pm Wednesday) will earn half credit, subsequent late assignment will receive zero points. Earning zero points for two or more assignments will result in a failing grade for the course.

### Safe Practices:

8pts

Everyone is expected to follow safe and considerate procedures in lab. At the beginning of the semester, everyone starts with 8 points which are lost if unsafe practices are observed. This includes not wearing goggles, not cleaning up spills, not replacing covers on stock bottles, etc. Except in extreme cases, a warning will typically be given before points are lost.

### Safety Exam:

20pts

Safety is a critical aspect to working in a chemistry lab. During the first few lab periods you will review some safety information in lab, additional information is available online. You must take the safety exam *and you must pass the exam* to remain in the course. If you do not pass, you will be allowed 1 re-take.

### Lab Exam:

15pts

The lab exam will test your understanding of laboratory techniques and procedures, data collection and analysis, and error. It is not about specific trivia related to individual experiments. The best way to prepare for the lab exam is to think about what you're doing in lab every week as you do it. Why are you using a certain piece of glassware? What sources of error are present in an experiment and how can you limit that error?

### Grading:

There will be 9-10 experiments (pre-lab quizzes and hand-in assignments) over 13-15 lab weeks (carbons), a safety exam (20pts) and a lab exam (15pts). You must take both exams and you must pass the safety exam to remain in and pass the course. There is a tentative total of approximately 300pts for the course, although this may change slightly depending upon the exact roster of experiments. Tentative grade ranges: A = 100-90%, B = 89-80%, C = 79-70%, D = 69-60%. These cutoffs *may* be lowered at the instructor's discretion, but will not be raised.

### Academic Honesty

{ <http://www.mnstate.edu/sthandbook/POLICY/index.htm> }

Cheating will not be tolerated. You will be working with a partner in the lab, and you are welcome to work together on data analysis, but each student will be required to submit individual assignments. Copied work will result in a grade of zero *for the class* and may lead to expulsion from the University. For a full description of the MSUM Academic Honesty Policy, see the Student Handbook.

**Disability Access Statement:** Students with disabilities who believe they may need an accommodation in this class are encouraged to contact Greg Toutges, Director of Disability Services at 477-4318 (Voice) or 1-800-627-3529 (MRS/TTY), Flora Frick 154 as soon as possible to ensure that accommodations are implemented in a timely fashion. Information regarding Disability Services is available at <http://web.mnstate.edu/disability/>