

# Chemistry 1141 Syllabus

## General Chemistry I

## Fall 2018

**Instructor:** Dr. Andrew Napper

**Office:** Massie 323

**Telephone:** 351.3100

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**Office hours:** TR 1:30 – 3:00 P.M.  
F 11–11:50 A.M.

**Lecture:** MWF 1:00 – 1:53 P.M. (MAS 020)

**Lab:** M 2:00 – 4:53 P.M. **Section 03** (Massie 339)

W 2:00 – 4:53 P.M. **Section 04** (Massie 339)

**Attendance policy:** Attendance at lectures is strongly recommended. Attendance at laboratories is required. *Two or more unexcused lab absences will result in a grade of F for CHEM1141.*

**Excused absence policy:** In case of illness, accident, family emergency, or university-sponsored activity, you may be excused from labs, quizzes, and/or homework. In case of a missed exam, a make-up exam will be provided. For university-sponsored activities, an official excused absence slip must be obtained. This must be obtained in advance of the activity and given to the instructor one-week before your absence. For other absences, suitable documentation (such as a doctor's note, police accident report, etc.) must be provided within one-week of the excused absence. For absences longer than one week, an academic dean or the dean of students may issue you an excused absence which you can present to your instructor. Unexcused absences will result in a grade of zero for the assignment.

**Required materials:** *Chemistry: A Molecular Approach*, 4/e  
—Nivaldo Tro  
*Mastering Chemistry*  
—Bundled with the textbook or a separate access card  
*Chemistry 1141 Lab Manual, Fall 2018*  
—Dan Finnen, Wendi Fleeman, Derek Jones & Andy Napper  
A *non-programmable* scientific calculator (TI-30XIIS)  
*Safety goggles or visorgogs* (ANSI Z-87 approved)

**Grading:** 4 exams ..... 45 % (Library 204)  
Final exam (Comprehensive) ..... 20 % (MAS 020)  
Online Homework ..... 15 % (*Cyberspace*)  
Laboratory ..... 20 % (Massie 339)

**Final exam:** Wednesday December 12th, 12 P.M. (MAS 020)

**Blackboard course-site:** Notes, handouts, and other useful pieces of information will be available at the following URLs:  
<http://blackboard.shawnee.edu>  
<http://chem1141.sschemistry.com>

- MasteringChemistry:** You should log on and create your account as soon as possible! Online homework will be assigned on a weekly basis. The homework set may consist of tutorials, homework problems, and review problems. **Each homework set will be made available on Friday by 5 P.M., and will be due the following Friday by 5 P.M.**
- You will be able to access online assignments on Blackboard. They are located in the “Online Assignments” tab on the left side of the screen. The first time you take an assignment you will be required to log onto your MasteringChemistry account. After doing so, your account will be linked to SSU’s BlackBoard site, and you will not have to log in separately.
  - The inclusive-access course-fee provides you with access to the textbook and an account with MasteringChemistry at a significant cost savings. The access-code for MasteringChemistry (for students who do not opt out of the inclusive-access plan) is:  
PSCSPT-BLIDA-FLORY-SPRUE-FRONT-GLEES
- Cell-phone policy:** Cell phones (and other similar electronic devices, such as laptop computers, netbooks, Chromebooks, iPads, Surfaces, smart watches, etc.) are not permitted to be used during exams and laboratory exercises.
- Lecture material:** We will be covering the following chapters in your textbook:
- Chapter 1* Matter, Measurement, and Problem Solving  
*Chapter 2* Atoms and Elements  
*EXAM 1 (Thursday, September 27)*  
*Chapter 3* Molecules, Compounds, and Chemical Equations  
*Chapter 4* Chemical Quantities and Aqueous Reactions  
*Chapter 5* Gases  
*EXAM 2 (Thursday, October 25)*  
*Chapter 6* Thermochemistry  
*Chapter 7* The Quantum-Mechanical Model of the Atom  
*Chapter 8* Periodic Properties of the Elements  
*EXAM 3 (Thursday, November 15)*  
*Chapter 9* Chemical Bonding I: The Lewis Model  
*Chapter 10* Chemical Bonding II: Molecular Shapes, Valence Bond Theory, and Molecular Orbital Theory  
*EXAM 4 (Thursday, December 6)*
- Exams 1 – 4:** Exams 1 – 4 will be held in Library 204 (Flohr) from 5 P.M. – 6:50 P.M. These will be joint exams that all five sections of General Chemistry 1 will take together. A make-up exam will be available for students who have a time conflict or an official University excused absence.
- Disabilities:** Any student who believes s/he may need an accommodation based on the impact of a documented disability should first contact a Coordinator in the Office of Accessibility Services, Hatcher Hall, 740-351-3106 to schedule a meeting to identify potential reasonable accommodation(s). Students are strongly encouraged to initiate the accommodation process in the early part of the semester or as soon as the need is recognized. After meeting with the Coordinator, students are then required to meet with their instructor’s during the instructor’s office hours to discuss their specific needs related to their disability. The accommodation letter will be sent to the instructor and student via e-mail prior to the semester start date. Any questions regarding the accommodations on the letter should be addressed to the Coordinator of Accessibility Services. If a student does not make a timely request for disability accommodations and/or fails to

meet with the Coordinator of Accessibility Services and the instructor, a reasonable accommodation might not be able to be provided.

**General education program:** Chemistry 1141 counts towards the Natural Science component of the General Education Program (GEP) and addresses *Scientific Reasoning*.

**Laboratory information:** Safety goggles or visorgogs are required to be worn for all laboratories. They must meet ANSI Z87 requirements (normally this information is permanently stamped on the goggles). Laboratory coats are recommended, but not required. Full length pants or full-length skirts are required to be worn in lab. Shoes that cover all parts of your feet are also required. If you are improperly dressed for lab, you will be asked to leave and awarded a zero for the lab assignment.

Lab reports must be turned in *at the start* of the following week's lab. Late lab reports will not be accepted. Turned in lab reports must have your full name clearly written on the front page to receive a grade.

You must remain in lab with your lab partner until the lab report is turned in. If you leave lab early you will be counted as absent, and will receive a zero.

**Order of labs:**

Week Beginning	Mon	Wed
August 27th	1	1
September 3rd	Labor Day (No lab)	2
September 10th	2	3
September 17th	3	4
September 24th	4	5
October 1st	5	No lab
October 8th	6	6
October 15th	7	7
October 22nd	8	8
October 29th	9	9
November 5th	10 & 11	10
November 12th	Veterans day (no lab)	11
November 19th	No lab	No lab (Thanksgiving break)
November 26th	12	12
December 3rd	13 & 14	13 & 14

- Laboratories:**
1. Check-in, safety, and conversions
  2. Accuracy and precision
  3. A forensic analysis of ink
  4. Determining the formula of a hydrate
  5. A forensic chemistry exercise involving empirical formulas
  6. Double-replacement reactions
  7. An introduction to titrations
  8. Calcium carbonate determination of an eggshell
  9. Determining the ideal gas constant,  $R$
  10. Calorie content of nuts
  11. Determining the enthalpy of neutralization
  12. Lewis structures
  13. Molecular modeling using Hyperchem Lite 2.0
  14. Check-out

**Grading scale:**

% Grade	% Grade	% Grade	% Grade	% Grade
>93 A	87–90 B+	77–80 C+	67–70 D+	<60 F
90–93 A–	83–87 B	73–77 C	63–67 D	
	80–83 B–	70–73 C–	60–63 D–	

**Note:** To receive a grade of C– or higher, you must either pass (>59.5 %) at least three of the four semester exams, or score greater than a 30th percentile on the ACS standardized final. If you fail to meet either requirement the maximum issued grade will be a D+.

**Grading errors:**

If you notice a grade error on BlackBoard for quizzes, exams, etc—you need to bring it to the instructor’s attention in writing within one week of the due date (for an online assignment) or one week from the assignment being handed back (lab/exam assignments).

**Who should take this course?**

The typical audience for this course are: science, engineering, pre-pharmacy, pre-medicine, and science education majors. You may also be taking this course if you are interested in chemistry (yay!), are seeking to satisfy the natural sciences general education category, or curious about how things work.

**Is chemistry hard?**

Yes. But not impossible. Consider setting aside several hours a week to practice end-of-chapter homework problems, forming a study group, re-reading your MasteringChemistry assignments, reading the textbook, and quizzing yourself. Reviewing old material every few weeks has been shown to dramatically improve retention of material in college!

**Do I have to attend every lecture?**

Not attending lecture tends to correlate with doing poorly in chemistry. Do not get into the habit of missing class if you can possibly avoid it. At mid-term I will be reporting your expected grade and attendance to the Registrar. This information will be provided to your academic advisor(s), as well as student support services.

**What should I do if I need help?**

If you need help—don’t wait too long before you seek it out! The following is a partial list of options that are available to you:

- Chemistry study center—free 1-on-1 tutoring to all chemistry students. Offered in MAS341. The schedule is posted on my course website.
- Student success center tutoring. Stop by the success center and sign up for a (free) tutor!
- Browse my course website for chapter objectives, old exams, lecture notes, quizzes, etc.
- eTutoring is available 24 hours a day, 7 days a week through a consortium arrangement offered to universities in Ohio. You can access the link through MySSU—or ask in the success center.
- YouTube. Amazing selection of videos on any topic you can think about. The *Khan Academy* videos are an excellent place to start.
- Office hours. I hold four office hours a week over three days. Stop by if you have any questions about the course!

**Remind.com**

Text “@chem1141” to the number 81010 to receive reminders about quizzes, homework, exams, lab reports, etc. You can also text “@chem1141” to (740) 370-6173 if the previous number does not work.

**Disclaimer:**

All dates and policies are subject to change as announced in class.