Chemistry 100 – Chemistry for Contemporary Living
Fall 2017

I. General Information

Instructor: **Dr. Brian Lamp**

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Schedule:					
	Lecture	MWF	3:30 PM-4:20 PM	MG 2001	Instructor: Dr. Lamp
	Lab 05	M	1:30 PM-3:20 PM	MG 1025	Instructor: Dr. Moody
	Lab 09	T	11:30 AM-1:20 PM	MG 1025	Instructor: Dr. Sedinkin
	Lab 07	T	2:30 PM-4:20 PM	MG 1025	Instructor: Dr. Sedinkin
	Lab 06	W	11:30 AM-1:20 PM	MG 1025	Instructor: Dr. Fuller
	Lab 08	R	11:30 AM-1:20 PM	MG 1025	Instructor: Dr. Abeyratne

Textbook: Hill and McCreary, *Chemistry for Changing Times. 14th Edition,* Prentice Hall, 2016. ISBN 9780321972026 (10th-14th editions are acceptable)

Laboratory Manual: A schedule of experiments is included at the end of this syllabus. Each experiment is at http://chemlab.truman.edu/ under the **Chemistry for Contemporary Living** link. See also the Safety for CHEM 100 Students link.

You are responsible for printing the experiment(s) and the data sheet, and reading the lab procedures and safety issues prior to the beginning of each laboratory. Record on the data sheets during lab. Other materials will be distributed as needed.

Calculator: You must have a *hand-held scientific calculator* capable of scientific notation for use on homework problems, quizzes, and exams. It will be assumed that you have a calculator for all quizzes and exams. The instructor will not loan calculators.

Office Hours: Office hours are posted outside Dr. Lamp's office and on his website at http://blamp.sites.truman.edu/current-schedule/. If you are unable to meet during these hours when in need of help, please arrange a time IN ADVANCE.

Additional Resources: There are a variety of additional places to go for help with CHEM 100, they include:

1. **The Chemistry Contact Center** (MG 3090): The CCC offers first come, first serve tutoring by professors during the school day. The CCC schedule is online at http://chemlab.truman.edu/chemistry-contact-center/
2. **ΑΧΣ fraternity tutoring**: This is free, first come, first serve peer tutoring provided by sophomore, junior, and senior chemistry students. It is held Sun-Thurs, 7-9 pm in MG 3000 (above the Cyber Cafe). Check http://axe.truman.edu/ for information.
3. **The Center for Academic Excellence**: The Center is located in Kirk 110. It provides several services including individual tutoring by arrangement, as well as help with study strategies. Check out http://excellence.truman.edu/.

Course Objectives:

- Introduction of the concepts, terminology and practice of modern chemistry.
- Increase awareness of the impact of chemistry on society.
- Exploration, analysis, and critical evaluation of issues related to the environment, energy, and applications of chemistry in society.
- Improved skills in the communication of scientific and technical concepts.

Academic Integrity: Students are expected to abide by the Truman State University Student Conduct Code and complete their coursework, including exams and laboratories using their original words and ideas and properly cite the words and ideas of others. Students caught committing an act of academic misconduct will be subject to the full range of penalties, including failing the course. In every case, the Dean of Student Affairs office and the Vice President for Academic Affairs will be notified.

Special Needs: Any student who has a disability that may prevents full participation in class activities must contact the Student Disability Services Office (x4478) immediately to ensure that your needs are properly met. If no contact is made, no concessions will be considered. http://disabilityservices.truman.edu/

Mobile Devices: Unless you are an emergency responder, all mobile devices must be turned off and stored while in lecture. Class disruption due to your mobile device will result in dismissal from the class session (this includes exams). This policy includes texting.

II. Lecture

Course Coverage: The lecture portion of the course will cover several major topics in chemistry. Assigned readings from the text and assignments will be given to parallel the main topics. Our textbook will serve as a guide for our discussions and as a reference for key concepts. Particular emphasis will be placed on putting chemical concepts into a "real world" context. The goal is to have the "lecture" portion of the course be as discussion-driven as possible.

Lecture: The lecture portion of the course will explore and elaborate upon topics presented in the reading. Since the lectures will most certainly contain additional information not present in the reading, attendance is critical. *As a result, lecture attendance will play a role in borderline grade assignments.*

Exams: Three exams will be given. **Tentative exam dates are September 27 (W), November 1 (W) and December 6 (W).** A comprehensive final exam will be given Monday, Dec. 11 from 3:30-5:20 PM.

Homework and in-class assignments: Regular assignments will be given and graded so that the total contribution to the final grade is a maximum of 100 points. These may include in-class worksheets, textbook problems, web assignments, among others.

- Homework has a *significant* impact on your success in the course, not only in terms of its contribution to the total points in the course, but also in terms of preparation for quizzes and exams. Adequate time and consideration should be given to these assignments. The assignments given in class are a minimum of what students should work in the class. You are encouraged to work additional problems from the textbook to bolster your understanding.
- *Not all assignments will be graded.*
- Due dates will be announced in advance and will be strictly enforced.
- Reading and assignments will generally be announced at the beginning of class. *The instructor assumes no responsibility for communicating the assignment again for those who are late or miss class.*
- *Failure to turn in homework assignments will have a bearing on the consideration of borderline grades at the end of the semester.*

Quizzes: A short in-class quiz will be given during the first 10-15 minutes of class on the Friday of the weeks we do not have an exam. These quizzes will cover material since the previous quiz or exam. Eleven quizzes will be given and the low quiz score will be dropped.

Make-up Exams: No make-up exams or quizzes will be given. If you cannot attend a scheduled exam for a ***valid, instructor-approved reason***, notify the instructor IN ADVANCE and an arrangement will be made. No credit will be given for missed exams or quizzes without prior instructor approval.

II. Laboratory

Laboratory: Attendance is required for all lab sessions. Labs missed will not be made up. To potentially earn a C or better in the class, you must satisfactorily complete 8 of the 9 lab experiments. Completion of less than 7 experiments will result in a grade of F.

Safety Glasses: All students are required to have departmental approved *safety glasses or goggles* for use in the laboratory. These goggles must meet ANSI Z87 or Z87.1 standards. Strict compliance of this rule will be maintained at all times. These will be necessary for the **first scheduled laboratory period** and all labs thereafter.

Laboratory Attire: Proper lab attire will be required at **ALL** lab sessions. In addition to safety glasses, you must always attend lab wearing long pants, close-toed shoes, and a shirt that covers the upper body (at least equivalent to a crew neck tee-shirt). Inappropriately attired people will not be allowed in lab.

Lab Grading: Lab performance has a major bearing on your overall course grade. The areas listed below contribute to your lab grade.

A. Attendance/Preparation: Along with lab attendance, preparation, understanding of procedures, safety practices, independence, and cleanliness will be considered in assigning these scores. A brief prelab "quiz" will be given at the start of the lab session, both to encourage punctuality and to encourage reading the lab ahead of time. Questions can vary, such as "what is the title of today's experiment?" to "which two of these eight reagents are being used in today's experiment?" in order to assess your preparation and understanding of the experiment of the day.

B. Lab Assignments: Each experiment is accompanied by a lab data sheet and questions that encourage reflection about the experiment. These assignments will be completed by groups of 2 to 4 students and will be due the following lab period, unless otherwise instructed. Additional lab assignments and quizzes may also be given.

YOU MUST SUCCESSFULLY PASS THE LABORATORY IN ORDER TO PASS THE CLASS!

IV. Grading

Grade point breakdown:

Source	Total Points
Exams (3)	300 pts. maximum
Quizzes (11, drop lowest)	100 pts. maximum
Homework	100 pts. maximum
Final Exam	150 pts. maximum
Lab Attendance	50 pts.
Lab Assignments	100 pts. maximum
Special Project(s)	100 pts. maximum
Total points	900 pts. maximum

Grading Scale: Awarding of final class grades will be based on the scale below. Percentages will be computed on the basis of total possible points for the semester.

Grade	Percentage
A	90.0-100
B	80.0-89.9
C	70.0-79.9
D	60.0-69.9
F	<60.0

The instructor reserves the right to lower the grading scale, but it will never be raised.

Late Hand-ins: A penalty of 25% per **calendar day** will be assessed for turning in assignments later than the assigned date. After 4 days, a grade of zero will be awarded.

V. Other Information

- Please trim the edges of any spiral notebook paper prior to submission.
- All assignments in lab and lecture *must be written legibly and in a well-organized fashion*. If an answer or work cannot easily be interpreted, no credit will be given.
- All mathematical work used when solving a problem, whether on homework, quizzes or exams, *must be shown in order to receive credit for the problem*. Clearly mark your answers.

VI. Lab Schedule

Date	Exercise
8/21–8/25	**NO LABS (free add/drop);** Blackboard paperwork due by 5PM, Friday, Aug 25
8/28–9/1	Check-in; *States of Matter*
9/4-9/8	**Labor Day on 9/4, NO LABS**
9/11–9/15	*Diffusion and Polymers*
9/18–9/22	*Atomic Spectra: Energy, Light, and the Electron*
9/25–9/29	*Spectrophotometric Determination of Hemoglobin*
10/2–10/6	*Solution: Study of Solubility*
10/9–10/13	*Paper Chromatography*
10/16–10/20	**Fall Break 10/19-10/20, NO LABS**
10/23–10/27	*Hydrates: An Investigation of Moisture-absorbing Compounds*
10/30–11/3	*Chemical Reactions*
11/6–11/10	*Determination of Citric Acid in Fruit Juices*
11/13–11/17	*Saponification: Soap-making, Old Fashion Style*
11/20–11/24	**Thanksgiving, NO LABS**
11/27–12/1	*Esters: Those Wonderfully Odoriferous Chemicals/Building Molecules*
12/4-12/8	Check-out

"I'm a great believer in luck, and I find the harder I work the more I have of it."
-Thomas Jefferson