

CHEM 1106

Chemistry for the Health Professions Lab, Fall 2021



Instructors

Dr. Janet Maxwell

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Office: MWF 8:00 – 9:00 am; TR 9:30 – 10:30 am or by appointment

Mr. Rigel Rilling

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Office: Cav 201b, M 2:30-5:00, T 11:30-2:00

Course Information

Course Description

An Introduction to General, Organic and Biological Chemistry with emphasis on the role of Chemistry in health and illness. Intended for nurses and allied health professionals.

Although technically this is an online class, live attendance is required for each lecture and lab period. Collaborate will provide an attendance record, so no other attendance need be taken. Points will be awarded for full-time attendance in lab. The instructor reserves the right to deny attendance points to students who do not attend the entire lab period.

Co-requisite Courses

CHEM 1306: Chemistry for the Health Professions Lecture

Note 2: Although Chem 1306 and 1106 are listed as two separate courses, they are in fact linked together in content in such a way that you must take them simultaneously. You will receive the same grade for Chem 1106 as for Chem 1306. Thus, if you drop one course without dropping the other, you will automatically fail the one you did not drop. **The records office will not automatically drop one course if you drop the other.** If you are not already enrolled in both Chem 1306 and 1106, contact Dr. Maxwell or your academic advisor to remedy this situation.

Student Learning Outcomes

See the Chem 1306 Lecture Syllabus for Student Learning Outcomes.

Course Delivery

This is an online course that will be delivered via [Blackboard](#). **Error! Bookmark not defined.** If you choose, you can complete this course without visiting the ASU campus. (Note: This would also be the place to indicate if the course meets synchronously or if all work can be completed asynchronously.)

Required Texts and Materials

1. "General, Organic and Biological Chemistry", 4th edition by Frost and Deal (ISBN 978-0-13-498869-6)
2. "Lab Manual for Chem 1306/1106, 5th edition", Maxwell (ISBN 978-0-13-594071-6)
3. An academic or daily planner OR a calendar

Technology Requirements

1. Registration/Participation in the Sapling Learning For-Credit Homework Software System (ISBN: 978098338590)
2. Enrollment in Top Hat Classroom Response System (ISBN: 978-0-9866151-0-8) – no device needed
3. A scientific calculator (Texas Instruments is the recommended brand, but other brands are acceptable)
4. Web cam and required software for Respondus Lock-down Browser and monitor.

Access to exams and quizzes in lecture will be through Respondus Lockdown Browser and will be video recorded via Respondus Monitor. Respondus requires a desktop computer or laptop and a webcam. For best results, use an ethernet cable to connect to your Internet source instead of relying on Wifi. Refer to the Blackboard course for Respondus installation instructions.

Communication

All of Dr. Maxwell's office hours will be held online via Blackboard Collaborate. A link to access office hours can be found in the left column on the home page of your Blackboard course.

Mr. Rilling prefers answering questions through email, but can also meet during office hours over Collaborate by request.

Faculty will respond to email and/or telephone messages within 24 hours during working hours Monday through Friday. Weekend messages may not be returned until Monday.

Grading

Evaluation and Grades

14 labs will be completed and the one lowest lab grade will be replaced with a perfect score* – the sum of the lab grades will be worth 22.581 % of the final grade in the two courses.

There are thus $14 \times 25 = 350$ points available for labs.

*Only students with a valid documented excuse can have one lab grade replaced with a perfect score

Grading System

The points earned in the lab will be added to the grades earned in the 1306 course. The cumulative total of the points will be used to determine your final letter grade, which will be the same in the lecture and lab courses. For your convenience, your lab grades will also be entered into your lecture gradebook and lab gradebook so that you can see the combined effect on your grade as the semester progresses. See the **lecture** syllabus for more information.

Lab Course

Attendance in lab is a mandatory part of this course. We will do group activities in small groups of 3 or 4 students. The point values for these activities can be found on the lab schedule on the last page of this syllabus. **Note that almost all of the new material will be presented during the lab period and not in the lecture.** Poor attendance in lab will be fatal to your grade!

Labs and Experiments will be carried out as group activities in lab. Each lab will be worth 25 points. Students are required to check their lab answers with the Instructor or Lab Assistant before leaving the lab that day. If you miss lab for any reason you should carry out the work in the lab at home since quizzes will be given over the lab material near the beginning of the following week. **Note that you are directly responsible for learning all the material from the lab each week.** Only students with documented and valid excuses will have one lab grade dropped and replaced with a perfect score.

Course Policies

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)¹
- [Angelo State University Catalog](#)²

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the university's [Statement of Academic Integrity](#).³

Accommodations for Students with Disabilities

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA) and subsequent legislation.

Student Disability Services is located in the Office of Student Affairs, and is charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability. It is the student's responsibility to initiate such a request by contacting an employee of the Office of Student Affairs, in the Houston Harte University Center, Room 112, or contacting the department via email at ADA@angelo.edu. For more information about the application process and requirements, visit the [Student Disability Services website](#).⁴ The employee charged with the responsibility of reviewing and authorizing accommodation requests is:

Dr. Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu
Houston Harte University Center, Room 112

Blackboard:

Blackboard is a computer learning environment to help you with your studies. To log onto blackboard, type in <http://blackboard.angelo.edu> into your web browser. Then click the grey "Login" button to the left of the screen. Next type in your username and password. Your username and password are assigned by IT. Please see Dr. Maxwell if you have trouble logging onto Blackboard.

Calculators:

Students are expected to have a scientific calculator available during lab every day.. The calculator may be a graphing calculator, or just a regular scientific calculator. Students may NOT use cell phones in place of calculators during quizzes or exams.

Make-up Labs and Incomplete Work

Students will only be allowed to make up a lab grade if there is an illness, emergency or other schedule problem which is documented in writing. In order for a student to be eligible for a make-up lab, the student must notify Dr. Maxwell or Mr. Rilling **before** the lab is missed by

telephone, voice mail or email. When a student returns to class after missing a lab, he or she must present a document such as a doctor's note or funeral notice or coach's note in order for the instructor to give permission to miss the lab. If you have a documented excuse, your missing lab grade will be dropped and replaced with a perfect score. Note: Students can only be excused from one lab grade per semester. See ASU Operating Policy 10.11 [Grading Procedures](#)⁵ for more information.

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity policy](#)⁶ in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is academic theft. While the labs encourage collaboration and assume group-work, everyone is expected to work and no one is to sit back and parasitize the work of other group members without contributing.

Resources to help you understand this policy better are available at the [ASU Writing Center](#).⁷

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. See ASU Operating Policy 10.19 [Student Absence for Observance of Religious Holy Day](#)⁸ for more information.

Title IX at Angelo State University

Angelo State University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from sex discrimination of any kind. In accordance with Title VII, Title IX, the Violence Against Women Act (VAWA), the Campus Sexual Violence Elimination Act (SaVE), and other federal and state laws, the University prohibits discrimination based on sex, which includes pregnancy, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination and unwelcome behavior of a sexual nature. The term includes sexual harassment, nonconsensual sexual contact, nonconsensual sexual intercourse, sexual assault, sexual exploitation, stalking, public indecency, interpersonal violence (domestic violence or dating violence), sexual violence, and any other misconduct based on sex.

You are encouraged to report any incidents involving sexual misconduct to the Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator, Michelle Miller, J.D. You may submit reports in the following manner:

Online: [Incident Reporting Form](#)⁹

Face to Face: Mayer Administration Building, Room 210

Phone: 325-942-2022

Email: michelle.miller@angelo.edu

Note, as faculty members at Angelo State, your instructors are mandatory reporters and must report incidents involving sexual misconduct to the Title IX Coordinator. Should you wish to speak to someone in confidence about an issue, you may contact the University Counseling Center (325-942-2371), the 24-Hour Crisis Helpline (325-486-6345), or the University Health Clinic (325-942-2171).

For more information about resources related to sexual misconduct, Title IX, or Angelo State's policy please visit the [Title IX website](#).¹⁰

COVID-19 Policies

Although this class is entirely online, some of you may go onto the ASU campus to use computers, print items, etc. All students, faculty and staff are required to wear a mask on campus. We expect you to wear a mask while taking a quiz or exam if you are on the ASU campus. In addition, all students must enter their information into the Wellness screening app as many times as is required each day if they are on the ASU campus. Students who are alone in their dorm room are not required to wear a mask in order to take a quiz or an exam. Practice the proper safety procedures to minimize all exposure to the coronavirus.

Please refer to ASU's [COVID-19 \(Coronavirus\) Updates](#)¹¹ web page for current information about campus guidelines and safety standards as they relate to the COVID-19 pandemic.

Modifications to the Syllabus

This syllabus, including grade evaluation and course schedule, is subject to modification on potentially short notice based on developing circumstances. If the lab syllabus appears to conflict with the lecture syllabus at any point, you should rely on the lecture syllabus.

Course Schedule

Week	Week begins:	Lab	Homework
1	Aug. 23	Lab 2: Properties, Units & Conversions (25 pts)	Complete HW 1-1 after reading through Lab 1 and finishing Lab 2
2	Aug. 30	Lab 3: Multistep Conversions, Dosage Calculations and Specific Heat (25 pts)	Complete HW 1-2 after Lab 3
3	Sept. 6	Lab 4: Atoms, Isotopes & Radiation (25 pts)	Complete HW 2 after Lab 4
4	Sept. 13	Lab 5: Arrangement of e-, Ionic Compounds & Introduction to Moles & Covalent Compounds (25 pts)	Study for the lecture exam!
5	Sept. 20	Lab 6: Covalent Compounds and Moles (25 pts)	Complete HW 3-1 after Lab 5; HW 3-2 after Lab 6
6	Sept. 27	Lab 7: Introduction to Organic Compounds and Families of Organic Compounds (25 pts)	Complete HW 4-1 after Lab 7
7	Oct. 4	Lab 8: Naming Branched Alkanes and Isomers (25 pts)	Complete HW 4-2 after Lab 8
8	Oct. 11	Lab 9: Basic Principles of Chemical Reactions (25 pts)	Study for the lecture exam!
9	Oct. 18	Lab 10: Intro to Carbohydrates: Monosaccharides (25 pts)	Complete HW 5 after Lab 9; HW 6-1 after Lab 10
10	Oct. 25	Lab 11: Glycosidic Linkages, Disaccharides, and Polysaccharides (25 pts)	Complete HW 6-2 after Lab 11
11	Nov. 1	Lab 12: The Gas Laws	Study for the lecture exam!
12	Nov. 8	Lab 13: Polarity of Organic Molecules, Physical States, Solubility, Dietary lipids, Cell Membranes	Complete HW 7-1 after Lab 12; HW 7-2 after Lab 13
13	Nov. 15	Lab 14: Solutions, Solubility, Concentration (25 pts)	Complete HW 8-1 after Lab 14
14	Nov. 22	No lab; enjoy the holiday!	No HW!
15	Nov. 29	Lab 15: Dilutions, Osmosis, Membrane Transport (25 pts)	Complete HW 8-2 after Lab 15
Finals	Dec. 6		

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- 1 <https://www.angelo.edu/current-students/student-handbook/>
 - 2 <https://www.angelo.edu/academics/catalog/>
 - 3 <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>
 - 4 <https://www.angelo.edu/current-students/disability-services/>
 - 5 <https://www.angelo.edu/content/files/14197-op-1011-grading-procedures>
 - 6 <https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=96>
 - 7 https://www.angelo.edu/current-students/writing-center/academic_honesty.php
 - 8 <https://www.angelo.edu/content/files/14206-op-1019-student-absence-for-observance-of>
 - 9 <https://www.angelo.edu/incident-form>
 - 10 <https://www.angelo.edu/title-ix>
 - 11 <https://www.angelo.edu/covid-19/>