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Fall 9-1-2021

CHMY 104.00: Preparation for Chemistry

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Recommended Citation

Hu, Lu, "CHMY 104.00: Preparation for Chemistry" (2021). *University of Montana Course Syllabi*. 12147. https://scholarworks.umt.edu/syllabi/12147

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CHMY 104 - Preparation for Chemistry Fall 2021

Professor: Dr. Lu Hu

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Website: <u>http://hs.umt.edu/luhu/</u>

Teaching Assistant: Wade Permar

Email: wade.permar@umconnect.umt.edu

Office hours: In person or via Zoom

Monday, 10:00-11:00 am, Hu Wednesday 10:00-11:00 am, Hu

(You can set up another time by contacting Wade or me).

Checkout program for Laptops, webcams, or WiFi hotspots: Moodle and Zoom will be essential for this Fall, unfortunately. If you need to any help with internet access or laptops, UM has several programs that may be helpful. The library has a laptop and webcam check out program that allows 1-month/week loan. Check https://www.lib.umt.edu/services/tech-request. Let me know if you need any help regarding using and assessing Zoom.

Required textbook:

Introductory Chemistry: An Active Learning Approach, Mark Cracolice, 7th edition, ISBN 9780357363669; ebook 9780357363935

An ebook version is included as part of the digital book fee in your tuition.

A few words on the ebook

- RedShelf manages the opt-out process should a student want to opt out of the program.
- -Students have until the drop date (15 instructional days after the semester start) to opt out.
- -If a student opts out of the program, RedShelf will work with the publisher to terminate their access to the digital content. The student is then responsible for finding access to the materials on their own.
- -Often a publisher will make a print-out of the text available to students should they want a hard copy of the text. The print-out is offered at a reduced price and is ONLY available to students who are opted-in (~\$45 at the UM bookstore). Otherwise, students will need to find access to the materials on their own at the market price.
- -If a student opts out of the program, the bookstore will reimburse the student for the digital book fee. The student is still responsible to pay the university for the fee. The bookstore offer a reimbursement for the fee as they are a separate business and cannot refund student accounts.
- -If a student decides to drop the course before the drop date, the university will refund the digital book fee when they refund the student for the course.

Note Dr. Cracolice donates royalties from sales of the book at UM to charity.

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Course meeting time: - MWF 2:00 – 2:50 p.m., LA Building, Room 11
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- One of these discussion sections v

T 1:00 - 1:50 p.m.; SG 303 T 4:00 - 4:50 p.m.; LA 338 W 4:00 - 4:50 p.m.; HS 411

Course outcomes: This course is designed to prepare you to succeed in the regular General Chemistry sequence (CHMY 141/142) or in a General, Organic, and Biochemistry sequence (CHMY 121/123). This course will focus on the fundamental chemistry concepts and quantitative skills that are required to appreciate and understand a rigorous introduction to chemistry. Specifically, at the end of this course, you should be able to:

- Work quantitatively with fundamental chemical concepts regarding chemical formulas, chemical relationships, stoichiometry, concentrations of solutions, gas characteristics, and energy transfer;
- Be proficient at naming chemical substances and writing meaningful balanced chemical equations;
- Understand states and characteristics of matter, including some chemical behaviors predicted by the periodic chart;
- Understand fundamental atomic theory and structure of the atom.

Successful completion of CHMY 104 should position you to do well in the General Chemistry courses at UM or anywhere else.

Attendance Policy: I will expect you to be at every session of the class, because that is how you will succeed in this course. I will take attendance at least weekly, including in the discussion section, and attendance will contribute a fraction of your grade (see below). You are in control of your success, and I will expect you to take a professional approach to this course, which means you will attend faithfully.

Plagiarism: Representation of the work of others as your own is a violation of University policy and a serious breach of ethics. When you put your name on a piece of work, you are pledging that it is your own work. In certain cases, it is permissible to incorporate the work of others provided you appropriately acknowledge that contribution. In this class, we will often work together to understand concepts, but in the end, when you are asked to demonstrate your own mastery of those concepts, and you must do so independently. Violation of the plagiarism policy (including unauthorized use of electronic devices during exams) will have serious consequences for your success in this course and at the University.

Disabilities: If you know or suspect that you have a disability that will interfere with your success in this course, please contact Disabilities Services at the University of Montana. They may recommend specific accommodations, and the instructor will certainly comply with those recommendations. I don't want anything to interfere with your enjoyment of chemistry! Please reach out if I or Wade can help with any accommodations.

Course Grade: Your course grade will be determined by your performance on the items below: Quizzes (approx. 10): total of 35% (The lowest quiz will be dropped.)

Exams and final: 12.5% each for a total of 50%

Homework: 10% Attendance 5%

Homework will be typically assigned at the beginning of the week (10-20 questions) and due by Fridays. Homework is recommended after reading the corresponding chapters of the textbook. Some of questions will be revised as quizzes for Fridays. Quiz is 15 min.

Please recognize that the homework is an indispensable part of your mastery of the material. Therefore, a part of your grade will be determined by turning in homework each week. Don't shirk on doing your homework! You'd loss 10% of the final grade if you have three or more missing or late homework/OWL submissions. Likewise, more than 3 absences from class will result in forfeiture of that 5% of your grade.

Your final grade will be assigned according to the following ranges:

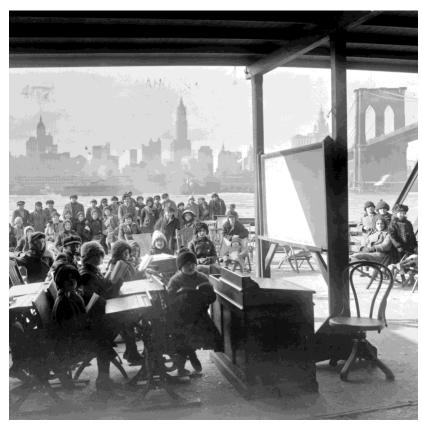
A	90-100
В	80-90
C	70-80
D	60-70
F	<60

I may use the +/- system in borderline cases.

COVID19 related stuff:

We will work together for the best practice for learning and for safety. The situation may change in the mid-semester and would require us to be flexible. Other notes just as a reminder:

- Mask use is required within the classroom or laboratory.
- If someone refuses to wear a mask, I will dismiss the class. I will then notify the Chair and the Dean and the student will be charged with a student conduct code violation.
- If you feel sick and/or are exhibiting COVID-19 symptoms, please don't come to class and contact the Curry Health Center at (406) 243-4330.
- If you are required to isolate or quarantine, you will receive support in the class to ensure continued academic progress. Let me know if you need me to open a zoom call during the class for you.
- UM recommends students get the COVID-19 vaccine. Please direct your questions or concerns about vaccines to Curry Health Center.
- Where social distancing (maintaining consistent 6 feet between individuals) is not possible, specific seating arrangements will be used to support contact tracing efforts.
- Class attendance and seating will be recorded to support contact tracing efforts.
- Drinking liquids and eating food is discouraged within the classroom.
- Please note this class is being recorded when we zoom it for other students.
- Students, please remain vigilant outside the classroom and help mitigate the spread of COVID-19.



What historical books will say about us during the 2020 COVID19 pandemic? (Photo: NYC students during the 1918 influenza pandemic)

Tentative course schedule and outline (subject to change):

M W F	8/30 9/1 9/3	Course introduction and chemistry overview, including Chapter 1 Chapter 2: Matter and Energy Quiz 1?
M W F	9/6 9/8 9/10	Labor Day, no class Chapter 3: Measurement and Calculations Quiz 2
M W F	9/13 9/15 9/17	Chapter 5: Atomic Theory Quiz 3
M W F	9/20 9/22 9/24	Chapter 6: Nomenclature
M W F	9/27 9/29 10/1	Exam 1? Quiz 4

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M
      10/4
W
      10/6
             Chapter 7: Chemical Formula Relationships
F
       10/8
             Quiz 5
M
      10/11
W
      10/13 Chapter 8: Chemical Reactions
      10/15 Quiz 6
F
M
      10/18
       10/20 Chapter 9: Chemical Change
W
F
      10/22 Exam 2
      10/25
M
W
      10/27 Chapter 10: Quantity Relationships in Chemical Reactions
F
      10/29 Quiz 7
      11/1
M
             Chapter 16: Solutions
W
      11/3
F
      11/5
             Quiz 8
      11/8
M
W
      11/10 Chapter 14: Gases
F
      11/12 Quiz 9
M
      11/15
W
      11/17 Exam 3
F
      11/19 Chapter 11: Atomic Theory
M
      11/22
W
      11/24 Non-instructional travel day for students Veterans Day- no class
F
      11/26 No class
M
      11/29
W
      12/1
             Chapter 12: Bonding
F
      12/3: Quiz 10
M
      12/6
      12/8: Course Review
W
F
       12/10: Last Day of Regular Classes
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Final Exam week: 12/13-12/17

Final Exam: Date/Time to be announced. This will be a comprehensive final exam, meaning all material from the course will be covered to some extent. Put this on your calendar now!