

Syllabus for CHEM 100

Course Information

Semester & Year: spring, 2023 Course ID & Section #: CHEM-100-V4603 Instructor's name: Paul Farnham

Course units: 4

Instructor Contact Information

Office location or *Online: Online Office hours: W8-9 PM via techZoom meeting Phone number: -Email address: Use Canvas Inbox or paul-farnham@redwoods.edu

Catalog Description

A brief introduction to the principles of chemistry and the application of mathematics to chemistry. Chem 100 is intended to prepare students for General Chemistry (CHEM 1A) who did not take high school chemistry or whose prior chemistry is outdated.

Course Student Learning Outcomes (from course outline of record)

1.Apply the problem-solving method of dimensional analysis to unit conversions, traditional proportion problems, percentage problems and in the development of derived units.

2. Evaluate chemical principles to quantitatively evaluate chemical reactions.

3.Apply chemical principles to qualitatively evaluate chemical reactions.

Evaluation & Grading Policy COURSE GRADING

The module practice problems – - 100 pts (20 % of total grade)

The 3 tests* - 300 points, 100 points each, (60% of total course)

The final exam - 100 points, (20% of the total course grade)

*Exams will be done at home, <u>on a printed copy of the test</u>, and brought to the Eureka campus OR USPS mailed according to the instructions given on the exam coversheet.

Academic dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the <u>College Catalog</u> and on the <u>College of the Redwoods website</u>.

Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Accessibility

College of the Redwoods is committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or <u>Disability Services and</u> <u>Programs for Students</u> (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1. floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

During COVID19–DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

Student Support

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact <u>Admissions & Records</u> to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. This does not change your legal name in our records. See the <u>Student Information Update form</u>.

Canvas Information

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class. Log into Canvas at https://redwoods.instructure.com

Password is your 8 digit birth date

For tech help, email its@redwoods.edu or call 707-476-4160

Canvas Help for students: https://www.redwoods.edu/online/Home/Student-Resources/ Canvas-Resources

Canvas online orientation workshop: https://redwoods.instructure.com/courses/6781

Student Support Services

The following online resources are available to support your success as a student:

- <u>CR-Online</u> (Comprehensive information for online students)
- Library Articles & Databases
- <u>Canvas help and tutorials</u>
- Online Student Handbook

<u>Counseling</u> offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- <u>Academic Support Center</u> for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- <u>Library Services</u> to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center

Special programs are also available for eligible students include

- Extended Opportunity Programs & Services (EOPS) provides services to eligible income disadvantaged students including: textbook award, career academic and personal counseling, school supplies, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in <u>Eureka</u> or in <u>Del Norte</u>
- The <u>Veteran's Resource Center</u> supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.

• Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

CHEM 100 ONLINE THE COURSE SYLLABUS

CONTACT INFORMATION Instructor: Paul Farnham Contact: paul-farnham@redwoods.edu Office Hours: W 8 PM techZoom meeting

Students are required to access their Canvas accounts. Any emails sent to your instructor will be responded to within 24 hours. OCCASIONAL IMPORTANT COURSE ANNOUNCEMENTS MAY BE SENT TO YOUR Canvas Inbox so check it at least every day. For you to get the most out of this course, you need to be engaged in it on a daily basis.

GENERAL OUTLINE OF THE COURSE

2 modules are assigned each week. Each Assignment consists of:

- Reading
- Example problems and linked files with videos or more practice problems
- An Assignment
- and sometimes a discussion question

The assignment will consist of practice problems that will be submitted using the Assignments tool in Canvas. The 1st module of each week is due by midnight on Tuesday. The 2nd module of the week is due on Friday by midnight. It is advisable that you not wait until the last minute to do the reading, study the examples and do the home work as it is in any class. This will give you time to reread the Lesson or sent an Inbox inquiry to your instructor about points you don't understand. You will get feedback on your submitted work, in the form of a reply on your returned Assignment, on Wednesdays and Saturdays. The Lessons for the next week will be posted on the website Saturdays and remain on the website for the rest of the semester.

For information on the actual operation of the Canvas website, to view the lessons and send messages to your instructor or participate in the chat room or forums, please see the Announcements section of the Home page for CHEM 100 on Canvas. The Announcements also has a list of locations where there are computers with Internet access that you can use.

Using a "scientific calculator" - one capable of entering numbers in exponential notation and finding logarithms is necessary in this course.

TECH DETAILS:

Your online course in located in Canvas, accessed from the CR homepage.

Exams will be done at home, on a printed copy of the test, and brought to the Eureka campus OR USPS mailed according to the instructions given on the exam coversheet.

For technical issues with Canvas or problems accessing your student email, contact Technical Services at 707.476.4160 or email support@redwoods.edu. All technical issues related to online courses are resolved by the Technical Services department. They have an online ticketing system you may also use at http://support.redwoods.edu.

THE SCHEDULE for spring 2023

Week 1

Module 1 - Unit Systems-Metric and English

Module 2 - Reading scales, significant figures, uncertainty, calculators and scientific notation

Week 2

Module 3 - Conversion factors and the unit analysis method of problem solving

Module 4 - More practice with the unit analysis method of problem solving

Week 3

Module 5 - % problems

Module 6 - Verifying equations with unit analysis

Week 4

Module 7 - Practice TEST on modules 1 -6

Module 8 - TEST on modules 1-6

Week 5

Module 9 - scientific notation and estimating answers

Module 10 - Geometric formulas and graphing data

Week 6

Module 11 - logarithms

Module 12 - Basic physics of chemistry

Week 7

Module 13 - Physical properties of matter

Module 14 - Chemical formulas and the mole concept

Week 8

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Module 15 - TEST on modules 7 -14

Module 16 - How are chemical formulas determined?

Week 9

Module 17 - Naming compounds

Module 18 - Chemical reactions

Week 10

Module 19 - Chemical calculations based on a balanced chemical equation

Module 20 - More practice with chemical calculations

Week 11

Module 21 - Solutions - concentration units, making solutions

Module 22 - Using solutions in reactions

Week 12

Module 23 - net ionic equations

Module 24 - TEST on modules 15 -23

Week 13

Module 25 - Gases and the Ideal Gas Law

Week 14

Module 26 - Gases in stoichiometry problems Module 27 - Acid and Bases

Week 15 Module 28 - Energy and Chemistry Module 30 - Review for the Final

Week 16 Module 31 – FINAL EXAM DUE

COURSE GRADING

Participation* in chat room and forums - 40 points, (5% of total course) The module practice problems - 290 points, 10 pts per assignment, (40% of total) The 3 tests - 300 points, 100 points each, (40% of total course) The final exam - 110 points, (15% of the total course grade)

* This means Substantial Participation - active in discussions once a week; asking for help on specific parts of a problem or contributing solutions to specific parts of a problem.

READ THE ADDITIONAL INFORMATION PAGE ATTACHED BELOW!

This syllabus is subject to change.