

Pierce College at Joint Base Lewis-McChord
Course Syllabus: Winter 2020
Course dates – Session 1: 01/06/2020 – 03/11/2020
Course dates – Session 2: 01/21/2020 – 03/20/2020

COURSE TITLE: Introduction to Chemistry – Online

ABBREVIATION: Chem&139

CREDIT HOURS: 5

LECTURE CONTACT HOURS: 50

LAB HOURS: 0

INSTRUCTOR: Don Woods

INSTRUCTOR INTRODUCTION: While considering a career in veterinary medicine, I moved to Pullman, WA (WSU), and obtained my Bachelor's Degree in Microbiology. I then spent several years traveling throughout Canada, the Western US, and Central America in a VW van, ending my travels in Maine (the "Oregon" of the East Coast). After living in Maine for a few years, I moved to Boston and spent a decade building my own financial services agency, hiring and training staff, managers, & agents to market securities, insurance, mortgages, and estate planning. I moved back to the Northwest, taught for several years at a number of community colleges south of Seattle, and then returned to graduate school at the UW to obtain my Masters Degree in Chemistry (Yes, I'm a "Cougar" AND a "Dawg" – along with being an "Oregon Duck" after growing up in Portland, OR). I have taught biological and chemical sciences at the college level for over twenty years.

COMMUNICATIONS: Email at dwoods@pierce.ctc.edu

PRE-REQUISITES: MATH 098 or equivalent with a grade of 2.0 or better or placement test score above MATH 098.

CATALOG DESCRIPTION: CHEM& 139 is a non-lab introductory course in chemistry for students intending to take CHEM& 161-163 (General Chemistry).

REQUIRED TEXT AND MATERIALS:

- *Introduction to Chemical Principles*, 11th Edition. H. Stephen Stoker, Pearson Prentice Hall, 2014
- Textbooks are available at <http://bookstore.mbsdirect.net/piercemilitary.htm>.

COURSE GUIDANCE:

CANVAS: <https://piercemil.instructure.com/login>

1. **Course Incompletes** are not automatic and must be requested from me. Incompletes must be approved and arranged with me.
2. **Student Responsibilities:** Please remember that it is your responsibility to notify me of major changes in your circumstances (e.g. deployment) that affect your ability to complete all course work within the course timeline.
3. **Proctoring:** This course may have online proctoring required for the Final Exam. If so, I will furnish proctoring information so you can make necessary arrangement well in advance of the proctored assessment(s).
4. **Withdrawal:** You must withdraw through registration to receive a "W". Students who stop attending class without officially withdrawing will receive a grade of 0.0. "NC" will not be given to replace a low grade.
5. **Plagiarism software:** Plagiarism software may be in use during your course.

STUDENT OUTCOMES: Upon successful completion of this course, a student should be familiar with:

- | | |
|--|---|
| <ol style="list-style-type: none">1. Exhibit proficiency using a scientific calculator.2. Express and manipulate numbers using scientific notation and significant figures.3. Recognize the importance of significant figures in measurements.4. Apply significant figures to measurements.5. Solve problems using units and dimensional analysis including cubed units such as m³ to cm³ and density.6. Generate and use conversion factors from available information.7. Construct and interpret graphs.8. Describe the fundamental organization of the periodic table. | <ol style="list-style-type: none">9. Describe the fundamental differences between the states of matter.10. Describe the basic structure of an atom.11. Use inorganic nomenclature system including a discussion of the properties of common acids and bases and their pH.12. Predict when an ionic or covalent bond will form.13. Relate the mass of a substance to the concept of the mole and Avogadro's number.14. Write and balance chemical equations.15. Perform mole-mole, gram-gram, percent and theoretical yield calculations from a balanced equation. |
|--|---|

COURSE REQUIREMENTS:

1. **HOMEWORK:** Much of the learning occurs as you struggle with homework. I have assigned “End-of-Chapter” problems from your textbook, but they are not graded or submitted. It is your responsibility to complete them for your understanding. The key to success in this class is to keep up with the material and do lots of practice problems.
2. **Lecture Quizzes:** Short Quizzes will include questions from the prior 1-2 Lecture Videos, and must be completed prior to moving on to the next series of Lecture Videos. You can earn up to 10 points on each Quiz and you have two hours complete it. Anything over 70% (7 points) is extra credit
3. **EXAMS:** Exams will include questions from the Lecture Videos and End-of-Chapter Homework. **The lowest Unit Exam score will be dropped** (This does not include Final exam).

GRADING: Each assignment and assessment will be given a specific point value. The earned value of all possible points will determine grade, per Pierce College published policy. See <http://www.pierce.ctc.edu/grading> for District Grading Policy. The schedule is subject to change if the need arises.

WEIGHT OF ASSIGNMENTS & GRADE SCALE

<u>Assignment</u>	<u>Points</u>	<u>Grade</u>	<u>% of Total Points</u>
Video Quizzes:	7	4.0	95.0% and above
Unit Exams:	100	3.0	85.0% (+ 0.1 for each 1% over 85)
Final Exam:	150	2.0	75.0% (+ 0.1 for each 1% over 75)
		1.0	60.0% (+ 0.067 for each 1% over 60)
		0.0	Below 60.0%
			(e.g. 92% → 3.7 grade)

<u>Grade Point</u>	<u>Letter Grade</u>	<u>Grade Point</u>	<u>Letter Grade</u>	<u>Grade Point</u>	<u>Letter Grade</u>	<u>Grade Point</u>	<u>Letter Grade</u>
4.0 ~ 3.5	A	3.4 ~ 2.5	B	2.4 ~ 1.5	C	1.4 ~ 1.0	D

COURSE SCHEDULE: All course dates for exams, along with all due dates for assignments, are listed in Canvas.

<u>Unit</u>	<u>Chapters (Sections)</u>	<u>Requirements</u>	<u>Outcomes</u>
Unit-1	2, 3, & 4	Unit Quizzes, PreQuiz, Exam 1	1, 2, 3, 4, 5, 6, 7, 9
Unit-2	5, 6 (Sec 1-2), & 9	Unit Quizzes, PreQuiz, Exam 2	8, 10, 12, 13, 15
Unit-3	8	Unit Quizzes, PreQuiz, Exam 3	11, 12
Unit-4	7	Unit Quizzes, PreQuiz, Exam 4	12
Unit-5	6	Unit Quizzes, PreQuiz, Exam 5	8
Unit-6	10	Unit Quizzes, PreQuiz, Exam 6	11, 13, 14, 15
Final	2-10	Final Exam	

CONSENT AGREEMENT: A Pierce College course requires frequent interaction with your instructor. It is, therefore, essential that you agree to the conditions set forth in the course syllabus. After you have read the course syllabus, let us know (do not wait) if you do not agree with the course conditions and requirements. If we do not hear from you within three (3) days from the start of the course, we will assume you agree with the conditions set forth in this syllabus.

POLICIES AND PROCEDURES: Pierce College Military Program Policies and Procedures are located at: <http://www.pierce.ctc.edu/military/canvas/Policies/index.html>, or on the Policies and Procedures menu item in Canvas.

ACCESSIBILITY: Your experience in this class is important, and it is the policy and practice of Pierce College to create inclusive and accessible learning environments consistent with federal and state law. If you experience barriers based on disability, please seek a meeting with the Access and Disability Services (ADS) manager to discuss and address them. If you have already established accommodations with the ADS manager, please bring your approved accommodations (green sheet) to me at your earliest convenience so we can discuss your needs in this course. ADS offers resources and coordinates reasonable accommodations for students with disabilities. Reasonable accommodations are established through an interactive process between you and the ADS manager, and I am available to help facilitate them in this class. If you have not yet established services through ADS, but have a temporary or permanent disability that requires accommodations (this can include but not be limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are encouraged to contact ADS at 253-964-6526 (Fort Steilacoom) or 253-840-8335 (Puyallup).

Chem-139 ONLINE-2 (Woods)

McChord: Winter 2020

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Jan 6, 2020	7	8	9	10	11
13	14	15	16	17	18
20	21 Session-B Begins	22	23	24	25
27	28	29	30 Unit-1 B Due	31	Feb-1
3	4	5	6	7	8 Unit-2 B Due
10	11	12	13	14	15
17 Unit-3 B Due	18	19	20	21	22
24	25	26	27 Unit-4 B Due	28	29
2	3	4	5	6 Unit-5 B Due	7
9	10	11	12	13	14
16 Unit-6 B Due	17	18	19	20 Final Exam B Due	21
23	24	25	26	27	28