

**Pierce College at Joint Base Lewis-McChord**  
**Course Syllabus**  
**Course dates: 01/21/20 – 03/20/20**

**COURSE TITLE:** General Chemistry Preparation

**ABBREVIATION:** Chem&139

**CREDIT HOURS:** 5                    **INSTRUCTIONAL HOURS:** 50                    **LAB HOURS:** 0

**INSTRUCTOR:** Shuren Xu

**INSTRUCTOR INTRODUCTION:** I have been teaching Chemistry for Pierce College Military Program over 15 years. My academic credentials include:  
BA in Animal Nutrition from China.  
MS and Ph.D. in Animal Nutrition from Norway.  
Post-Doctoral Research in Animal Nutrition at Washington State University.

**COMMUNICATIONS:** All course communications will be through the Canvas course inbox.

**PREREQUISITE:** MATH 098 or equivalent with a grade of 2.0 or better or placement test score above MATH 098. <https://inetapps.pierce.ctc.edu/CrsMgt/Login.aspx>

**CATALOG DESCRIPTION:** Designed to introduce the science major student to mathematical and chemical principles needed for a successful experience in their science studies. Includes problem solving, graphs, calculator use, atomic structure, periodic properties, inorganic nomenclature, the mole, balancing equations and stoichiometry.

**REQUIRED TEXT AND MATERIALS:** Introduction to Chemical Principles, 11<sup>th</sup> Edition. H. Stephen Stoker, Pearson Prentice Hall, 2014. Textbooks are available at <http://piercebookstore.bncollege.com/webapp/wcs/stores/servlet/TBWizardView?catalogId=10001&langId=-1&storeId=65224>

**COURSE GUIDANCE:**

1. **Proctoring:** This course may have online proctoring required for assessments. I will furnish proctoring information very early in the course so you can make necessary arrangement well in advance of the proctored assessment(s).
2. **Course Expectations:** As a student, you can expect that I will respond to your e-mail within 48 hours and will grade assignments/tests/quizzes within four (4) days. Exceptions will be announced in advance. Please contact me immediately if you have not heard from me within these timelines.
3. **Introductions:** Students are expected to post a short (one paragraph) introduction to the course Discussions Area during the first week of the course. I have guidelines within the course for the introduction located in the **first Module**.
4. **Discussions:** This course may have discussions as part of the curriculum. Students may also desire to discuss topics with other students in an unscheduled manner. I, as part of the course, may publish discussion questions/topics and require your input. Should you desire to hold a discussion with other students enrolled in your course, you may be authorized to create your own discussion topics.
5. **Course Incompletes:** are not automatic and must be requested from me. Incompletes must be approved and arranged with me.

- 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.
- Plagiarism software:** Plagiarism software may be in use during your course.  
<http://www.pierce.ctc.edu/library/plagiarizing>
- Etiquette:** Etiquette for classroom and online courses is the same. Treat others as you would like to be treated, respectfully and compassionately.

**STUDENT OUTCOMES:** Upon successful completion of this course, you should be able to:

- Exhibit proficiency using a scientific calculator.
- Express and manipulate numbers using scientific notation and significant figures.
- Recognize the importance of significant figures in measurements.
- Apply significant figures to measurement.
- Solve problems using units and dimensional analysis including cubed units such as  $m^3$  to  $cm^3$  and density.
- Generate conversion factors from available information.
- Construct and interpret graphs.
- Describe the fundamental organization of the Periodic Table.
- Describe the fundamental differences between the states of matter.
- Describe the basic structure of an atom.
- Use inorganic nomenclature system including a discussion of the properties of common acids and bases and their pH.
- Predict when an ionic bond and a covalent bond will form.
- Relate the mass of a substance to the concept of the mole and Avogadro's number.
- Write and balance simple chemical equations.
- Perform mole-mole, gram-gram, percent and theoretical yield calculations from a balanced equation.

**COURSE REQUIREMENTS:**

- Submit written or typed Chapter assignments (10 Chapter assignments, total 100 points).
- Tests. There are 3 tests in this course. Test 1 covers Chapters 2, 3, 5, and 6. 100 points  
Test 2 covers Chapters 7, 8, and 9. 100 points.  
Test 3 covers Chapters 4, 10, and 11. 100 points.

There are total 400 points.

**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:

**WEIGHT OF ASSIGNMENTS/ASSESSMENTS:**

Category	# per module	# per course	Value
Writing Assignments (10 pts. Each Chapter, total 10 Chapters)			100 pts.
Exams (100 pts. Each, total 3 tests)			<u>300 pts.</u>
Total			400 pts.

(Divide your total points by the value of the assignments/assessments to calculate your current % and grade.)

**GRADE SCALE:** See <http://www.pierce.ctc.edu/about/policy/grading> for District Grading Policy

<b>Grade Point:</b> 4.0 - 3.9	<b>Letter Grade:</b> A	<b>Percentage:</b> 100 – 95%
<b>Grade Point:</b> 3.8 - 3.5	<b>Letter Grade:</b> A-	<b>Percentage:</b> 94 – 90%
<b>Grade Point:</b> 3.4 – 3.2	<b>Letter Grade:</b> B+	<b>Percentage:</b> 89 – 87%
<b>Grade Point:</b> 3.1 – 2.9	<b>Letter Grade:</b> B	<b>Percentage:</b> 86 – 84%

<b>Grade Point: 2.8 – 2.5</b>	<b>Letter Grade: B-</b>	<b>Percentage: 83 – 80%</b>
<b>Grade Point: 2.4 – 2.2</b>	<b>Letter Grade: C+</b>	<b>Percentage: 79 – 77%</b>
<b>Grade Point: 2.1 – 1.9</b>	<b>Letter Grade: C</b>	<b>Percentage: 76 – 74%</b>
<b>Grade Point: 1.8 – 1.5</b>	<b>Letter Grade: C-</b>	<b>Percentage: 73 – 70%</b>
<b>Grade Point: 1.4 – 1.2</b>	<b>Letter Grade: D+</b>	<b>Percentage: 69 – 65%</b>
<b>Grade Point: 1.1 – 1.0</b>	<b>Letter Grade: D</b>	<b>Percentage: 64 - 60%</b>
<b>Grade Point: 0.0</b>	<b>Letter Grade: F</b>	<b>Percentage: &lt; 59%</b>

**COURSE SCHEDULE:**

You will accomplish each module's learning objectives, which align with the course outcomes, by completing the readings and assessments as listed in the schedule, below.

	<b>Modules</b>	<b>Chapters</b>	<b>Requirements</b>	<b>Outcomes*</b>
Week 1	1	1, 2 and 3	Homework Chapter 1 – 3 due.	1,2, 3, 4, 6
Week 2	1	2, 3, 5 and 6	Homework Chapter 2 – 6 due.	1, 2, 3, 4, 6, 7, 8, 10
Week 3	1	2, 3, 5 and 6. Test 1	Homework Chapter 2 – 6. Test 1 due.	4, 5, 6, 7, 8 10
Week 4	2	7, 8 and 9	Homework Chapter 7 – 9 due.	11, 12, 13, 14, 15
Week 5	2	7, 8 and 9	Homework Chapter 7 – 9 due.	11, 12, 13, 14, 15
Week 6	2	7, 8 and 9. Test 2	Homework Chapter 7-9. Test 2 due.	11, 12, 13, 14, 15
Week 7	3	4, 10 and 11	Homework Chapter 4, 10 and 11 due.	4, 5, 6, 7, 9
Week 8	3	4, 10 and 11	Homework Chapter 4, 10 and 11 due.	4, 5, 6, 7, 9
Week 9	3	4, 10 and 11	Homework Chapter 4, 10 and 11. Test 3 due.	4, 5, 6, 7, 9

\* Note: Outcomes are listed in the area entitled "STUDENT OUTCOMES," above.

**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:**

Access Pierce College at Joint Base Lewis-McChord and Pierce College District here: [www.pierce.ctc.edu/military/canvas/Policies/index.html](http://www.pierce.ctc.edu/military/canvas/Policies/index.html)