

# CH 121 401

## CH 121 - GENERAL CHEMISTRY

Spring 2020 Syllabus, Section 401, CRN 56780

Credit hours: 5

## Instructor Information

Marita Barth

Katherine Caspary

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## Session

3\30 to 6\5

## Course Description

A general chemistry sequence for students who have had no previous training in chemistry and for those whose college aptitude test scores indicate the need for a more elementary introduction to chemistry. Entering students are expected to have a working knowledge of high school algebra, logarithms, and scientific notation. Lec/lab/rec. (CH 122, CH 123 are Bacc Core Courses)

## Course Credits

This course combines approximately 150 hours of instruction, online activities, and assignments for 5 credits.

## Course Learning Outcomes

Bacc Core - Perspectives: Physical Science with Lab: students will recognize and apply concepts and theories of basic physical or biological sciences; apply scientific methodology and demonstrate the ability to draw conclusions based on observation, analysis, and synthesis; and demonstrate connections with other subject areas.

## Communication

Please post all course-related questions in the Q&A Discussion Forum so that the whole class may benefit from our conversation. Please contact me privately for matters of a personal nature. I will reply to course-related questions within 24-48 hours. I will strive to return your assignments and grades for course activities to you within about five days of the due date.

## Evaluation of Student Performance

### Quizzes (16.51%)

#### Introductory Quiz 10 points

This quiz covers material in the Syllabus as well as in the Start Here, Course Information, and Proctoring Information modules. Please be sure you have reviewed these before attempting this quiz.

You may take this quiz as many times as necessary to earn full credit up until the due date/time. Please note that this is the **ONLY** quiz in this course that allows multiple attempts.

#### CH 121 Pre-Assessment 10 points

This quiz consists of questions taken from material throughout CH 121, as well as questions designed to gauge your thoughts with regard to studying chemistry.

You are not expected to study for the pre-assessment, but you are expected to put forth your best effort.

#### Chapter 1 Quiz 10 points

This quiz is based on material in Chapter 1. You have one attempt, so please be sure you're prepared before accessing this quiz.

#### Chapter 2 Quiz 5 points

This quiz is based on material in Chapter 2. You have one attempt, so please be sure you're prepared before accessing this quiz.

#### Chapter 3 Quiz 12 points

This quiz is based on material in Chapter 3. You have one attempt, so please be sure you're prepared before accessing this quiz.

#### Chapter 4 - Part 1 Quiz 12 points

This quiz is based on material in Part 1 of Chapter 4. You have one attempt, so please be sure you are prepared before taking this quiz.

#### Chapter 4 Part 2 and Chapter 5 Quiz 9 points

This quiz covers material in Part 2 of Chapter 4, and in all of Chapter 5. You have one attempt, so please be sure you're prepared before taking the quiz.

#### Chapter 6 Quiz 12 points

This quiz is based on material in Chapter 6. You have one attempt, so please be sure you're prepared before accessing this quiz.

**Chapter 7 Quiz 10 points**

This quiz is based on material in Chapter 7. You have one attempt, so please be sure you're prepared before accessing this quiz.

**Homework Totals (18.35%)****Chapter 1 - Part 1 3 points**

This assignment consists of the following homework segments:

- Matter, Mass, and Weight (1 pt)
- Atoms and Molecules (1 pt)
- Elements, Compounds, & Mixtures (1 pt)

These can all be accessed directly from the Chapter 1 module.

**Chapter 1 - Part 2 9 points**

This assignment consists of the following homework segments:

- Physical and Chemical Properties (1 pt)
- Extensive and Intensive Properties (1 pt)
- Measurements (1 pt)
- Calculations Using Measurement (2 pts)
- Measurement Uncertainty (1 pt)
- Significant Figures (1 pt)
- Dimensional Analysis (2 pts)

These can all be accessed directly from the Chapter 1 module.

**Chapter 2 6 points**

This assignment consists of the following homework segments:

- Classical Atomic Theory
- Modern Atomic Theory
- Atomic Structure
- Isotopes
- Chemical Symbols
- Chemical Formulas

These can all be accessed from the Chapter 2 Module.

**Chapter 3 - Part 1 15 points**

This assignment consists of the following homework segments:

- Classic Electromagnetic Theory...
- Bohr's Atomic Theory
- Bohr's Model: Energy Calculations
- Quantum Theory: Introduction
- Quantum Numbers
- Electron Configurations
- Orbital Diagrams
- Extensions of Electron Configurations

All of these segments can be accessed from the Chapter 3 Module.

**Chapter 3 - Part 2 8 points**

This assignment consists of the following homework segments:

- Variations in Element Properties: Covalent and Ionic Radii
- Variations in Elemental Properties: Ionization Energies and Electron Affinities

- Paradoxes within the Classic Electromagnetic Theory
- The Periodic Table
- The Periodic Table: Interpretation and Identification
- Ionic Compounds
- Molecular Compounds

These segments can all be accessed in the Chapter 3 Module.

**Chapter 4 - Part 1 15 points**

This assignment consists of the following homework segments:

- Ionic Bonding: Cations and Anions (2.5 pts)
- Covalent Bonding: Understand the... (1 pt)
- Covalent Bonding: Electronegativity (1 pt)
- Chemical Nomenclature: Ionic... (2 pts)
- Chemical Nomenclature: Molecular... (1.5 pts)
- Lewis Structures (2.5 pts)
- Lewis Structures: Octet Rules (2.5 pts)
- Formal Charges and Resonance (2 pts)

These segments can all be accessed in the Chapter 4 - Part 1 Module.

**Chapter 4 - Part 2 3 points**

This assignment consists of the following homework segments:

- VSEPR Theory (2 pts)
- Molecular Geometry and Polarity (1 pt)

These segments can all be accessed in the Chapter 4 - Part 2 Module.

**Chapter 5 4 points**

This assignment consists of the following homework segments:

- Valence Bond Theory (1 pt)
- Hybridization (2 pts)
- Orbital Overlap in Multiple Bonds (1 pt)

These segments can all be accessed in the Chapter 5 Module.

**Chapter 6 - Part 1 15 points**

This assignment consists of the following homework segments:

- Formula Mass (2.5 pts)
- The Mole: Definition and Use (1 pt)
- The Mole: Conversions to Grams (2 pts)
- The Mole: Conversions to Atoms (3 pts)
- Empirical Formula (4 pts)
- Molecular Formula (2.5 pts)

These segments can all be accessed in the Chapter 6 Module.

**Chapter 6 - Part 2 10 points**

This assignment consists of the following homework segments:

- Molarity: Definition and Calculations (2.5 pts)
- Molarity and Molar Calculations (3.5 pts)
- Dilutions: Determining Concentration (2 pts)
- Dilutions: Determining Volume (2 pts)

These segments can all be accessed in the Chapter 6 Module.

### Chapter 7 12 points

This assignment consists of the following homework segments:

- Writing and Balancing Chemical Equations (2.5 pts)
- Reaction Stoichiometry: Moles (4 pts)
- Reaction Stoichiometry: Mass (2.5 pts)
- Limiting Reactant (3 pts)

These segments can all be accessed in the Chapter 7 Module.

### Labs (10.09%)

#### Lab 1 - Lab Techniques 5 points

To complete this lab, please go to the Modules page and access the the Online Chem Labs link in the Online Labs module. Completing the lab at the labs site is sufficient - there is no separate submission step. Please note that your score on the lab will not update in the Canvas gradebook until after the due date for the lab.

#### Lab 2 - Linear Regression 5 points

To complete this lab, please go to the Modules page and access the the Online Chem Labs link in the Online Labs module. Completing the lab at the labs site is sufficient - there is no separate submission step. Please note that your score on the lab will not update in the Canvas gradebook until after the due date for the lab.

#### Lab 3 - Standard Deviations 5 points

To complete this lab, please go to the Modules page and access the the Online Chem Labs link in the Online Labs module. Completing the lab at the labs site is sufficient - there is no separate submission step. Please note that your score on the lab will not update in the Canvas gradebook until after the due date for the lab.

#### Lab 4 - Absorbance 10 points

To complete this lab, please go to the Modules page and access the the Online Chem Labs link in the Online Labs module. Completing the lab at the labs site is sufficient - there is no separate submission step. Please note that your score on the lab will not update in the Canvas gradebook until after the due date for the lab.

#### Lab 5 - NMR 10 points

To complete this lab, please go to the Modules page and access the the Online Chem Labs link in the Online Labs module. Completing the lab at the labs site is sufficient - there is no separate submission step. Please note that your score on the lab will not update in the Canvas gradebook until after the due date for the lab.

#### Lab 6 - Combustion 10 points

To complete this lab, please go to the Modules page and access the the Online Chem Labs link in the Online Labs module. Completing the lab at the labs site is sufficient - there is no separate submission step. Please note that your score on the lab will not update in the Canvas gradebook until after the due date for the lab.

#### Lab 7 - TLC and Synthesis 10 points

To complete this lab, please go to the Modules page and access the the Online Chem Labs link in the Online Labs module. Completing the lab at the labs site is sufficient - there is no separate submission step. Please

note that your score on the lab will not update in the Canvas gradebook until after the due date for the lab.

### Exams (55.05%)

#### Final Exam (S20) 200 points

This exam consists of 40 questions and one extra credit question. You have 110 minutes (one hour and fifty minutes) to complete and submit the exam.

#### Midterm Exam (S20) 100 points

This exam consists of 25 questions worth four points each, and one extra credit question.

You have 80 minutes (one hour and 20 minutes) to complete and submit the exam. The exam will autosubmit after 80 minutes.

### Extra Credit (4.4%)

#### Course Introductions 3 points

Hello CH121 Students! I'm looking forward to working with everyone this term! For our first extra credit assignment, we're going to work on building a community of learners in this course. It's far too easy to feel alone and isolated in an online classroom, but it's not true! Not only are the TAs and Instructors here to help, but there are also a lot of other students in this class who care and are excited to learn with you, and you'll likely find there are a lot of other students you have things in common with.

#### Week 1 Extra Credit 3 points

Please be sure you've watched the video 'The 6 Habits of Highly Successful Students' before starting this extra credit survey.

Also, please be aware that while the points for this survey will be awarded automatically upon submission, these points may be reduced or removed upon review if you don't answer all of the questions in the survey. Please answer thoughtfully!

#### Week 2 Extra Credit 3 points

Before starting this survey, be sure that you've reviewed your Chapter One quiz (or have contacted the instructor if you missed this quiz), and have your work from that quiz available.

#### Week 3 Extra Credit 3 points

Please answer the questions in the following survey honestly and completely.

#### Week 4 Extra Credit 3 points

Please be sure to answer the questions on this survey honestly and completely.

#### Week 5 Extra Credit 3 points

Before starting this extra credit survey, please review this information about managing test anxiety (<https://www.brown.edu/campus-life/support/counseling-and-psychological-services/?q=managing-test-anxiety>).

#### Week 6 - Extra Credit - Midterm Exam Wrapper 3 points

This assignment is designed to give you a chance to reflect on your exam performance and, more importantly, on the effectiveness of your exam preparation. Please answer the questions sincerely.

**Week 7 Extra Credit 3 points**

Please answer the questions in this assignment honestly and completely.

Remember that your assignment is auto-scored, but your score may be reduced later if you leave questions blank or leave minimal answers.

**Week 8 Extra Credit 3 points**

Please answer the questions in this assignment honestly and completely.

Remember that your assignment is auto-scored, but your score may be reduced later if you leave questions blank or leave minimal answers.

**Week 9 Extra Credit 3 points**

Please answer these questions completely and honestly.

Remember that these extra credit surveys are auto-graded, but that points may be deducted later if you leave questions unanswered or with minimal answers.

**Week 10 Extra Credit 3 points**

For our final extra credit assignment, we're going to create a discussion board where people can discuss preparations for the final exam, and offer encouragement to each other. To earn full credit for this extra credit, please compose a post with 2-3 (at least!) sentence answers to each of the following questions:

1. What is one study strategy that you've used this term that has been helpful for you?
2. What do you use as a source of inspiration when you're feeling frustrated or discouraged?
3. What are some words of encouragement you have for your fellow classmates?

## Schedule of Topics and Assignments

Week of	Reading(s):	Agenda/Topic:	Due:
3/30	Ch. 1, Pt. 1 & 2: Sections 1.1-1.6	Essential Ideas *Register for Knewton Alta homework (through Canvas) *Register for online labs site (through Canvas) *Find an exam proctor & sign-up through Ecampus Testing	Due 4/1 at 11:59pm: Introductory Quiz (p. 1) CH 121 Pre-Assessment (p. 1) Chapter 1 - Part 1 (p. 2) Course Introductions (p. 3) Due 4/3 at 11:59pm: Chapter 1 Quiz (p. 1) Chapter 1 - Part 2 (p. 2) Lab 1 - Lab Techniques (p. 3) Due 4/5 at 11:59pm: Week 1 Extra Credit (p. 3)
4/6	Ch. 2: Sections 2.1-2.4 Begin Ch. 3, Pt. 1: Sections 3.1-3.4	Atoms, Molecules, & Ions Electronic Structure & Periodic Properties of Elements	Due 4/10 at 11:59pm: Chapter 2 Quiz (p. 1) Chapter 2 (p. 2) Lab 2 - Linear Regression (p. 3) Due 4/12 at 11:59pm: Week 2 Extra Credit (p. 3)
4/13	Finish Ch. 3, Pt. 1: Sections 3.1-3.4 Begin Ch. 3, Pt. 2: Sections 3.5-3.7	Electronic Structure & Periodic Properties of Elements	Due 4/17 at 11:59pm: Chapter 3 - Part 1 (p. 2) Due 4/19 at 11:59pm: Week 3 Extra Credit (p. 3)
4/20	Finish Ch. 3, Pt. 2: Sections 3.5-3.7 Begin Ch. 4, Pt. 1: Sections 4.1-4.5	Electronic Structure & Periodic Properties of Elements Chemical Bonding & Molecular Geometry	Due 4/24 at 11:59pm: Chapter 3 Quiz (p. 1) Chapter 3 - Part 2 (p. 2) Lab 3 - Standard Deviations (p. 3) Due 4/26 at 11:59pm: Week 4 Extra Credit (p. 3)
4/27	Finish Ch. 4, Pt. 1: Sections 4.1-4.5	Chemical Bonding & Molecular Geometry	Due 5/1 at 11:59pm: Chapter 4 - Part 1 Quiz (p. 1) Chapter 4 - Part 1 (p. 2) Lab 4 - Absorbance (p. 3) Due 5/3 at 11:59pm: Week 5 Extra Credit (p. 3)

5/4	Ch. 4, Pt. 2: Sections 4.1-4.6 Begin Ch. 5: Sections 5.1-5.3	Advanced Theories of Bonding MIDTERM EXAM	Due 5/6 at 8pm: Midterm Exam (S20) (p. 3) Due 5/8 at 11:59pm: Chapter 4 - Part 2 (p. 2)
5/11	Finish Ch. 5: Sections 5.1-5.3 Begin Ch. 6, Pt. 1: Sections 6.1-6.2	Composition of Substances & Structures	Due 5/14 at 11:59pm: Week 6 - Extra Credit - Midterm Exam Wrapper (p. 3) Due 5/15 at 11:59pm: Chapter 4 Part 2 and Chapter 5 Quiz (p. 1) Chapter 5 (p. 2) Lab 5 - NMR (p. 3) Due 5/17 at 11:59pm: Week 7 Extra Credit (p. 4)
5/18	Finish Ch. 6, Pt. 1: Sections 6.1-6.2 Begin Ch. 6, Pt. 2: Section 6.3	Composition of Substances & Structures	Due 5/22 at 11:59pm: Chapter 6 - Part 1 (p. 2) Week 8 Extra Credit (p. 4)
5/25	Finish Ch. 6, Pt. 2: Section 6.3 Begin Ch. 7: Sections 7.1, 7.3-7.4	Composition of Substances & Structures Stoichiometry of Chemical Equations	Due 5/29 at 11:59pm: Chapter 6 Quiz (p. 1) Chapter 6 - Part 2 (p. 2) Lab 6 - Combustion (p. 3) Week 9 Extra Credit (p. 4)
6/1	Finish Ch. 7: Sections 7.1, 7.3-7.4	Stoichiometry of Chemical Equations	Due 6/5 at 11:59pm: Chapter 7 Quiz (p. 2) Chapter 7 (p. 3) Lab 7 - TLC and Synthesis (p. 3) Week 10 Extra Credit (p. 4)
6/8		FINAL EXAM	Due 6/10 at 8pm: Final Exam (S20) (p. 3)

## Grading Scale

Grade	Percent Range
A	92-100
A-	89-91
B+	86-88
B	82-85
B-	79-81
C+	76-78
C	72-75
C-	69-71
D+	66-68
D	62-65
D-	60-61
F	<60

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## Course Expectations

### GRADING

Success in this course often depends on the amount of time devoted to studying the material. This is a 5-credit course, and each credit is meant to reflect about 30 hours of effort over the course of the term (this works out to ~15 hours per week in a 10-week term). We recommend that you prepare to devote ample time to the study of the course while it is in progress. Good luck!

Your point total is obtained by adding points from the exams, online homework, quizzes, and labs. These component point totals are indicated below:

Midterm Exam: 100 points

Final Exam: 200 points

Homework: 100 points

Quizzes: 90 points

Labs: 55 points

**Total: 545 points**

Remember that the midterm exam may be counted or not, depending on your final exam score.

### COMPLETION OF WORK

- Students are expected to be aware of all due dates as published in this syllabus, and complete work in a timely fashion. Late quizzes and exams are not accepted; late homework and labs may be completed for partial credit as outlined in the homework section below.
- Students are expected to complete their own work as described in each portion of the 'Course Components' section of this syllabus.

### COMMUNICATIONS

- Students are encouraged to communicate with the instructors and teaching assistants as often as questions on the material arise. Please review the Emails Guidelines document for this course.
- Students are expected to regularly check email for communications from their instructors. Students should check their OSU email account daily, or configure their account to forward to an email account that will be regularly checked.
- Course announcements will be posted at least weekly. Students should either configure Canvas to receive ASAP (or daily) notification of new announcements, or should plan on checking the announcements for the course early each week.

### TECHNICAL ASPECTS

- As an online course, it is the student's responsibility to have access to adequate computing resources to utilize course materials and complete course work.
- Multiple websites are used in completion of course materials. These sites may require students to download (free) plug-ins or otherwise configure their computer in order to function. Students should plan on accessing and configuring these sites as early as possible to allow time to seek technical support if necessary.
- Technical issues are not considered a valid reason for missing due dates/times. If you do have technical issues, please report the issue to both the relevant site's technical support and to the instructor as soon as possible. Please be as specific as possible when describing the issue, including the text of any error messages and screen captures when appropriate.

## Incompletes

Incomplete (I) grades will be granted only in emergency cases. Incompletes can only be granted to students who are passing the course at the time the incomplete is granted, so if you have a circumstance that has arisen that might prevent you from completing the coursework, please don't wait; let us know right away so that we can discuss the options available to you.

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## Course Components

### TEXT

- **Chemistry: Atoms First** is available free through OpenStax. The text can be accessed online through the link provided. It can also be downloaded as .pdf or ordered as a print copy from the OpenStax site (<https://openstax.org/details/books/chemistry-atoms-first-2e/>).

### TUTORING

Live online office hours will be available with teaching assistants in the course starting by late in Week 2. Please check the course Canvas site for information and a schedule.

### HOMEWORK

- Homework will be completed via Knewton Alta. Access to the homework site is through the course Canvas site. Instructions for registration and details about how homework grades appear in Canvas are provided in the Start Here module on the 'Course Information - Homework Information' page.
- Each homework assignment consists of several individual segments, which are linked in the chapter modules.
- Homework segments are graded based on mastery. Students who achieve 100% mastery in a segment by the stated due date (listed on the course grade sheet) will earn full points for that segment.
- For homework segments that are not complete by the due date, the percent mastery will be multiplied by the points available for that segment. Students can add to this score by completing mastery after the due date but before the final exam window opens for the class. When students do this, the final score of their assignment will be: the initial points earned plus 1/2 of the points earned after the due date.
- Students are expected to do their own work on homework assignments. Students are allowed and encouraged to seek assistance in understanding how to approach and/or calculate the answers to homework problems. Students may not, however, obtain answers for the homework problems from other sources. Students who complete homework assignments using answers obtained from other sources will be reported to Student Conduct and face penalties on their assignments, as will any student who provided them with answers.

### ONLINE LABS

- Online Chem Labs will be accessed through the online Canvas site.
- There are seven labs associated with CH121. These are graded as a combination of completeness and correctness. For a lab to be considered complete, a genuine attempt must have been made at all of the questions. Answers such as 'I don't know' or strings of characters are not sufficient for a lab to be considered complete.
- Students may do late labs for up to half credit until the final exam window opens in the course. For students to receive credit for late labs, they must contact the instructor via email to convey which lab(s) they have completed late.
- Students are expected to do their own work on laboratory assignments. Students are allowed and encouraged to seek assistance in understanding how to approach and/or calculate the answer to the questions on the labs. Students who complete laboratory assignments using answers obtained from other sources will be reported to Student Conduct and face penalties on their assignments, as will any student who provided them with answers.

### STUDY AIDS

Study aids include study guides, videos, worksheets, practice exams, etc.

- *Study guides* break down each chapter into sections, and are intended to help you group the different course components together in a coherent fashion. Study guides include a checklist of items to do while studying a particular portion of the test, provide learning objectives, and questions to think about during study of the material to help focus on important topics.
- *Video modules* provide short video tutorials or demos on numerous topics. We cannot anticipate or solve all technical access issues, as local computer configurations and internet access vary greatly. If you have trouble viewing the videos, here are a few tips that may help:
  - Paste the video link directly in your browser address bar rather than opening the access page inside of the Canvas window.
  - Be sure that you have upgraded to the most recent version of the browser software you are using.
- *Practice worksheets* are available and are keyed.
- Practice *midterm and final exams* will be posted on Canvas. These provide excellent practice, and we strongly recommend that you take a practice exam under test conditions before your actual, proctored exam.
- Study aids (study guides, practice worksheets, video modules, and practice exams) are important tools to help you understand the material in the course, but will not be collected or graded.



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## QUIZZES

- The Introductory Quiz and CH121 Pre-Assessment are located in the Week Zero Quizzes module. Chapter Quizzes are located within each Chapter's module.
- The pre-assessment for the course is located in the Week One Quizzes module. The pre-quiz consists of questions on material throughout the course; credit is awarded based on completion. The chapter module for Chapter 1 will become available after the pre-quiz has been completed. Since credit on the pre-quiz is based solely on completion, please answer the questions to the best of your ability without reading the material in advance or referring to any other materials.
- The Introductory Quiz is based on information in this syllabus and in the Course Information - Start Here module. Please review the feedback after each attempt for important information.
- Quizzes can be located in the individual chapter modules. Quizzes for each chapter are graded based on correctness. You have one attempt at each chapter quiz, so please be sure that you're prepared to take each quiz before you open it.
- Quizzes will become unavailable after the due date. Please see the grade sheet for due dates.
- It is strongly recommended that you record your calculations for the quiz questions, and be sure that you understand how to arrive at the correct answer for each quiz question.
- Students are expected to do their own work on quizzes. Students may not obtain answers for the quiz questions from other sources. Students who complete quizzes using answer obtained from other sources will be reported to Student Conduct and face penalties on their quizzes, as will any student who provides another student with answers.

## MIDTERM EXAM

- *The midterm exam requires a proctor.* Your proctor must be registered with Ecampus; you should set this up as soon as possible, or you will not be able to take your midterm. Your professor cannot do this for you. Information about acceptable proctors and a proctor registration form can be found at the Ecampus Proctoring web page (<https://ecampus.oregonstate.edu/services/proctoring/>).
- **The midterm exam is taken via Canvas. You will need to take the exam on a computer with reliable internet access.**
- The midterm exam must be taken during the time period specified on the **Grade Sheet** page.
- The midterm exam cannot be retaken and cannot be stopped once started.
- The midterm exam must be completed within 80 minutes. The exam will autosubmit at the end of this 80-minute period.
- Failure to arrange for an approved proctor is not a valid excuse for not taking the midterm exam. **Any student who does not have an approved proctor by the Friday before the exam window will not be able to take the exam, and will receive a non-replaceable score of 0 for that exam.**
- A missed exam will receive a score of zero.
- Allowed materials:
  - A scientific calculator (programmable calculators, graphing calculators, and cell phone-based calculators will **not** be allowed)
  - A printed exam cover sheet and periodic table (located in the 'Course Documents' module in Canvas)
  - Blank scratch paper, pens, and/or pencil. Students using ProctorU as a proctor will need to use a small dry erase board in lieu of scratch paper.
  - One 3-by-5 inch card with handwritten or typed notes on **one side only**.
  - Any use of materials not on this list (including websites or other online resources) will result in a non-replaceable score of 0 on the exam, and will be reported to Student Conduct as an incident of academic dishonesty.
- The multi-day exam window is intended to accommodate a wide range of students schedules. Please schedule your exam as early as possible in this window to allow yourself time to address any technical or proctoring issues that might arise.
- For the duration of the exam window, students may not communicate contents of the exam or exam answers to any other individual in any format. Students also may not receive such information prior to taking their exam. Any violations of this will be reported to Student Conduct and result in exam penalties.

## FINAL EXAM

- *The final exam requires a proctor.* Your proctor must be registered with Ecampus; you should set this up as soon as possible, or you will not be able to take your final. Your professor cannot do this for you. Information about acceptable proctors and a proctor registration form can be found at the Ecampus Proctoring web page (<https://ecampus.oregonstate.edu/services/proctoring/>).
- **The final exam is taken via Canvas. You will need to take the exam on a computer with reliable internet access.**
- The final exam must be taken during the time period specified previously on the **Grade Sheet**. The final will only be available on the course website during this time period; there are no make-up exams or alternate test times.
- The final exam is cumulative and is worth 200 points. It will be weighted more heavily toward material covered after the midterm.
- You will have one hour and 50 minutes (110 minutes) to take the exam. The exam will autosubmit at the end of this period.
- Failure to arrange for an approved proctor is not a valid excuse for not taking the final exam. **Any student who does not have an approved proctor by the Friday before the exam window will not be able to take the exam, and will receive a non-replaceable score of 0 for that exam.**
- A missed exam will receive a score of zero.



- Allowed materials:
  - A scientific calculator (programmable calculators, graphing calculators, and cell phone-based calculators will **not** be allowed)
  - A printed exam cover sheet and periodic table (located in the 'Course Documents' module in Canvas)
  - Blank scratch paper, pens, and/or pencil. Students using ProctorU as a proctor will need to use a small dry erase board in lieu of scratch paper.
  - One 3-by-5 inch card with handwritten or typed notes on **one side only**.
  - Any use of materials not on this list (including websites or other online resources) will result in a non-replaceable score of 0 on the exam, and will be reported to Student Conduct as an incident of academic dishonesty.
- The multi-day exam window is intended to accommodate a wide range of student schedules. Please schedule your exam as early as possible in this window to allow yourself time to address any technical or proctoring issues that might arise.
- For the duration of the exam window, students may not communicate contents of the exam or exam answer to any other individual in any format. Students also may not receive such information prior to taking their exam. Any violations of this will be reported to Student Conduct and result in exam penalties.

If you do better on the final (as a percentage score) than on the midterm exam, only the percentage score for the final will be counted. In this case, it will be scaled to a score of 300 points for your 'Exams' score. This scoring method rewards improved performance. This does not apply to replacement of zero scores on midterm exams that were missed due to an unexcused reason.

## Expectations for Student Conduct

Student conduct is governed by the university's policies, as explained in the Student Conduct Code (<https://beav.es/codeofconduct> (<https://beav.es/codeofconduct/>)). Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the university's regulations regarding civility.

## Guidelines for a Productive and Effective Online Classroom

Students are expected to conduct themselves in the course (e.g., on discussion boards, email) in compliance with the university's regulations regarding civility. Civility is an essential ingredient for academic discourse. All communications for this course should be conducted constructively, civilly, and respectfully. Differences in beliefs, opinions, and approaches are to be expected. In all you say and do for this course, be professional. Please review the discussion board guidelines posted in Canvas, and bring any communications you believe to be in violation of this class policy to the attention of your instructor.

## Academic Integrity

Integrity is a character-driven commitment to honesty, doing what is right, and guiding others to do what is right. Oregon State University Ecampus students and faculty have a responsibility to act with integrity in all of our educational work, and that integrity enables this community of learners to interact in the spirit of trust, honesty, and fairness across the globe.

Academic misconduct, or violations of academic integrity, can fall into seven broad areas, including but not limited to: cheating; plagiarism; falsification; assisting; tampering; multiple submissions of work; and unauthorized recording and use.

It is important that you understand what student actions are defined as academic misconduct at Oregon State University. The OSU Libraries offer a tutorial on academic misconduct (<https://guides.library.oregonstate.edu/c.php?g=286121&p=3896378>), and you can also refer to the OSU Student Code of Conduct (<https://beav.es/codeofconduct/>) and the Office of Student Conduct and Community Standard's website (<https://studentlife.oregonstate.edu/studentconduct/student-info/>) for more information. More importantly, if you are unsure if something will violate our academic integrity policy, ask your professors, GTAs, academic advisors, or academic integrity officers.

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## Proctored Exams

This course requires that you take exams under the supervision of an approved proctor. Proctoring guidelines and registration for proctored exams are available online through the Ecampus testing and proctoring website. It is important to submit your proctoring request as early as possible to avoid delays.

## Technical Assistance

If you experience any errors or problems while in your online course, contact 24-7 Canvas Support through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging into a course, contact the IS Service Desk for assistance. You can call (541) 737-8787 or visit the IS Service Desk (<https://oregonstate.teamdynamix.com/TDClient/1935/Portal/Requests/ServiceDet/?ID=22911>) online.

## Inclusivity

In an ideal world, science would be objective. However, science is a human endeavor and is historically built on a small subset of privileged voices.

We acknowledge that it is possible that there may be both overt and covert biases in the material due to the lens with which it was written, even though the material is primarily of a scientific nature. Integrating a diverse set of experiences is important for a more comprehensive understanding of science. Please contact us if you have any suggestions to improve the quality of the course materials.

We (like many people) are still in the process of learning about diverse perspectives and identities. If something was communicated in the class (by anyone) that made you feel uncomfortable, please talk to us about it. As a participant in course discussions, you should also strive to honor the diversity of your classmates. Furthermore, we would like to create a learning environment for our students that supports a diversity of thoughts, perspectives, and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, etc.). To help accomplish this:

- **Pronouns:** If you have a name and/or set of pronouns that differ from those that appear in your official records, please let us know!
- **Religious Observances:** Please let your instructor know if your class deadlines interfere with any of your religious and/or spiritual practices so that we can make necessary arrangements.
- **Statement of Accessibility:** All students have the right to learn from and participate in the classroom. We designed this course with accessibility in mind, and are always open to hearing ways to make it more inclusive and accessible. Please contact your instructor if you have accessibility concerns.

## Statement Regarding Students with Disabilities

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval, please contact DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

### ACCESSIBILITY OF COURSE MATERIALS

All materials used in this course strive to be fully accessible. Since some materials and resources are provided by external vendors, the accessibility statements from those vendors is also provided. If you require accommodations, please contact Disability Access Services (DAS).

Canvas, the learning management system through which this course is offered, provides a vendor statement certifying how the platform is accessible to students with disabilities. Please also review the accessibility statements from OpenStax (<https://openstax.org/accessibility-statement/>), Knewton Alta (<https://www.knewton.com/accessibility/>), and SmartSparrow (<https://www.smartsparrow.com/solutions/highered/>).

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## Ecampus Reach Out for Success

University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it's important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources that assist with wellness and academic success.

Ecampus students are always encouraged to discuss issues that impact your academic success with the Ecampus Success Team. Email [ecampus.success@oregonstate.edu](mailto:ecampus.success@oregonstate.edu) to identify strategies and resources that can support you in your educational goals.

If you feel comfortable sharing how a hardship may impact your performance in this course, please reach out to me as your instructor.

### For mental health

Learn about counseling and psychological resources for Ecampus students. If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

### For financial hardship

Any student whose academic performance is impacted due to financial stress or the inability to afford groceries, housing, and other necessities for any reason is urged to contact the Director of Care for support ([studentassistance@oregonstate.edu](mailto:studentassistance@oregonstate.edu) or 541-737-8748).

## LIFE OUTSIDE THE CLASSROOM

We have tried to account for the fact that your life outside the classroom may impact your participation at times in course design. Regardless of these built-in safety guards, if you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to communicate with your instructor. We want to be a resource for you. If you prefer to speak with someone outside of the course, the Dean of Student Life is an excellent resource.

## Student Evaluation of Courses

During Fall, Winter, and Spring term The online Student Evaluation of Teaching system opens to students the Wednesday of week 8 and closes the Sunday before Finals Week. Students receive notification, instructions and the link through their ONID. They may also log into the system via Online Services. Course evaluation results are extremely important and used to help improve courses and the hybrid learning experience for future students. Responses are anonymous (unless a student chooses to "sign" their comments, agreeing to relinquish anonymity) and unavailable to instructors until after grades have been posted. The results of scaled questions and signed comments go to both the instructor and their unit head/supervisor. Anonymous (unsigned) comments go to the instructor only.

## Please Note

This syllabus is subject to change with notice from the instructor. For students registered in this section, there is additional content in the syllabus, which can be accessed through Canvas (<http://oregonstate.instructure.com>) at the start of term.