Course Description

Provides a foundation in science and creates context for a variety of aspects of daily life ranging from American jurisprudence to technological advancement to modern management practice. Classical Physical Sciences is a stand-alone course in a two-course offering in the physical sciences.

Prerequisites

None

Course Textbook


Course Learning Objectives

Upon completion of this course, students should be able to:

1. Identify the components of a valid measurement.
2. Explain what information a given measurement does and does not convey.
3. Describe the scientific method.
4. Apply the scientific method to everyday (non-scientific) contexts.
5. Analyze Newton’s Laws of Motion.
7. Compute time, distance, and speed of objects in motion.
8. Discuss the concepts of work & energy.
10. Analyze simple circuits.
11. Discuss magnetism as it relates to electricity.
12. Design experiments and demonstrations to illustrate course topics.

Credits

Upon completion of this course, the students will earn three (3) hours of college credit.

Course Structure

1. **Unit Learning Objectives**: Each unit contains learning objectives that specify the measurable skills and knowledge students should gain upon completion of the unit.
2. **Unit Summaries**: Each unit contains an overview, or summary, of the information to be covered.
3. **Reading Assignments**: Each unit contains reading assignments from one or more chapters from the textbook.
4. **Key Terms:** Key Terms are intended to guide students in their course of study. Students should pay particular attention to Key Terms as they represent important concepts within the unit material and reading.

5. **Learning Activities:** (non graded) Details are available in each course unit.

6. **Discussion Boards:** Discussion Boards are a part of all CSU term courses. Information and specifications regarding these assignments are provided in the Academic Policies listed in the Course Menu bar.

7. **Assessments:** This course contains eight unit assessments, one to be completed at the end of each unit.

8. **Ask the Professor:** This communication forum provides you with an opportunity to ask your professor general or course content related questions.

9. **Student Break Room:** This communication forum allows for casual conversation with your classmates.

**Communication Forums**

These are non-graded discussion forums that allow you to communicate with your professor and other students. Participation in these discussion forums is encouraged, but not required. You can access these forums with the buttons in the Course Menu. Instructions for subscribing/unsubscribing to these forums are provided below.

[Click here for instructions on how to subscribe/unsubscribe and post to the Communication Forums.](#)

**Ask the Professor**

This communication forum provides you with an opportunity to ask your professor general or course content questions. Questions may focus on Blackboard locations of online course components, textbook or course content elaboration, additional guidance on assessment requirements, or general advice from other students.

Questions that are specific in nature, such as inquiries regarding assessment/assignment grades or personal accommodation requests, are NOT to be posted on this forum. If you have questions, comments, or concerns of a non-public nature, please feel free to email your professor. Responses to your post will be addressed or emailed by the professor within 48 hours.

Before posting, please ensure that you have read all relevant course documentation, including the syllabus, assessment/assignment instructions, faculty feedback, and other important information.

**Student Break Room**

This communication forum allows for casual conversation with your classmates. Communication on this forum should always maintain a standard of appropriateness and respect for your fellow classmates. This forum should NOT be used to share assessment answers.

**Grading**

- Discussion Board (8 @ 2% each) = 16%
- Unit Assessments (8 @ 10.5% each) = 84%
- Total = 100%

**Course Schedule/Checklist (PLEASE PRINT)**

The following pages contain a printable Course Schedule to assist you through this course. By following this schedule, you will be assured that you will complete the course within the time allotted.
By following this schedule, you will be assured that you will complete the course within the time allotted. Please keep this schedule for reference as you progress through your course.

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<td><strong>Read:</strong></td>
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<td>☐ Appendix I: The Seven Base Units of the International System of Units</td>
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<td><strong>Discuss:</strong></td>
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## Unit III
**Properties of Matter (Atoms and the Nucleus)**

### Review:
- Unit Study Guide

### Read:
- Chapter 9: Atomic Physics
- Chapter 10: Nuclear Physics
- **Supplemental Reading:**
  - Chapter 9 PowerPoint
  - Chapter 10 PowerPoint

### Discuss:
- Discussion Board Response: Submit your response to the Discussion Board question by Saturday, Midnight (Central Time)
- Discussion Board Comment: Comment on another student’s Discussion Board response by Tuesday, Midnight (Central Time)

### Submit:
- Assessment by Tuesday, Midnight (Central Time)

Notes/Goals:

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## Unit IV
**Elements of Chemistry**

### Review:
- Unit Study Guide

### Read:
- Chapter 11: The Chemical Elements
- Chapter 12: Chemical Bonding
- Chapter 13: Chemical Reactions
- **Supplemental Reading:**
  - Chapter 11 PowerPoint
  - Chapter 12 PowerPoint
  - Chapter 13 PowerPoint

### Discuss:
- Discussion Board Response: Submit your response to the Discussion Board question by Saturday, Midnight (Central Time)
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### Submit:
- Assessment by Tuesday, Midnight (Central Time)

Notes/Goals:
# PHS 1110, Principles of Classical Physical Science

## Course Schedule

### Unit V: Work and Energy

**Review:**
- Unit Study Guide

**Read:**
- Chapter 4: Work and Energy
- Supplemental Reading:
  - Chapter 4 PowerPoint

**Discuss:**
- **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, Midnight (Central Time)
- **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, Midnight (Central Time)

**Submit:**
- **Assessment** by Tuesday, Midnight (Central Time)

### Unit VI: Temperature and Heat

**Review:**
- Unit Study Guide

**Read:**
- Chapter 5: Temperature and Heat
- Supplemental Reading:
  - Chapter 5 PowerPoint

**Discuss:**
- **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, Midnight (Central Time)
- **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, Midnight (Central Time)

**Submit:**
- **Assessment** by Tuesday, Midnight (Central Time)

### Notes/Goals:

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**PHS 1110, Principles of Classical Physical Science**  
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# Course Schedule

## Unit VII
### Waves and Optics

**Review:**
- Unit Study Guide

**Read:**
- Chapter 6: Waves
- Chapter 7: Optics and Wave Effects
- **Supplemental Reading:**
  - Chapter 6 PowerPoint
  - Chapter 7 PowerPoint

**Discuss:**
- **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, Midnight (Central Time)
- **Discussion Board Comment:** Comment on another student’s Discussion Board response by Tuesday, Midnight (Central Time)

**Submit:**
- **Assessment** by Tuesday, Midnight (Central Time)

**Notes/Goals:**

## Unit VIII
### Electricity and Magnetism

**Review:**
- Unit Study Guide

**Read:**
- Chapter 8: Electricity and Magnetism
- **Supplemental Reading:**
  - Chapter 8 PowerPoint

**Discuss:**
- **Discussion Board Response:** Submit your response to the Discussion Board question by Saturday, Midnight (Central Time)
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