

De Anza College

47523 PHYS 4C Section: 40Z

Spring 2022

**Physics 4C: Fluids, Waves, Thermodynamics, Optics & Lab (6 units)**

Online Course: Lecture: M & W 5:30pm - 7:45pm      Lab: 7:55 pm – 10:45 pm M or W

*This Course will be held by Zoom:* <https://seq-org.zoom.us/j/4948027974>

*Instructor: James Lincoln* Email: [LincolnJames@fhda.edu](mailto:LincolnJames@fhda.edu)

*Office Hours:* Tues 6:15pm – 7:15pm or by appointment

Pre-Requisite Courses: Physics 4A – Mech , Physics 4B – E&M , Math 1D – Integral Calculus

---

---

**Course Content**

**Course Text: Serway & Jewett, Physics for Scientists and Engineers, 10<sup>th</sup> Edition**

Chapter 14      Fluids and Pressure  
Chapters 15 - 18      Oscillations and Waves  
Chapters 19 - 22      Thermodynamics and Molecular Heat  
Chapters 35 - 38      Optics and Light

**Supplemental: Open Stax Online Free eBook**

Chapters 11 - 12      Fluids and Pressure  
Chapters 16 - 17      Oscillations and Waves  
Chapters 13 - 15      Thermodynamics and Molecular Heat  
Chapters 25 - 27      Optics and Light

***Methods of Evaluation:***

***Grading: A total of 1000 points can be earned in this class.***

- Homework:                      150 points      15%
- Quizzes:                              155 points      15.5%
- Exams:                                      400 points      40%
- Threaded Discussions:      135 points      13.5%
- Lab reports/Project:              160 points      16%

***Grading Scale:***

○ A	90-100%	> 900 points	Superior.
○ B	80-89.9%	800 – 899 points	Above average. Meets all course requirements
○ C	70-79.9%	700 – 799 points	Average. Meets basic course requirements
○ D	55-69.9%	550 – 699 points	Below average.
○ F	< 54%	< 549 points	Fails to meet minimum course requirements

***Unit Exams:***

There will be four Unit Exams, including the final. Each unit exam will be worth 100 points.

**Student Learning Outcome(s):**

\*Critically examine new, previously un-encountered problems, analyzing and evaluating their constituent parts, to construct and explain a logical solution utilizing, and based upon, the fundamental laws of waves, fluids, optics, and thermodynamics.

\*Gain confidence in taking precise and accurate scientific measurements, with their uncertainties, and then with calculations from them, analyze their meaning as relative, in an experimental context, to the verification and support of physics theories.