BOISE STATE UNIVERSITY
CONCURRENT ENROLLMENT

Boise State University – Timberline High School
Concurrent Enrollment Program
CS 133 Foundations of Data Science, 3 Credits
Year-Long 2025-26

Instructor: Pluska
Phone: 208-4722784
Office Hours: M, Tu, W, Th @ lunch
Office Location: Room 401A
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Textbook: Computational and Inferential Thinking The Foundations of Data Science, by Ani Adhikari and John DeNero (free online)

Learning Objectives

Upon completion of this course, students should:

- Apply the basics of programming for data science using Python
- Apply knowledge of Python programming to novel situations
- Apply inferential thinking to real-world phenomenon by
  - Thinking computationally to make use of the data
  - Analyzing the data to understand the phenomenon
  - Making inferences based on that analysis

Assessment of Learning Objectives

Ticket out the Door: 10%
Projects: 20%
Programming labs 70%

Grading: Course must follow University grading standards

Letter Grade	Percent
A+	97-100
A	92-96
A-	90-91
B+	87-89
B	82-86
B-	80-81
C+	77-79

Letter Grade	Percent
C	72-76
C-	70-71
D+	67-69
D	62-66
D-	60-61
F	below 60

Student Code of Conduct:

Refer to Boise State's Student Code of Conduct for definitions of cheating, plagiarism, and other forms of academic dishonesty as well as policies and procedures for handling such cases. The Code of Conduct is found at https://www.boisestate.edu/academic-integrity/for-students/

Course Topics/Schedule

Each week I will introduce a new concept using guided notes. The accompanying ticket out the door will be due by the end of the day during which the notes were presented.

Each week we will complete a lab on the concepts introduced in the notes. Labs are due by the end of the day on the Friday of the week during which they were assigned.

A final project will be assigned at the end of each quarter.

This course will cover the following topics:

- Python basics
- Simple data visualization (graphs and tables)
- Distributions and random sampling
- Testing statistical hypotheses
- Estimation
- Prediction
- Comparison, causality, and decisions