

Introduction to Python for Data Analytics

Fall 20XX

Course Information

Important Dates

- Last Day to Drop: November 3rd
- P/NC Date: December 1st
- Final Exam: December 8th, 17:00-19:30

Student Resources and Policy Information

- Click on the following link or QR code for resources to support you as a TCU student: [policies](#)



Catalog Description: This course will introduce Python data structures and ways to manipulate data. Students will design, implement, and test Python programs. This course will also give the students a working knowledge of how to use Python to perform data analysis.

Prerequisite(s): None.

Course Materials: [TCU Online](#), and [Wiley: zyBooks](#) (there is a fee of \$89 for zyBooks access)

Learning Outcomes: Upon successful completion of this course, students will be able to ...

- Write Python programs that utilize strings, lists, tuples, and dictionaries;
- Write Python programs with basic control structures, functions, and classes;
- Write Python programs to implement simple algorithms;
- Utilize data analysis tools (e.g., NumPy and Pandas);
- Utilize data visualization tools (e.g., Matplotlib);
- Analyze simple real-world problems and develop appropriate program solutions.

Course Assessments, Extra Credit, and Late Work Policies

- **50% Zybooks Based Activities:** Participation (ungraded learning questions, 10%), Challenge (graded learning questions, 15%), and Lab (code snippets or full programs, 25%).
- **50% Exams:** There will be one mid-term exam (20%) on approximately the 10th week and a final exam (30%).
- **Attendance:** Bonus of up to two overall grade points for in-class attendance.
- **Late Work:** Zybooks homework (Zybooks Participation, Challenge, and Lab Activities) will not be accepted after the assigned due date. (The grade assigned will be zero.)
- **Grading Concerns:** Requests for re-evaluation of points on exams, assignments, and projects must be returned to the instructor within one week, and accompanied by a brief written description of the grading error you believe was made. After this time, grades are final. Reevaluations will not be done in the classroom, before, during, or after class. Resubmission for re-evaluation subjects the entire assignment for review. This means that if an error was made in your favor, you may lose points when re-submitting.

Assignments	Percentage or Points
Zybooks Activities	50%
Mid-Term Exam	20%
Final Exam	30%
Total	100%
Attendance Bonus	Up to 2 points on final grade

Participation, Engagement and Attendance

- **Student Privacy:** Because it is considered an infringement on student privacy for me to have access to student medical records, I cannot accept medical documentation to justify absences. If you have a legitimate reason for your absence and want to provide verification, please access the Absence Documentation Form from the Dean of Students Office [here](#).
- **Distinction between Excused Absences and Verified Absences:** Excused Absences or Official University Absences are absences described in the Official University Absence Policy and include the following: Title IX related issues, military leave, holy days, and university related absences. As faculty we may not penalize students for these absences and must allow for the completion of assignments and exams within a reasonable amount of time after the absences. Beyond these, faculty retain all discretion for consideration of a student's absence, including verified absences.

Letter Grade Distribution

>= 93.00	A	87.00 - 89.99	B+	77.00 - 79.99	C+	67.00 - 69.99	D+
90.00 - 92.99	A-	83.00 - 86.99	B	73.00 - 76.99	C	63.00 - 66.99	D
<= 59.99	F	80.00 - 82.99	B-	70.00 - 72.99	C-	60.00 - 62.99	D-

- Numerical grades will be rounded to the nearest hundredth.

Course Schedule and Topics (Subject to change):

WEEK	DATES	TOPIC
1	8/18	Intro to Python
	8/20	Intro to Python
2	8/25	Variables and Expressions
	8/27	Variables and Expressions
3	9/1	Labor Day - No Class
	9/3	Data Structures/Types
4	9/8	Data Structures/Types
	9/10	Branching
5	9/15	Branching
	9/17	Loops
6	9/22	Loops
	9/24	Functions
7	9/29	Functions
	10/1	Functions
8	10/6	Strings
	10/8	Mid Term Exam Review
9	10/13	Mid Term Exam
	10/15	Lists and Dictionaries
10	10/20	Lists and Dictionaries
	10/22	Lists and Dictionaries
11	10/27	Classes
	10/29	Exceptions
12	11/3	Numpy
	11/5	Files
13	11/10	Whiteboard Exercise (Stadium)
	11/12	Python for Data Science - Pandas
14	11/17	Python for Data Science - Pandas
	11/19	Whiteboard Exercise (Capstone)
15	11/24	Thanksgiving Break
	11/26	Thanksgiving Break
16	12/1	Final Exam Review
	12/3	Final Exam Review
17	12/8	Final Exam - 17:00-19:30