Tennessee Tech University Department of Computer Science CSC 1200

Principles of Computing

Asynchronous, ONLINE, Credits 3, Summer 2024

Instructor Information

Instructor's Name: Travis Lee

Office: PRSC 414

Office Hours: TBD

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Campus Email: tlee@tntech.edu - I will check email regularly throughout business hours and should reply

within 24 hours of receiving email, excluding weekends and holidays.

Preferred Communication Platform: Microsoft Teams - Link to class Team

Course Information

Prerequisites: None

Texts and References

Textbook: Think Python by Allen B. Downey (ISBN 978-1491939369) Available for free download: https://www.greenteapress.com/thinkpython/thinkpython.pdf

Course Welcome and Description

This course introduces the field of Computer Science. Topics include computing as a creative activity, abstraction, data and information, algorithms, programming, the Internet, and global impacts of computing.

Course Objectives/Student Learning Outcomes

- 1. Students will be able to identify different types of programming languages available and explain possible use cases for them.
- 2. Students will be able to write introductory level, procedural programs in Python.
- 3. Students will be able to apply basic testing and debugging to procedural programs.
- 4. Students will be able to create modular code in the form of functions.
- 5. Students will be able to explain what the binary number system is and how it is used in computing.
- 6. Students will be introduced to basic aspects of computer science and different disciplines within the field.

Major Teaching Methods

Recorded lectures, demonstrations, computer "labs" and programming projects

Course Navigation

All assignments will be accessible under the 'Assignments' tab in iLearn.

All guizzes and tests will be accessible under the 'Quizzes' tab in iLearn.

All content (slide decks, lab documents, and extra material) can be found under 'Content' in the corresponding module.

Special Instructional Platform/Materials [e.g. laptop, etc.]

- iLearn (announcements, course documents, grades)
- Microsoft Teams
- Locally available computer (school or personal) with internet access

Topics to be Covered

- Introduction to Computer Science
- Introduction to Binary
- Introduction to Python
- If-statements and relational operators in Python
- Loops in Python
- Functions in Python
- Python Lists and Dictionaries
- Multi-Dimensional Lists in Python
- File Input/Output in Python
- Introduction to different fields of Computer Science

Course Breakdown

Each assignment's weight is evenly distributed inside the respective category.

- 5 Homework assignments and labs (20%)
- 3 Quizzes (20%)
- 2 Programming Projects (30%)
- 3 Exams (30%)

Each assignment (programming project and lab) will be graded by either the instructor or the teaching assistant assigned to the course. These coding assignments will be graded using unit tests and evaluations will be given on the successful run, readability, and overall correctness of each assignment.

There will be 2 major programs that the student will write during this course. Each will represent a major milestone in the student's coding ability. Program 1 will cover conditionals and minor looping. Program 2 will cover lists and dictionaries.

Grading Scale

| | Letter Grade | Grade Range |
|---|--------------|--------------|
| | Α | 90 - 100 |
| | В | 80 - 89 |
| • | С | 70 - 79 |
| • | D | 60 - 69 |
| • | F | 59 and below |

Course Policies

Special Notes

The instructor reserves the right to modify the syllabus and schedule as necessary to accommodate course needs.

Student Academic Misconduct Policy

Maintaining high standards of academic integrity in every class at Tennessee Tech is critical to the reputation of Tennessee Tech, its students, alumni, and the employers of Tennessee Tech graduates. The Student Academic Misconduct Policy 217 describes the definitions of academic misconduct and policies and procedures for addressing Academic Misconduct at Tennessee Tech. Effective July 20, 2023, the university's student academic misconduct policy has been revised and is published at Policy Central. Students are expected to review and read this policy as part of their orientation to the syllabus and the course expectations.

Attendance Policy

Given this is an asynchronous course, students are expected to view all recorded lectures and submit all assignments by the scheduled due dates. Students who are unable to participate (submit assignments and take exams) in class for an extended period of time due to an emergency/extenuating circumstance (i.e., medical illness, hospitalization, death in the family/bereavement, military or legal obligation), may contact the Office of the Vice President for Student Affairs at studentaffairs@tntech.edu to request an absence notification.

Class Participation and Netiquette

Students are expected to make use of locally given class time to complete assignments on time. Due dates for all assignments, quizzes, and tests are posted in iLearn at the start of the course. Class discussion is not required for the course but is encouraged through the Microsoft Team designated for the course. While using Tennessee Tech communication platforms or technology that connects to any campus infrastructure, Tennessee Tech's policy 801 is to be followed – technology acceptable use. Along with this policy, please remember the following:

• Do not be rude to others

- Act like you would in a face-to-face setting
- Do not post things that you do not want others to see
- Do not use all CAPS, as this is shouting
- Watch your tone, this is text and not verbal communication
- Do not share code online unless with the instructor/teaching assistant

Assignments and Related Policy

All assignments will be submitted online via iLearn. All assignments (labs/programs) have a 2- day late submission window where 10% will be deducted per day after the due date (maximum of 20%). Any assignments submitted after this 2-day period will be counted as a zero except for circumstances approved by the instructor.

Grade Changes

All grade changes will be up to the instructor. If a grade is being disputed, it must be done so within a 2-week period of receiving the grade. If an assignment grade is being disputed, the entire assignment will be regraded, not just a partial re-grade.

Disability Accommodation

Students with a disability requiring accommodation should contact the accessible education center (AEC). An accommodation request (AR) should be completed as soon as possible, preferably by the end of the first week of the course. The AEC is located in the Roaden University Center, room 112; phone 931-372-6119. For details, view Tennessee Tech's policy 340.

Additional Resources

Technical Help

If you are experiencing technical problems, visit the ITS Helpdesk for assistance. If you are having trouble with one of the instructional technologies (i.e. Zoom, Teams, Qualtrics, Respondus, or any technology listed here) visit the Center for Innovation in Teaching and Learning (CITL) website or call 931-372-3675 for assistance.

For accessibility information and statements for our instructional technologies, visit the CITL's Learner Success Resource page.

Tutoring

The university provides free tutoring to all Tennessee Tech students. Tutoring is available for any class or subject, as well as writing, test prep, study skills, and resume support. Appointments are scheduled, so contact the Learning Center website for more information.

Health and Wellness

Counseling Center

The Counseling Center offers brief, short-term, solution-focused therapeutic interventions for Tennessee Tech University students. The staff of the Counseling Center is available to assist students with their personal and social concerns in hopes of helping them achieve satisfying educational and life experiences. To learn more or schedule an appointment, visit the Counseling Center website.

Health Services

Health Services offers high-quality, affordable care that is accessible and promotes the health and wellness of our Tennessee Tech community. Visit the Health Services website to learn more.

Pandemic Protocols

Each student must take personal responsibility for knowing and following any University protocol related to pandemics and other public health events. Students are expected to follow all directives published by Tennessee Tech on its official webpage. As conditions related to the COVID-19 pandemic change, the University's COVID-19 protocols are also likely to change. Students are expected to monitor the University's official webpage to stay up to date on public health protocols.