CSCI 1170 – Computer Science I

4 credit hours (3 lecture hours + 2 lab hours)

INSTRUCTOR INFORMATION

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COURSE INFORMATION

Description

Computer programming using a high-level language. Language constructs and simple data structures, such as strings and lists, are covered. Emphasis on problem solving using the language and principles of structured software development.

Objectives

The primary goal of this course is the development of **program design** and **program construction** skills. Upon successful completion of this course, a student will be able to demonstrate the following learning outcomes:

- Apply functional decomposition in the design of a program.
- Develop an algorithmic solution to solve a problem using sequence, selection, and iteration.
- Use simple data structures, such as arrays and strings, in an algorithmic solution.
- Demonstrate the use of procedural abstraction through the design and implementation of effective procedures and functions.
- Construct a readable, well documented, and syntactically correct Python program.
- Explain the syntax and semantics of a target set of Python language elements.
- Use UNIX tools to edit, compile, link, and execute a program.
- Predict the state changes of a program in execution and trace its execution.

Topics Covered

Topics related to *program design* include functional decomposition, structured programming, algorithm design, procedural abstraction, and the application of simple data structures. Topics related to *program construction* include the Python programming language, UNIX tools, programming language concepts, and program development techniques.

Prerequisites

Sufficient background in algebra and trigonometry (e.g., MATH 1730).

COURSE MATERIALS

Required Textbook

Starting Out with Python, 5th Edition (2021, ISBN-13: 9780135929032) by Tony Gaddis. Textbooks may be ordered online at Phillips Bookstore. Alternatively, eTextbook options are available from sources like VitalSource and Pearson. (Note: If you have a used book, don't worry if the silver wax strip on the inside cover has been scratched off---we will provide access to the textbook's digital resources.)
Chapters covered: 1, 2, 3, 4, 5, 6, 8, 7, and 12 (in that order).

Required Equipment

To take this course you must have a decent broadband internet connection (at least 2 Mbps up/down) both for Zoom and to connect to the Computer Science Department UNIX servers. (You can check your bandwidth by using the https://www.speakeasy.net/speedtest website.) You will need a computer running Windows, MacOS, or Linux. *A Chromebook, Android device, or Apple iOS/iPadOS device is NOT sufficient.* In addition, you will need a microphone, a webcam (built-in or USB plug-in), and speakers (or headphones).

ASSESSMENT AND GRADING

Grading Procedure

Grade Item	Percentage
Open Lab Assignments (OLA): Exercises & Projects	25%
Closed Lab Assignments (CLA)	10%
Quizzes	5%
Exam 1	20%
Exam 2	20%
Comprehensive Final Exam	20%

Two in-term exams will be given. No makeup exams will be given. However, in the event you have an excused absence that causes you to miss exam 1, then your exam 2 score (suitably scaled) will be used in its place. Similarly, if you miss exam 2 due to an excused absence, then your final exam score (suitably scaled) will be used. A missed final exam will count as zero.

Grading Scale

The conventional grading scale is: A (90-100);   B+ (87-89); B (83-86); B- (80-82);   C+ (77-79); C (73-76); C- (70-72);   D (60-69);   F (below 60);   (averages are rounded to the nearest integer). Course grade assigned is subject to the following two conditions: (1) The highest course grade attainable if scoring less than **73%** on the Final Exam is **C-** and (2) the highest course grade attainable if missing four or more open lab assignments (OLAs) or failing closed lab (CLA) is **C-**.

Incomplete Grades

Incomplete (**I**) grades are given rarely and only in extenuating circumstances. The Academic Policies and Procedures section of the MTSU Undergraduate Catalog states: "The grade **I** indicates that the student has not completed all course requirements because of illness or other uncontrollable circumstances, especially those which may occur toward the end of the term. Mere failure to make up work or turn in required work on time does not provide the basis for the grade of **I** unless the extenuating circumstances noted above are present for reasons acceptable to the instructor."

Closed Labs

The closed lab portion of this course gives students the opportunity to learn and practice the skills needed to do open labs and be successful on exams. Unlike your open lab assignments, which you must work on independently, closed lab assignments (CLAs) give you the opportunity to discuss problems with classmates and seek assistance from the instructor or the lab assistant. You are expected to attend all closed labs. See Handout 2: Closed Lab Information for additional information.

Open Labs

Open lab assignments (OLAs) are, quite simply, homework. Open lab assignments are classified by the instructor as either *exercises* or *projects*.

- **EXERCISES**: Homework assignments that are classified as *exercises* have explicit deadlines: both date and time. NO EXERCISE WILL BE ACCEPTED LATE.
- **PROJECTS**: Homework assignments that are classified as *projects* are due by midnight (defined to be 11:59pm) of the day due. Late projects will be accepted subject to the following grade reduction schedule: 10 points one day late, 20 points two days late, and 30 points three days late. Four days late and after, projects can no longer be accepted.

Feedback

- Assignments will be submitted and returned via either the Gus handin mechanism or via D2L's Dropbox and will not be accepted via email.

PARTICIPATION

Class Participation

- This four credit hour course has both lectures and closed labs and is being offered in a real-time "remote learning" format. This course uses Zoom to hold live synchronous online class sessions plus additional tools (e.g., MobaXterm) to support the closed lab portions. Section 004 meets 12:40pm to 3:15pm and Section 005 meets 4:10pm to 6:45pm, Mondays and Wednesdays, starting Monday August 23rd. **On each day of class, you will need to be logged in and participating online during the entire 2.75 hour block of time.** (We do take some "bio-breaks"!)
- Attendance is required and absences do not excuse one from class responsibilities. If you miss a class, be sure to get the missed material from a classmate. Please be on time to class sessions *as latecomers might not be able to join the videoconference*.
- Recordings of class sessions may occur.
- Per the MTSU Schedule of Classes: Students failing to attend the first two class meetings (lectures) may be dropped from the course.

Academic Integrity/Misconduct

You know that using another's work as your own is wrong. Please review the Computer Science Department's Policy on Academic Integrity and the MTSU Academic Misconduct Policy. The instructor reserves the right to submit materials to online services (such as Turnitin and Moss) that will review the work for plagiarism.

Plagiarism, cheating, fabrication, and other forms of academic dishonesty are prohibited. Such conduct includes, but is not limited to:

- Submitting as one's own work: themes, reports, drawings, laboratory notes, computer programs, or other projects prepared by another person
- Knowingly assisting another student in obtaining or using unauthorized materials
- Submitting assignments previously used in other courses where you received credit for the work
- Improperly crediting or lack of crediting an original author's work

Tests (whether called tests, exams, or quizzes) are to be done solo. The university considers using or attempting to use unauthorized materials, information, aids, or unapproved collaboration with others to be cheating. Students guilty of academic misconduct are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions (including expulsion from the university), that may be imposed through the regular institutional procedures as a result of academic misconduct, the instructor has the authority to assign an "F" or zero for an activity or to assign an "F" for the course.

I am True Blue

As a member of this diverse community, I am a valuable contributor to its progress and success. I am engaged in the life of this community. I am a recipient and a giver. I am a listener and a speaker. I am honest in word and deed. I am committed to reason, not violence. I am a learner now and forever. I am a BLUE RAIDER. True Blue!

Attendance Reporting

MTSU Administration requires that instructors complete an attendance report for each course each semester. Regular class attendance is required and will be monitored by: Zoom participation; the D2L system report; quizzes/exams; and timely submission of course assignments. If several class assignment submissions are missing, student attendance will be reported as "no longer attending."

Email

Per MTSU's FERPA-based email policies, all course-related email will be sent to your MTMAIL account; in turn, you are required to use your MTMAIL account when communicating with the instructor. (Note: The instructor does not send or receive correspondence via D2L; please do not try to contact the instructor through D2L.)

STUDENT RESOURCES

Technical Support

D2L Resources are available to MTSU Online Students. You can also find help for the basic D2L functions used most often directly in your D2L course under the D2L Help for Students module.

Students with Disabilities

If you have a disability that may require assistance or accommodation, or you have questions related to any accommodations for testing, note takers, readers, etc., please speak with the instructor as soon as possible. Any student interested in reasonable accommodations can consult the Disability & Access Center (DAC) website and/or contact the DAC for assistance at 615-898-2783 or dacemail@mtsu.edu. Middle Tennessee State University is committed to campus access in accordance with Title II of the Americans with Disabilities Act and Section 504 of the Vocational Rehabilitation Act of 1973.

Tutoring

MTSU Online supports multiple Online Student Services.

Grade Appeals

University Policy 313, Student Grade Appeals, provides an avenue for MTSU students to appeal a final course grade in cases in which the student alleges that unethical or unprofessional actions by the instructor and/or grading inequities improperly impacted the final grade.

Title IX

Students who believe they have been harassed, discriminated against or been the victim of sexual assault, dating violence, domestic violence or stalking should contact a Title IX/Deputy Coordinator at 615-898- 2185 or 615-898-2750 for assistance or review MTSU's Title IX website for resources.

MTSU faculty are concerned about the well-being and development of our students and are legally obligated to share reports of sexual assault, dating violence, domestic violence and stalking with the University's Title IX coordinator to help ensure student's safety and welfare. Please refer to MTSU's Title IX website for contact information and details.

Hope (Lottery) Scholarship Information

Do you have a lottery scholarship? To retain Tennessee Education Lottery Scholarship (TELS) eligibility, you must earn a cumulative TELS GPA (Grade Point Average) of 2.75 after 24 and 48 attempted hours and a cumulative TELS GPA of 3.0 thereafter. A grade of C, D, F, FA, or I in any course may negatively impact TELS eligibility. Dropping or stopping attendance in a class after the first 14 days of the semester may also impact eligibility; if you withdraw from or stop attending a course and consequently fall to below full-time status (that is, have less than 12 credit hours), you may lose eligibility for your lottery scholarship and you will not be able to regain eligibility at a later time. For additional Lottery rules, please refer to your Lottery Statement of Understanding form or contact your MT One Stop Enrollment Counselor.

Students receiving *any* form of financial aid should always consult with their MT One Stop Enrollment Counselor before dropping a course. MT One Stop is located in Room 210 of the Student Services and Admissions Center (SSAC).