CSCI 233.61E Application Program Development

COURSE SYLLABUS: Fall 2023

INSTRUCTOR INFORMATION

Instructor:	Amy Hays M.S., Computer Science
Office Location:	RELLIS TBA

https://tamuc.zoom.us/j/92711096337?pwd=cS9UZllXb2xIc2V1dGtoNnArcDZ5UT09

Office Hours:	Mondays and Thursdays 10 am to 12 pm
	Other times by appointment only via email
University Email Address:	amy.hays@tamuc.edu
Preferred Form of Communication:	For all emails, make sure the email the subject line reads: "COSC 233.61E~~".
Communication Response Time:	48 hours

COURSE INFORMATION

Lecture: Meets 8/21/2023 through 12/4/2023
Mon, Wed, Fri 9:00a-9:50a
Campus: RELLIS   Building: ACB1 Room: 120

Class Textbook: None Required. Material from the internet will be assigned as needed.

Recommended Textbooks, References and Resources:

For the most part, our course slides and material will be sufficient for understanding course topics. The following textbooks and web resources can be useful as references.
  • Python Crash Course, 2nd Edition: A Hands-On, Project-Based Introduction to Programming by Eric Matthes ISBN-10: 1593279280 ISBN-13: 978-1593279288
  • Intro to Python for Computer Science and Data Science: Learning to Program with AI, Big Data and The Cloud by Paul J. Deitel , and Harvey Deitel ISBN-13: 978-0135404676 ISBN-10: 0135404673
  • Practice of Computing Using Python, The, Student Value Edition,3rd Edition, by William F. Punch, and Richard Enbody ISBN-13: 978-0134380315 ISBN-10: 0134380312
  • Python for Everyone, 2nd Edition by Cay S. Horstmann, Rance D. Necaise ISBN-13: 978-1119056553 ISBN-10: 1119056551

The *syllabus/schedule are subject to change.*

• Python for Software Design: How to Think Like a Computer Scientist 1st Edition by Allen B. Downey (Author). Available at http://www.greenteapress.com/thinkpython/thinkpython.html ISBN-13: 978-0521725965 ISBN-10: 0521725968
• Automate the Boring Stuff with Python: Practical programming for total beginners by Al Sweigart. Available at https://automatetheboringstuff.com/ ISBN-10: 1593275994 ISBN-13: 978-1593275990

Websites:

• Python for beginners: https://www.python.org/about/gettingstarted/
• Learn python: https://www.learnpython.org/
• Google's Python Class: https://developers.google.com/edu/python/
• The Python Tutorial: https://docs.python.org/3/tutorial/
• Tutorialpoint: https://www.tutorialspoint.com/python/index.htm

Software Required

Students may develop your programs on any machine that you like: we encourage you to use your own equipment. We provide instructions for setting up a Python programming environment under Windows, OS X, and Linux. You can use one of the several excellent Python IDEs available, with instructor materials covering PyCharm and Anaconda that are freely available for academic use and work on the major computing platforms (Windows, OS X, and Linux).

Course Description

Application Program Development emphasizes software building with the use of integrated development tools and software subsystems for commercial, file management and database applications. Learning activities include laboratory and online tasks to develop the knowledge and skills necessary to write effective computer programs for information system applications.

Student Learning Outcomes

Upon completing this course, students will be able to:
1. Acquire the skills to edit, test and implement software;
2. Develop programs to retrieve data from files for reports;
3. Learn programming constructs and develop programs that use numbers and other simple data types, strings, lists, functions or methods, and classes;
4. Design and develop user interfaces to collect and present data and information;
5. Develop code to catch exceptions and validate data to store in files and databases;
6. Create and work with a database and develop a GUI program.

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COURSE REQUIREMENTS

Minimal Technical Skills Needed

Prerequisites: COSC 1436.

Instructional Methods

During this course, we will using traditional and active learning methods, and work together using:
• In-class lectures: using slides, supplementary materials, and hands-on exercises. The syllabus/schedule are subject to change.
• Assignments and labs that will be released via the D2L Learning Management Systems (LMS).
• Individual / group projects.

Student Responsibilities

It is expected that you are the owner of your success in this course, including ensuring you understand the expectations, timelines, policies and learning objectives.
Baseline expectations:
> a. Check LMS frequently and remain current with the course content and assignments
> b. Start your homework assignments early so that you can ask for help if needed.
> c. Check the feedback on homework assignments.
> d. Do your own work: you are encouraged to collaborate and consult with classmates to improve your understanding and to develop problem-solving strategies. However, cheating and plagiarism will not be tolerated, i.e. do not copy other people's work.
> e. Communicate with the instructor when you are confused, or having difficulties with the course material / assignment / project.
> f. Get help (sooner than later) if you have challenges or problems:
> • Start or join a study group with classmate(s) from the course to compare notes and discuss class content.
> g. What you get out of any class depends to a very large degree on what you are willing to put into it. Get in the habit of writing little practice programs to try out new language features as we learn them. As you write more programs (even small ones), the process becomes easier, you are much more likely to remember how the language works and to apply it more effectively for data processing.

GRADING

Final grades in this course will be based on the following scale:

A = 90%-100%

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B = 80%-89%

C = 70%-79%

D = 60%-69%

F = 59% or Below

Assessments

Basis for Evaluation:

Assignments	40%
Project Presentations	20%
Quizzes	20%
Exams	20%

Assignments and term project are to be graded considering the following:

1) demonstrating good form; including good organization, remarks, and indentation.

2) Submission on time (late submission are subject to the penalty, ref. late submission section).

3) Meeting assignment / report technical requirements.

- You are responsible for checking your grades after each assignment. You must report any error or inconsistency to the instructor within 5 business days.

TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are the technical requirements.

LMS Requirements:
https://community.brightspace.com/s/article/Brightspace-Platform-Requirements

LMS Browser Support:
https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

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Note: Personal computer and internet connection problems do not excuse late work. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

https://community.brightspace.com/support/s/contactsupport

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

You should do your own work on exams and assignments. Copying another student's work is not acceptable. Any indication of cheating or plagiarism on an exam/assignment will result in an automatic 0 (zero) for the exam/assignment for all students involved. Yet, based on cheating and plagiarism activity in any section of the class, the instructor holds the right to give the grade of F to the identified student(s) for the section. Regarding codes in assignments, you may be required to explain the code you submitted. In case of discursive explanation, the instructor holds the right to lower your grade. No makeup exams or assignments unless documents explaining the emergency are provided.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

Late Policies

Credit will be given for ONLY those exams, quizzes, and assignments turned in no later than the deadline as announced by the instructor of this class unless prior arrangement has been made with the instructor.

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Late assignments can gain partial credit upon the following policy. As per University requirements, assignments submitted within 7 days after the deadline can receive up to 20% deduction, assignments submitted between 8-14 days after the deadline can receive up to 50% deduction.

- **No assignments will be accepted two weeks after the assigned due date.**
- **No assignment will be accepted after the term end day.**
- Exceptions to this policy will only be made in extraordinary circumstances. Please let me know your circumstances.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook. http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: https://www.britannica.com/topic/netiquette

TAMUC Attendance

For more information about the attendance policy please visit the Attendance webpage and Procedure 13.99.99.R0.01. http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

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AI use in Course

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

13.99.99.R0.03 Undergraduate Academic Dishonesty
13.99.99.R0.10 Graduate Student Academic Dishonesty

AI use is NOT allowed in this course.

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Student Disability Services
Texas A&M University-Commerce
Waters Library - Room 162
Phone (903) 886-5150
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: https://www.tamuc.edu/student-disability-services

Nondiscrimination Notice

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Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

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COURSE OUTLINE / CALENDAR

WEEK OF	CONTENT	Major Events
Aug 21	Introduction, overview, and basics of Python	
Aug 28	First program, input, output, variables	Project assignments
Sep 4	Control structures	
Sep 11	Functions and modules	
Sep 18	Program testing	
Sep 25	Lists, tuples, dictionaries, and sets	
Oct 2	Strings	Midterm exam
Oct 9	Files (input, output) and exceptions	
Oct 16	Object-oriented programming (classes and inheritance)	
Oct 23	Processing numbers	
Oct 30	Database	
Nov 6	GUI Programming	
Nov 13	Project presentations	Presentations
Nov 20	**Thanksgiving**	
Nov 27	Project presentations	Presentations
Dec 4	Final exam	Final exam

Submitting Assignments:
- There will be several assignments, labs, and/or quizzes that are tightly related to the class materials and topics. Submissions are expected to be completed in good quality and by the deadlines.
- Your completed work must be placed in the appropriate drop box in D2L Online. **DO NOT EMAIL ME ANY ASSIGNMENTS AS THEY WILL BE DELETED.** If you have challenges in accessing D2L temporarily, you can email me your assignment as proof of on-time submission. **However**, you still need to upload it to the assignment folder as soon the issue is resolved to receive credit.
- You MUST check your files before and after uploading them to D2L to ensure they can be open appropriately. In the case that the instructor is not able to open your submission file(s) your submission will not be graded.☐
- Unless special instructions are provided, assignments are NOT to be posted on ANY discussion board, online websites, or file-sharing platforms. Please follow the rules for naming and posting assignments.
- All assignments must be submitted using D2L if applicable. Students must adhere to the following rules when submitting assignments. Failure to do so will affect their grades.
  - **File Name**: Should be named according to the following pattern: <LastName>_<FirstName>_AXQY.**, where LastName is the student's last name, FirstName is the student's first name, and X is the assignment number, Y is the question number if there are several questions in the assignment.

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- For example, my assignment3, question 2 Python file submission will be named Hays_Amy_A3Q2.py for a programming assignment.
  - **File Header**: for programming the first lines of the submitted file should include a comment with the following information and format:
    ```
    #
    # A short description of the program.
    #
    # @author Last Name, First Name
    # @assignment CSCI 333 Assignment X
    # @date Date
    #
    ```

Note: The right to modify the presentation order of materials is reserved. Course progress will be based on feedback and suggestions from students. We would cover the course materials, so if we slow in some topics, we must accelerate elsewhere.

HAVE A HAPPY AND SUCCESSFUL SESSION

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