COSC 1436.01W and 0LW

Introduction to Computer Science and Programming

COURSE SYLLABUS: Summer I 2022

INSTRUCTOR INFORMATION

Instructor:	Amy Hays M.S., Computer Science
Office Location:	Journalism Rm 212
Office Hours:	Mondays, 1 pm - 3 pm
	Thursdays, 1 pm -3 pm
	Other times by appointment only via email
Office Phone:	(903) 886-5405
University Email Address:	amy.hays@tamuc.edu
Preferred Form of Communication:	For all emails, make sure the email the subject line reads: "COSC 1436.01W~~".
Communication Response Time:	48 hours

TEACHING ASSISTANT

Teaching Assistant:	TBA
TA Email:	TBA

COMPUTER LAB

Locations:	Journalism Rm. 101 & 200
Hours:	9 am to 9 pm, Monday – Friday

COURSE INFORMATION

Lecture: Online web based through D2L

The syllabus/schedule are subject to change.

Class Textbook:
- Computer Science Illuminated by Nell Dale and John Lewis 7th edition ISBN 9781284155617 or E-book ISBN 9781284214161

Textbook Recommended for Python Programming (not required)
- Python Crash Course, 2nd Edition: A Hands-On, Project-Based Introduction to Programming by Eric Matthes
  ISBN-10: 1593279280   ISBN-13: 978-1593279288
- Practice of Computing Using Python, The, Student Value Edition,3rd Edition,
  by William F. Punch, 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
- Think Python: How to Think Like a Computer Scientist by Allen B.
  Downey, Jeffrey Elkner ,Chris Meyers Available at
  http://www.greenteapress.com/thinkpython/thinkpython.html
  ISBN-13: 978-0971677500
  ISBN-10: 0971677506

Software Required

Python compiler (there are free compilers available for download – website addresses will be provided in a separate handout.

Course Description

This is a lecture and laboratory course offered to introduce basic concepts of computer science and programming. Topics include information and data representation, hardware, software development methodology, algorithm design, abstract data types, programming languages, operating systems, applications, communications, algorithms, mechanics of running, testing, and debugging programs. The course also provides an introduction to programming using Python.

Prerequisite: Students planning to enroll for this course should have mastered computer essentials including interaction with a graphical user interface, text editor, and Web browser. If you prefer to use your own computer rather than university laboratory facilities, it is expected that you can download, install, and configure software. No experience in computer programming is expected or required.

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Student Learning Outcomes

This course is similar to an exercise class. You learn new concepts and techniques, and then, exercise these new-found skills. At the end of the class,

1) Show how computer hardware represents information.
2) Describe the computer circuitry that harnesses the electrical flow.
3) Explain how computing components may be combined to build computer systems.
4) Apply general problem-solving strategies to the development of computer algorithms.
5) Write programs in machine, assembly and high-level languages to express and implement algorithms to solve problems.
6) Identify and explain the application of abstract data types such as stacks, queues, lists, trees, and graphs.
7) Apply the object-oriented methodology to computer problem solving.
8) Explain the role of an operating system in managing and interacting with computer system components including main and secondary memory.
9) Utilize information system software to organize, manipulate, and secure data.
10) Describe ways computer networks are used to communicate and share resources and facilitate Web processing.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Using computers, operating systems, program compilers, IDE, and Microsoft Word

Tips for Success in the Course

1) Check D2L as often as possible.
2) Read assignments and be ready for class lectures.
3) Ask if you don't understand something.
4) Get help (sooner rather than later) if you have problems:
   - lab tutors in Jour 200 or 101-102
   - the Academic Success Center also provides tutoring in the library for a wide variety of subjects
   - make friends with at least one person in class so you can compare notes or check for anything you might have missed
   - get a study group together
5) Stay caught up as much as possible.

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6) Get started on programs so that you have time to get help if you find you need some help.
7) Do your own work. Consult with others about problem-solving strategies, but code it yourself.
8) What you get out of any class depends to a very large degree on what you're 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're much more likely to remember how the language works, and you get much better at programming logic (the hardest part of computer programming).
9) Know your own limits and don't over-extend yourself any more than necessary.

Instructional Methods

This course is lecture supplemented by text and D2L. To get started with the course, go to: https://leo.tamuc.edu. You will need your CWID and password to log in to the course.

Student Responsibilities or Tips for Success in the Course

1) Make-up examinations for exams will not be given without valid documents. If you have a compelling and documented reason for not being able to attend the exam, you must make the alternative arrangements before the examination. Grades will not be curved for the course, and you will receive the grade that you earn through your performance on the assignments, exams, project, and bonus questions. There will be no individual exceptions to the grading policy, and, therefore grades of a C or F are possible.
2) No late work will be accepted except under special extenuating circumstances when prior arrangements have been made with the instructor.
3) Grades will be posted within one week after assignment due date.
4) You are responsible to check your grades after each assignment. Please report any error or inconsistency to the instructor within 7 days if possible.
5) 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: LastFirstX.**, where Last is the student's last name, First is the student's first name, and X is the assignment number.
    - For example, student John White would submit WhiteJohn3.py for programming assignment 3.

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- File Header

    - 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 COSC1436Assignment X
     * @date      Date
     */
    ```

6) All students are requested to access their university e-mail account regularly. You may be contacted when important matters arise. If you have any questions about the course or need assistance, please contact the instructor and/or the TA in person during office hours or by e-mail at any time.

GRADING

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

A = 90%-100%
B = 80%-89%
C = 70%-79%
D = 60%-69%
F = 59% or Below

Assessments

Basis for Evaluation:
    Assignments/Labs 60%
    Quizzes   40%

Notes:

A. Assignments/Labs:

Each week there would be an assignment and/or lab that should be solved independently and tightly related to the class materials and topics. Submissions are always expected to be finished in a good shape by deadlines. All assignment must be formally submitted to the assignment folder. Email or any other formats of

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submissions do not count and will not be graded. If you have difficulty accessing D2L temporarily, you can email me your assignment as a 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.

B. Attendance

For the online course, student should make effort to attend listen to the recorded lecture. Students are required to keep up with class materials and announcement made during live lectures or via emails, including changes to due dates or assignments. Attendance will be evaluated based on the submission of assignments and labs.

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.

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.

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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.

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.

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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).
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](http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx) webpage and [Procedure 13.99.99.R0.01](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf).
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)

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

[Graduate Student Academic Dishonesty 13.99.99.R0.10](http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf)

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

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:

Office of Student Disability Resources and Services

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Texas A&M University-Commerce
Library
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu

Website: Student Disability Services - Texas A&M University-Commerce (tamuc.edu)

Nondiscrimination Notice

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.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the Carrying Concealed Handguns On Campus document and/or consult your event organizer.

Web url:
http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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COURSE OUTLINE / CALENDAR

Week of	Topic
6/6	Welcome, computing systems overview, programming languages, first python program, binary numbering systems
6/13	Data representation, variables, running, testing, debugging, Input/Output, operators,
6/20	Control structures, selection (if, if-else, if-elif-else, and nested selections), loops (while and for), character and string operations
6/27	Pseudocode, arrays, lists, functions, scope of variables
7/4	Final week

Note: The right to modify the presentation order of materials is reserved. Course progress will be based on feedback and suggestion 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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