# Syllabus
# COSC 1436.03E – Introduction to Computer Science and Programming
## Texas A&M University Commerce
## Fall 2024

**Instructor**: Dr. Omar El Ariss
**Office Location**: JOUR 238
**Email**: Omar.El.Ariss@tamuc.edu
**Phone**: 903-886-5403
**Office Hours**:

| Day | Time |
|---|---|
| Tuesday | 11:00 am – 12:00 pm & 3:00 pm – 4:00 pm |
| Thursday | 2:00 pm - 4:00 pm |
| Thursday (Zoom) | 4:00 pm - 5:00 pm |

**Zoom Link**
https://tamuc.zoom.us/j/99366433835

**Communication Response Time:**    24 hours
(Please send a second email if you did not receive a response after 2 days)

**Preferred Form of Communication:**    face-to-face
There are many ways to reach me. There is no substitute for face-to-face communication which often leads to more refined and focused questions resulting in your improved understanding. I strongly encourage you to take advantage of my office hours. Questions during class or immediately after class are always welcomed. Email is an easy way to ask questions outside of class but is not productive as face-to-face communication.

## Meeting Time and Place

- Lecture: TR 12:30 pm - 1:45 pm, JOUR 234
- Lab: R 11:00 am - 12:15 pm, JOUR 102

This course has a separately scheduled lab section required to be enrolled: **CSCI 1436.03L** Please make sure to enroll in and successfully complete the required lab session for this course. Every week there will be an assigned lab work.

## Recommended Textbooks

- No textbook is required
- All reading materials will be provided by the instructor.

## Course Objectives

This is a lecture and laboratory course to introduce computer science and programming. Topics include programming languages and algorithmic thinking. Three programming languages: Python, Java, and assembly language, will be taught in the course. Examples and assignments on video game development will be used throughout the course. Students will learn computational thinking and the essentials of programming languages through reflection on their hands-on experiences on video game implementation. This course introduces the fundamental concepts of low-level and high-level programming. Topics include software development methodology, data types, control structures, functions, arrays, files, and the mechanics of running, testing, and debugging.

## Student Learning Outcomes

Upon completion of the course, students should possess the following skills:

1. Learn basics of low-level machine instructions and understand the low-level fetch-decode-execute cycle
2. Differentiate between high-level and low-level programming
3. Understand the basic syntax of Python.
4. Understand the basic syntax of Java.
5. Comprehend various data types and how to use them
6. Comprehend standard input and standard output
7. Comprehend how primary storage and secondary storage work
8. Comprehend arithmetic operations and operator precedence
9. Comprehend control structures: selection and repetition, and how they translate to low-level representation
10. Comprehend basic data structures: arrays and lists
11. Learn how to divide a program into many modules and comprehend how to use functions or subroutines
12. Develop, run, and test basic programs including game-driven examples
13. Apply general problem-solving strategies to the development of computer algorithms.

## Homework Assignments

There will be several homework assignments. The purpose of the homework is to reinforce programming material that is covered in class. Programming assignments should be done individually. Make sure to start early on the programming assignments so that you have time to get help if there is a need to. Department lab tutors are available in JOUR 200 or JOUR 101-102. In addition, the Academic Success Center also provides tutoring in the library for a wide variety of subjects.
Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, chatbots, or other software that has the capacity to generate code, and textual answers. Any use of such software is not allowed, and constitutes an instance of academic dishonesty (plagiarism).

## Grading

- Assignments: 35% of grade
- Lab Attendance: 10% of grade
- Exam 1: 15% of grade
- Exam 2: 15% of grade
- Final Exam: 25% of grade

Letter grades will be determined using a standard percentage of points scale:

| Letter Grade | Cut-off Score |
|:---:|:---:|
| A | 90% |
| B | 80% |
| C | 70% |
| D | 60% |
| F | Below 60% |

Lab attendance is based on whether the student have participated in the lab exercise. (You will receive the credit as long as you work on the exercise question, even if your answer is incorrect.) The time and location of each exam will be announced at least one week before the exam. Class attendance, doing all your homework will help the borderline cases. Check your grades often. Any score may be disputed up to seven (7) days after the score is posted. After 7 days the score remains as-is.

## 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 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

YouSeeU Virtual Classroom Requirements:
https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements

## 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 the requirement to complete all course work in a timely and satisfactory manner. 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

## Minimal Technical Skills Needed

Students enrolling in this course should have knowledge of computer essentials including how to interact with a graphical user interface, text editor, web browser and the use of D2L. If the use of a personal computer is preferred over university laboratory computers, it is expected that the student can download, install and configure software. No experience in computer programming is expected or required.

## Methods of Instruction

We will meet 3 times every week, including 2 lectures and 1 lab session. Attendance is required for every meeting. The course will consist mainly of lectures, labs, and discussions. Important material from the text and outside sources will be covered in class. Therefore, class attendance and good note taking are essential for success. Students are expected to contribute to each class in the form of discussion and questions. Therefore, it is necessary to do any required reading before class.

This syllabus contains an overview of what will be covered in class; for specific information, students are referred to the class web page maintained on D2L course management system. The course web page will contain lectures, assignment information and supporting material. Information on D2L will be updated frequently so it is a good idea to check it regularly. Assignments are posted on D2L and should be submitted through D2L.

## Attendance

You are expected to attend every class. If you must miss a class, it is your responsibility to make up for the work that you missed. If you are going to be absent from class, please notify the instructor in advance.

## Tips for Success in the Course

1. Attend every lecture as long as you are able to.
2. Attend, and work on the labs.
3. Check D2L at least twice a week.
4. Read the lecture notes before and after every lecture, and use the slides as your guideline.
5. Start your homework assignments early.
6. Practices programming exercises regularly.
7. If you have any questions, or are having difficulties with the course material then please contact your instructor as soon as possible.

## Late Submissions Policy

All work submitted electronically must be submitted by midnight of the due date. Late work will be deducted 10% for each day past the due date. Assignment will not be accepted after three days from the due date.

## Make-up Policy

No individual make-up test will be permitted except in the case of a formal institutional excuse. There will be no makeup for project deliverables.

## 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.

## 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

## Academic Honesty

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (See Student's Guide Handbook, Policies and Procedures, Conduct). It is the policy of the University, that no form of plagiarism or cheating will be tolerated. Plagiarism is defined as the deliberate use of another's work and claiming it as one's own. This means ideas as well as text or code, whether paraphrased or presented verbatim (word-for-word). Cheating is defined as obtaining unauthorized assistance on any assignment. Proper citation of sources must always be utilized thoroughly and accurately. If you are caught sharing or using other people's work in this class, you will receive a 0 grade and a warning on the first instance. A subsequent instance will result in receiving an F grade for the course, and possible disciplinary proceedings. If you are unclear about what constitutes academic dishonesty, ask.

For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

## Special Needs

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**
Texas A&M University-Commerce
Gee Library- Room 162
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
Email: studentdisabilityservices@tamuc.edu
Website: Office of Student Disability Resources and Services
http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

## A&M-Commerce Supports Students' Mental Health

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit www.tamuc.edu/counsel

## 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/34SafetyOfEmployees AndStudents/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.

## Tentative Course Outline

| Week | Content |
|------|---------|
| 1 | Introduction to computer systems and programming concepts |
| 2 | Variable declaration |
| 3 | Variable declaration (continued) |
| 4 | Binary number system and data representation |
| 5 | Boolean Operators and expressions |
| 6 | **Exam 1** <br> If statement |
| 7 | If statement (continued) |
| 8 | Input/output |
| 9 | Functions |
| 10 | Functions (continued) |
| 11 | Repetitions |
| 12 | **Exam 2** <br> Repetitions (continued) |
| 13 | Repetitions (continued) |
| 14 | Arrays – Thanksgiving Break |
| 15 | Arrays (continued) |
| 16 | **Final Exam** (comprehensive) |

The course outline will adapt to the actual progress of the classes and may not be accurately the same as the table above.