

# COSC 1436.04W Intro to Computer Science & Programming

COURSE SYLLABUS: Fall 2022

# **INSTRUCTOR INFORMATION**

Instructor: Dongeun Lee, Ph.D., Associate Professor, Department of Computer Science Office Location: JOUR 213 Office Hours: Mon 3:30PM~4:30PM, Fri 10:00AM~2:00PM / Zoom meetings will be also held occasionally University Email Address: Dongeun.Lee@tamuc.edu Preferred Form of Communication: Discussion Board and Email Communication Response Time: 48 hours

### **COURSE INFORMATION**

Lecture: Web Based Class (myLeoOnline) Lab (COSC 1436.4LW): Web Based Lab (myLeoOnline D2L), JOUR 200 and JOUR 102 are open for students' use

Text book: None required. Use any text book of your choice for reference or look up information on about Python language on internet.

#### Software: Python interpreter of your choice.

#### **Course Description**

This is a lecture and laboratory course to introduce computer science and programming. Topics include information and data representation, hardware, programming methodology, algorithm design, abstract data types, programming languages, operating systems, applications, and communications.

#### **Student Learning Outcomes**

- 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 computer programs to express and implement algorithms to solve problems
- 6. Explain the application of abstract data types such as stacks, queues, and trees
- 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

Students enrolling in this course should have mastered computer essentials including how to interact with a graphical user interface, text editor, and web browser. 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.

#### **Instructional Methods**

Lectures will be given every week on myLeoOnline in the form of presentation slides with voice-over and scripts. Students are supposed to download the files and study each week. Each week will have a discussion board for Q&A.

### **Student Responsibilities or Tips for Success in the Course**

Assignments and exams will be announced on myLeoOnline. It is students' responsibility to keep up with the schedule. No makeup exams or assignments.

# 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 50% Midterm Exam 25% Final Exam 25%

### **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: <a href="https://community.brightspace.com/s/article/Brightspace-Platform-Requirements">https://community.brightspace.com/s/article/Brightspace-Platform-Requirements</a>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\_suppo rt.htm

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

### 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 <u>helpdesk@tamuc.edu</u>.

**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

#### Interaction with Instructor Statement

The instructor will make an effort to answer questions in a timely manner.

# COURSE AND UNIVERSITY PROCEDURES/POLICIEsS

#### **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 class, instructor holds the right to give F grade to the identified student(s). 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 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.

# **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 <u>Student Guidebook</u>. <u>http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as</u> <u>px</u>

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 <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>. http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

<u>nttp://www.tamuc.edu/admissions/registrar/generalinformation/attendance.aspx</u>

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 Undergraduate Student Academic Dishonesty Form

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/documents/13.99.99.R0.03UndergraduateStudentAcademicDishonestyForm.pdf

Graduate Student Academic Dishonesty Form

http://www.tamuc.edu/academics/graduateschool/faculty/GraduateStudentAcademicDis honestyFormold.pdf

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

Texas A&M University-Commerce Velma K. Waters Library Rm 162 Phone (903) 886-5150 or (903) 886-5835 Fax (903) 468-8148 Email: <u>studentdisabilityservices@tamuc.edu</u> Website: <u>Office of Student Disability Resources and Services</u>

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/

#### **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 <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

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

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.

### 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

# **COURSE OUTLINE / CALENDAR**

- Week 1: Introduction to computer systems and programming concepts / Binary values and number systems
- Week 2: Binary values and number systems (continued) / Data representation
- Week 3: Operating systems / File systems / Networking
- Week 4: Introduction to programming / Data types and identifiers
- Week 5: Input and output for user interaction / Operators and expressions
- Week 6: Algorithms and Pseudocode / Functions, built-in functions
- Week 7: Functions, built-in functions (continued)
- Week 8: User-defined functions
- Week 9: User-defined functions (continued)
- Week 10: Control structures—selection / Boolean logic
- Week 11: Control structures—repetition / Nested control structures
- Week 12: Review of function and control structures / Scope of variables
- Week 13: List and string / Processing lists and strings with repetition

Week 14: Files

- Week 15: Files (continued)
- Week 16: Final review