COSC 1436.01W – Intro to Computer Science & Programming

COURSE SYLLABUS: Spring 2021

INSTRUCTOR INFORMATION

Instructor: Kaoning Hu, Assistant Professor
Office Location: JOUR 220
Office Hours: TBA in Week 1
Office Phone: 903-886-5406
Office Fax: 903-886-5404
University Email Address: kaoning.hu@tamuc.edu
Preferred Form of Communication: *Email*
Communication Response Time: *Usually 1 business day, may take up to 2*
(Please send a second email if no response after 2 business days)

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbooks Required: None.
All reading materials are provided by the instructor.

Course Description

This is a lecture and laboratory course to introduce computer science and programming. Topics include programming languages and algorithm design. Three programming languages: Python, Java, and assembly language, will be taught in the course. Examples and assignments on video game development will be used in the labs.

Student Learning Outcomes

1. Learn basics of low-level machine instructions and understand the low-level fetch-decode-execute cycle

The syllabus/schedule are subject to change.

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.

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

We will meet 3 times every week, including 2 lectures and 1 lab session. Attendance is required for every meeting. If a student misses more than 1/3 of a meeting, the student will be considered absent in that meeting.

All course materials will be found in D2L. All assignments should be submitted on D2L. Please go to myLeo, and find D2L in Apps.

Student Responsibilities or Tips for Success in the Course

1. Attend every lecture as long as you are able to.
2. Check D2L at least twice a week.
3. Read the textbook before and after every lecture, and use the slides as your guideline.
4. Start your homework assignments early.
5. Do your own work. If you have difficulties in an assignment, ask the instructor. Do not copy other people's work.
6. Contact the instructor when you are confused.
7. Seek help from lab tutors in Jour 101 or 200 when you need.

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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

The weight total grade is computed as
- Midterm exam: 25%
- Final exam: 25%
- Average of quizzes: 20%
- Average of assignments: 20%
- Exercise participation: 10%

There will be
- approximately 4 to 6 homework assignments
- 7 to 10 exercise sheets
- 3 to 5 quizzes and
- 2 exams.

Assignments will be graded on the following:
- meet specification of assignment
- have good organization and logic
- demonstrate good form, including remarks and indentation
- on-time (Late submission subject to the penalty.)

Quizzes and exams are graded based on the correctness of the answers.

Exercise sheets are graded based on whether the student have participated in the exercise. (i.e. You receive the credit as long as you work on the exercise question, even if your answer is incorrect.)

All exams are comprehensive. The time and location of each exam will be announced one week before the exam.

Quizzes are not comprehensive unless otherwise specified. The time of each quiz will be announced before the quiz.

Make-up quizzes/exams are given only if there is an emergency. If you take a make-up quiz/exam, you may receive a different set of questions with approximately the same difficulty level as the regular quiz/exam. Alternatively, you may also choose to receive a grade based on your in-class ranking in the next quiz/exam.

All assignments must be completed on time. Late submission is subject to penalty: 10% if late but no later than 24 hours; 20% if later than 24 hours but no later than 7 calendar days; No grade if later than 7 calendar days. However, the students and the instructor can negotiate on the due time and late penalty of the assignments.

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Bonus credit – in some assignments, the students may be awarded bonus credits. Bonus credits will not be counted towards the weight total grade. However, bonus credits will be considered when the student's weight total grade is very close to the borderline between two letter grades.

TECHNOLOGY REQUIREMENTS

Browser support

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

Desktop Support

Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A

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Browser	Supported Browser Version(s)	Maintenance Browser Version(s)
Apple® Safari®	Latest	N/A

Tablet and Mobile Support

Device	Operating System	Browser	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or **point** release of that major version) and the previous major version of iOS (the latest minor or **point** release of that major version). For example, as of June 7, 2017, D2Lsupports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version. Chrome: Latest version for the iOS browser.
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR.

- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - o 512 MB of RAM, 1 GB or more preferred
  - o Broadband connection required courses are heavily video intensive
  - o Video display capable of high-color 16-bit display 1024 x 768 or higher resolution

- You must have a:
  - o Sound card, which is usually integrated into your desktop or laptop computer
  - o Speakers or headphones.
  - o *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning

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management system. The most current version of Java can be downloaded at: JAVA web site http://www.java.com/en/download/manual.jsp

- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.
> Pop-ups are allowed.
> JavaScript is enabled.
> Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - Adobe Reader https://get.adobe.com/reader/
  - Adobe Flash Player *(version 17 or later)* https://get.adobe.com/flashplayer/
  - Adobe Shockwave Player https://get.adobe.com/shockwave/
  - Apple Quick Time http://www.apple.com/quicktime/download/

- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

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.

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COMMUNICATION AND SUPPORT

Brightspace Support

Need Help?
Student 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

System Maintenance

D2L runs monthly updates during the last week of the month, usually on Wednesday. The system should remain up during this time unless otherwise specified in an announcement. You may experience minimal impacts to performance and/or look and feel of the environment.

Interaction with Instructor Statement

To communicate with me about this course you are to use the email address on this syllabus. Please include the course number in the beginning of the subject field for every email message. During the week, you can generally expect a response to your emails within 1 business day. If you do not receive my response in 2 business days, please send a second email to me.

You can also call me at my office or stop by my office during office hours. You can also schedule an appointment by email.

My office location, phone number, and office hours are subject to change and amendment.

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

If you miss an assignment or exam in case of an emergency situation (medical, family, etc.), you will be given extra time.

If you miss the final project or the final exam in case of an emergency, you will receive an "X" (incomplete) grade. You will be given extra time to finish the project. After you finish the project, your grade will be updated. For more information about "X" grade, please refer to this webpage:
http://www.tamuc.edu/admissions/registrar/generalInformation/grade.aspx

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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 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: Netiquette
http://www.albion.com/netiquette/corerules.html

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

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

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ADA Statement

Students with Disabilities

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/

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

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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.

COURSE OUTLINE / CALENDAR
(01/11/2021 through 05/01/2021)

Week 1	Introduction to computer systems and programming concepts
Week 2	Variable declaration
Week 3	Variable declaration (continued)
Week 4	Binary number system and data representation
Week 5	Operators and expressions
Week 6	If statement
Week 7	If statement (continued)
Week 8	Midterm exam Input/output
Week 9	Functions
Week 10	Functions (continued)
Week 11	Functions (continued)
Week 12	Repetitions
Week 13	Repetitions (continued)
Week 14	Arrays/Lists
Week 15	Arrays/Lists (continued)
Week 16	Final Exam

Course calendar will adapt to the actual progress of the classes and may not be accurately the same as the table above.

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