

**COSC 1436.02: INTRODUCTION TO COMPUTER SCIENCE AND PROGRAMMING
COURSE SYLLABUS : SPRING 2019**

INSTRUCTOR INFORMATION

Instructor: Thomas L. Brown, Adjunct Professor
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Preferred Form of Communication: email; and <http://csci.website>
Communication Response Time: next classday (or before)

COURSE INFORMATION

Textbook Optional:

**Dale, Nell and John Lewis. Computer Science Illuminated, 5ed. (or higher),
Sudbury, MA: Jones and Bartlett Publishers, 2011, ISBN 978-1-4496-7284-x.**

Other Recommended Texts and/or Materials:

**Dev C++ development environment available in the CSci labs and as a freeware
download from <http://sourceforge.net/projects/orwelldvcpp/>
A usb/flash drive to store files and documents**

Course Description

Topics include information and data representation, hardware, programming methodology, algorithm design, abstract data types, programming languages, operating systems, applications, and communications. There is no course prerequisite.

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.**

*** as measured by chapter quizzes, lab assignments, and final exam scores**

TECHNOLOGY REQUIREMENTS

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.

You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:

512MB of RAM, 1 GB or more preferred

Broadband connection required courses are heavily video intensive

Video display capable of high-color 16-bit display 1024 x 768 or higher resolution

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 management system. The most current version of Java can be downloaded at:

<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.

For enhanced web browsing you will need some additional free software (plug-ins). 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 (for some other courses), 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.

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.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Students enrolling in this course should have mastered computer essentials including the use of a text editor, a graphical user interface, and a common web browser(e.g. FireFox). If a personal computer is preferred rather than a laboratory computer, it is expected that the student can download, install and configure software.

Instructional Methods

This course includes both lecture and laboratory activities to introduce computer science concepts and computer programming in an algorithmic language.

Student Responsibilities or Tips for Success

It is expected that the student will attend all lecture and lab meetings, regularly log into the course website (<http://csci.website>), read chapter assignments, complete programming exercises, and submit lab assignments on or before the announced due dates.

GRADING

Final grades in this course will be based upon points earned on quizzes, labs, and the final exam. There will be 200 possible points to earn on quizzes, 100 on labs, plus 100 points on the final exam.

Assessments

A point total in the range 360 to 400 will earn the grade of "A", 320 to 359 a "B", 280-319 a "C" and so on. College policy should be followed to obtain a grade of "X".

COURSE AND UNIVERSITY PROCEDURES /POLICIES

Course Specific Procedures/Policies

- 1. Assigned Readings:** The student is expected to read assignments to prepare for scheduled discussions of the material. The student is also expected to access online course materials to obtain assignments and related materials.
- 2. Attendance:** The student is expected to attend all classes. Regular and punctual attendance should ensure that expectations are understood, and give feedback to monitor and assess progress. Up to 30 bonus points may be earned for attendance.
- 3. Quizzes, labs, and final exam:** The student is expected to complete each graded activity at the scheduled time. Should one of these activities be missed, the grade for the next activity of the same type will be used for both.

4. Intellectual Honesty: The discovery of plagiarism (example: copying from another's lab solution) will result in a grade of zero on a particular lab or other individually graded activity. A subsequent breach of this policy mandates a grade of "F" for the course.

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. ([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 in an online forum: (see <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>

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

Gee Library, Room 162, phone 903.886.5150 or 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 (<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>) and/or consult your event organizer). 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

CSci 151.02E
151.02L

Semester Schedule

JO 200 TR 9:30am
JO 200 T 2:00pm

Week	Study Topic/Activity	Chapter
1	Orientation and introduction to computer systems and programming concepts(January 15, 17)	*
2	Input and Output for user interaction	*
3	Computing Systems, Computing as a tool and as a discipline Data types and identifiers; quiz 1 (Thur)	1 *
4	Binary values and number systems Operators and expressions	2 *
5	Data representation Operators and expressions...	3 *
6	Control structures--selection (if..else...)	*
7	Gates and circuits; Control structures--repetition (do, while); quiz 2	4 *
8	Computing components;	5
9	Algorithms and Pseudocode Functions (subprograms)	6 *
10	Spring Break (March 18 – 22)	
11	Problem solving and algorithms; Functions	7
12	Abstract data types and subprograms String operations; Quiz 3	8 *
13	Object-oriented design and High-Level languages Arrays: numeric and string	9 *
14	Operating systems	10 *
15	File Systems and directories Sorting and searching arrays	11 *
16	Information systems; Classes and Objects; Quiz 4	12
17	Final Exam: 151.002 Thur 9 May 8:00am over study questions and practice/lab exercises	

*Note: supplemental study material (exercises and C++ web tutorial)