# CSCI 428.01W 23820

## Object Oriented Program with Java

COURSE SYLLABUS: Spring 2021

## INSTRUCTOR INFORMATION

**Instructor:** Stephan Kelley
**Office Location:** TBA
**Office Hours:** Appointment via email
**Office Phone:** TBA
**Office Fax:** TBA University
**Email Address:** Stephan.Kelley@tamuc.edu
**Preferred Form of Communication:** Email
**Communication Response Time:** Within 24 hours on weekdays. If emails are sent on Friday, the replies will be available by the following Monday.

## COURSE INFORMATION

**Materials** – Textbooks, Readings, Supplementary Readings

**Lecture:** Web Based Class

**Credit hours**: 3

**Weekly Meeting Time:** TBA

**Textbook(s)**

***Required***

Deitel, Paul, and Harvey Deitel. *Java: How to program (Early Objects)*, 11th ed. Prentice Hall, 2011. ISBN-10: 9780134743356, ISBN-13: 978-0134743356.

*The syllabus/schedule are subject to change.*

***Optional***

• Sierra, Kathy, and Bert Bates. Head First Java: A Brain-Friendly Guide. " O'Reilly Media, Inc.", 2005. ISBN 978-0-596-00920-5

• Bloch, Joshua. Effective java. Pearson Education India, 2016. ISBN 9780134685991

• NOTE: This is not a course on Javascript, which is a separate (scripting) language.

**References**

In most cases, the instructor's slides are sufficient for understanding all topics covered by this course.

**Software Required**

Any Java IDE. Everyone has different preferences and Java's popularity is due to its usability on any platform. NetBeans, Eclipse, IntelliJ IDEA Community Edition, Android Studio, Enide Studio 2014, BlueJ, jEdit, jGRASP, JSource, JDeveloper, DrJava, Jcreator etc. NetBeans and Eclipse are the most common.

Where browsers – and Java applets – are concerned, Google Chrome and Internet Explorer are best used here.

More information is provided later in the Technology Requirements section.

***Note: All background material will be developed and offered in efficient and effective ways within the course itself and from scratch.**

This course does not assume the student is an experienced programmer or has an extensive mathematical background, but provides a solid background in object-oriented programming techniques and introduces terminology using clear, familiar language.

Additional course information is available at D2L. Log in using your Access ID for class notes, lecture slides, class announcements, course syllabus (which you're reading now), and other information. Assignment and project submissions will be on D2L as well as course grades.

## COURSE REQUIREMENTS

**Minimal Technical Skills Needed**

Using computers, operating systems, program compilers/interpreters, IDE of your choice, and Microsoft Word.

**Course Description**

This course introduces the basic concepts and terminology of object technology. It emphasizes current techniques in object oriented design, analysis, and programming. In particular, we will study the concepts of Exception Handling, Encapsulation and Data Hiding, Inheritance, Polymorphism, and the Array and ArrayList datatypes.

Prerequisites: CSCI 270 or permission of instructor.

**Student Learning Outcomes**

a) Ability to analyze a problem, and to identify and define the computing requirements appropriate to its solution.
b) Ability to design, implement, and evaluate a computer-based solution to meet a given set of computing requirements in the context of the discipline.

**Instructional Methods**

While this is a virtual course section, video will be used regularly to communicate concepts and for discussion.

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

From the Students' Handbook: "Students are expected to be present for all class meetings of any course for which they are enrolled. Per University Procedure A13.02, effective September 1, 1996, students are responsible for learning about and complying with the attendance policy stated in the catalog, Student's Guidebook, and/or faculty syllabus. It is the prerogative of the faculty to drop students from courses in which they have accrued excessive absences as defined in the course syllabus."

Since this is a virtual course section, in which media content is asynchronous, attendance will not be taken to watching videos themselves as part of the grade. That said (or written, in this case), the student will benefit by accessing all media and reference materials – that's why they are there. There's another reason: completed and correct work is being emphasized here; as professionals, you will be judged not on how much time you spend in your seat (though that gets noticed), but by how much you get done.

Late work can be handed in, but it comes at the steep discount of 15% per day, and only for two (2) days maximum; see the university's late policy below. Generally, you don't want to do that. If you turn one in late, but otherwise do well in the course, you won't be affected much, but if it's a habit, that's another story. This is rather like the professional world – management understands things occasionally go awry, but if you're constantly late, they notice.

While everyone must complete their own assignments, please talk to each other – given the level of this course, the following may already be apparent, but you can learn much from your peers. When you're doing this on your own, you will rely on others like you – and at your level – for tips, suggestions, and feedback, and discover a richness which comes from multiple perspectives on the same task or problem solution; you don't want to ask management what to do every time you're stumped. If several students find the same issue or concept difficult, it's time to escalate: do reach out to me and a dedicated video chat will be scheduled to address.

Finally, understand the type of learner you are. Some learn best by listening, some by reading, and a few by writing. This class accommodates all three, though the first less so.

- Auditory learners – watch (and listen to) the videos as well as other similar materials found on the web. Simply be careful the quality of advice you get – if it's on the internet, it must be true, right?!? Right?!?
- Reading learners – the text and references are for you. Same advice regarding online content as above.
- Writing learners – grasp the concepts via experimentation; all the tools are at your fingertips. Just beware your curiosity doesn't take on a life of its own.

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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

Grades will be posted no later than one (1) week after assigned due date. Check your grades and report any discrepancy(ies) within one (1) week after the grade is posted.

Grades will not be curved in this course. However, the student does have the opportunity to "make up ground" by exhibiting improved understanding of concepts on which (s)he struggled previously. In this course, that means on the mid-term or final exams and the final project. This fits the spirit of learning: you will not compete against your classmates or succeed with substandard work simply because everyone around you seems to, but are rewarded for concept mastery, even if it requires more effort in some cases.

### Assessments

Assignments 25%

Quizzes 20%

Mid Term 15%

Presentation/Final 20%

Project 20%

### Project

Students will be responsible to create an original software project that integrates object-oriented design principles. More information will be provided regarding the project later in the semester.

Program Evaluation: Programs will be graded on a scale of 0 through 100.

| | |
|---|---|
| 0 | Nothing was turned in. |
| 10-50 | For programs that don't compile or run and have major problems and/or very little completion of program requirements. The score will be determined by how many problems there are. |
| 60 | A good attempt has been made but program has several problems causing compile and/or run time errors. |

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70 The program is correct but has a very small amount of easily fixed errors. (This is the highest you can get if your program will not compile.)

80 The program compiles and runs but doesn't meet several requirements.

90 The program compiles and runs but doesn't meet a very minor number of requirements.

100 The program compiles and runs and meets all program requirements

# 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 |
| Apple Safari | Latest | N/A |

**Tablet and Mobile Support**

| Device | Operating System | 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, D2L supports 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 as follows:
  - 512 MB 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
- You must have the following:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - *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 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.

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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.

### 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_suppo rt.htm

**YouSeeU Virtual Classroom Requirements:**

https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-SystemRequirements

## 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.

The professional world doesn't want excuses, they want results.

## 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:

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https://community.brightspace.com/support/s/contactsupport

**Interaction with Instructor Statement**

Guidelines for email messages to Prof. Stephan Kelley

Replies to messages that do not conform to the following requirements might be delayed or missing (e.g., due to automatic classification of the message as junk mail):

The message should be sent from a Texas A&M University account - ending with "tamuc.edu".

The message should have a descriptive subject with the indicated prefix:

CSCI # -Semester YEAR--<CWID>: <descriptive subject>

I will reply you within 48 hours.

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

**Course Specific Procedures/Policies**

**Late Policy**

The deadline for any assignment can be extended with a 15% penalty per day. No deadline can be extended by more than two days. Assignments will NOT be accepted 48 hours after the due date. No technical excuse (e.g., eCollege technical problem).

**Makeup Policy**

There will be no makeup exams in general. Makeup exams may be given to students under extreme circumstances, such as hospitalization, serious injury, death in the family etc., with prior notification and official documents.

Students are expected to do the readings, attend class, and participate in class discussions.

If this course is Face to Face (Lecture), then I Do Not share my PowerPoint slides and class notes, except under extenuating circumstances. You are responsible for the content of all classes, including issues raised in the spontaneous class discussions. If you must miss a class, please request notes from your classmates prior to contacting me. Attendance may be checked at random throughout the semester.

**Collaboration Policy**

Students are encouraged to talk to each other, to the instructor, or to anyone else about any of the assignments. Any assistance, though, must be limited to discussion of the problem and sketching general approaches to a solution. Each student must write out his or her own solutions to the homework. Consulting another student's or group's solution is prohibited, and submitted solutions may

not be copied from any source. These and any other form of collaboration on assignments constitute cheating. If you have any question about whether some activity would constitute cheating, please feel free to ask.

### Academic Integrity

Your commitment as a student to learning is evidenced by your enrollment at Texas A &M University-Commerce. "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 Procedure, Conduct). All phones, pagers, and other communication devices are to be turned off or place on silent mode during class. Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified.

Anyone cheating will receive a zero on the work they are doing, and subsequent cheating will result in a failing grade.

### Basic Tenets of Common Decency

"All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment." (Student's Guide Handbook, Policies and Procedures, Conduct.) This means that rude and/or disruptive behavior will not be tolerated.

### Smoke, Vapor & Tobacco Free Environment

University Procedure 34.05.99.R1 now prohibits the use of vapor/electronic cigarettes, smokeless tobacco, snuff and chewing tobacco inside and adjacent to any building owned, leased, or operated by A&M – Commerce.

## Disclaimer

This syllabus is meant to provide general guidance of what to expect from this course. The instructor reserves the right to make changes as appropriate based on the progress of the class. All changes made to this syllabus during the semester will be announced. This document has been posted electronically. If you print a copy of it, please be sure to consult the last modified date of the online version to verify that your printed copy is current.

### 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.

*The syllabus/schedule are subject to change.*

## 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:

https://www.britannica.com/topic/netiquette

### 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 StudentAcademicDishonesty13.99.99.R0.10

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:

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**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

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&MCommerce campuses. Report violations to the University Police Department at 903886-5868 or 9-1-1.

## COURSE OUTLINE / CALENDAR

| Week | Topic |
|---|---|
| 1 – 3 | Introduction to Java Applications |
| 4 – 6 | Introduction to Classes, Objects, Methods and Strings |
| 7 | Methods: A Deeper Look |
| 8 | **Midterm Exam** |
| 9 – 11 | Classes and Objects: A Deeper Look |
| 12 – 13 | Object-Oriented Programming: Inheritance |
| 14 – 15 | Object-Oriented Programming: Polymorphism |
| 16 | **Final Exam** |

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