

# ENTD381

**STUDENT WARNING:** This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

## Course Summary

### Description

**Course Description:** This course is a study and application of the principles and concepts of Object-Oriented Programming (OOP) as it is implemented in the world of Java; including inheritance, encapsulation, and polymorphism. It appraises the processes and practices used to develop IT solutions that are reusable, modular, and small; all of which are popular objectives in the world of IT management. This course explores the inheritance (is a), containment (has a), and collaboration (use a) relationships; and examines the major packages in the Java Class Library, strings, arrays, classes; instantiation, properties, methods, constructor methods, method overloading, method overriding, inheritance modifiers, access modifiers, interfaces, and packages. This course also assesses exception handling with the use of “try,” “catch,” and “finally.” Students must have access to the latest edition of the Java Development Kit. This software is not provided by the course material grant and must be purchased/provided by the student. (Prerequisite: ENGR200, ENTD200, ENTD211, or ENTD261)

### Course Scope:

This course introduces the principles of Object oriented programming. Students will learn about the features of Java that make it portable and platform independent. Students will also learn about the rudiments of the language, such as: declaring and using variables, data types, conditional branching, and iterating. Students will apply their knowledge of object orientation to work with classes, objects, methods properties, and interfaces and to define class hierarchies to improved code reusability. Students are introduced to various Java packages which provide us with a rich set of classes, methods, and properties. Students are also taught to handle exceptions and also to create their own exception classes. This course also introduces the java.io package and the tools to perform input and output operations.

### Objectives

After successfully completing this course, you will be able to

1. Explain the evolution of the World Wide Web (WWW) in terms of the need for programming language.
2. Distinguish between scripting languages and programming languages and between JavaScript and Java.
3. Create an Object Oriented Program.
4. Apply the features of Java that have made it the Information Technology Management language of choice for enterprise solutions.
5. Develop applications on the Web using Java language.

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# Outline

## Week 1:

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### Topic

The History and Evolution of Java

An Overview Of Java

Learning Objectives

Explain the evolution of the World Wide Web (WWW) in terms of the need for programming language.

Distinguish between scripting languages and programming languages and between JavaScript and Java.

Create an Object Oriented Program.

Readings

Chapters 1,2

Assignment

Forum Introduction

Assignment: WK1 Installation of the Software

## Week 2:

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### Topic

Data types, Variables, Arrays, and Operators

Learning Objectives

Distinguish between scripting languages and programming languages and between JavaScript and Java.

Create an Object Oriented Program.

Readings

Chapters 3,4

Assignment

Assignment: WK2 Data Types and Comparisons

Week 2 Forum

## Week 3:

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### Topic

Control Statements

Introducing Classes

Learning Objectives

Distinguish between scripting languages and programming languages and between JavaScript and Java.

Create an Object Oriented Program.

Readings

Chapters 5, 6

Assignment

Assignment: WK3 Classes

Week 3 Forum

## **Week 4:**

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Topic

A Closer Look at Methods and Classes

Inheritance

Learning Objectives

Apply the features of Java that have made it the Information Technology Management language of choice for enterprise solutions.

Create an Object Oriented Program.

Readings

Chapters 7,8

Assignment

Assignment: WK4 Inheritance

Week 4 Forum

## **Week 5:**

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Topic

Packages and Interfaces

Learning Objectives

Apply the features of Java that have made it the Information Technology Management language of choice for enterprise solutions.

Create an Object Oriented Program.

Readings

Chapter 9

## Assignment

Assignment: WK5 Abstract and Interface

Week 5 Forum

## **Week 6:**

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Topic

Exception Handling

String Handling

Learning Objectives

Apply the features of Java that have made it the Information Technology Management language of choice for enterprise solutions.

Develop applications on the Web using Java language.

Readings

Chapter 10,16

Assignment

Assignment: WK6 Exceptions

Week 6 Forum

## **Week 7:**

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Topic

Input/Output : Exploring Java.IO

The Applet Class

Learning Objectives

Apply the features of Java that have made it the Information Technology Management language of choice for enterprise solutions.

Develop applications on the Web using Java language.

Readings

Chapters 18, 19, 20

Assignment

File Reading Assignment

Week 7 Forum on the Latest Java Update

## **Week 8:**

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Topic

Exploring Java.lang

Java.util part 1

Learning Objectives

Apply the features of Java that have made it the Information Technology Management language of choice for enterprise solutions.

Develop applications on the Web using Java language.

Readings

Chapters 17,18, 19

Assignment

Assignment: WK8 Final Project

Week 8 Forum

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## Evaluation

### Forum Activities:

Every week you will participate in a discussion forum activity. Each discussion forum activity will consist of one or more threads/topics. The forums may involve discussion or debate. The questions are designed to allow you to apply what you have learned in the chapter to real-world scenarios or hypothetical, but realistic, situations.

Post your answers to the questions in each thread prior to **midnight ET on Thursday**. Please do not be late with this post because your classmates will be relying on you to post on time to give them a post to respond to later in the week. A discussion period will then ensue from Thursday through Sunday. Read your classmates' posts and post at least **two** follow-up messages to your classmates' posts in **each** thread prior to **midnight ET on Sunday**. Some threads may require you to post more than two replies, so make sure you read the directions carefully.

Of course, you may always post more than the required number of replies and you are encouraged to continue participating in the discussion even after you have met the minimum number of posts required.

Your discussion forum participation will be considered at the end of the semester if your grade is on the borderline. Borderline grades will only be rounded up if you have exceeded the minimum requirements on the discussion forum and shown insight and critical thinking in all of your posts and replies.

Your follow-up posts must contain substance and should add additional insight to your classmates' opinions or challenge their opinions. It is never sufficient to simply say, "I agree with what you wrote" or "I really liked your post." You must use your follow-up posts as a way to continue the discussion at a high level of discourse. Be sure to read the follow-up posts to your own posts and reply to any questions or requests for clarification, including questions posted by your professor. You will be expected to log into the classroom several times each week to participate in the class discussion.

Discussion forum postings are a large part of your grade and I will be looking for quality and depth in your postings. I will also expect you to list your references at the end of each post. References should be in APA citation format.

### Reading Assignments:

Expect weekly reading assignments to align with each lesson.

### Assignments:

Your assignments will include programming and short answer responses. Weekly assignments are included in Announcement, Lessons, and syllabus. Review and complete your assignments by Sunday of each week.

### Final Project:

The final project will be open notes, non-proctored, and untimed small java project.

### Grading:

Name	Grade %
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## Materials

**Book Title:** Java: The Complete Reference, 9th Ed. - the VitalSource e-book is provided via the APUS Bookstore.

**Author:** Schildt, Herbert

**Publication Info:** McGraw-Hill

**ISBN:** 9780071808552

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**Book Title:** APUS does not supply this software. Students must have access to the required software. The listing can be found at <http://apus.libguides.com/bookstore>

**Author:** N/A

**Publication Info:** N/A

**ISBN:** N/A

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**Book Title:** Java Development Kit - Download Java SE Development Kit 8  
<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

**Author:**

**Publication Info:**

**ISBN:** Software Note

Additional references are found in the Lessons Page of the classroom.

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## Course Guidelines

### Citation and Reference Style

- Attention Please: Students will follow the APA Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or

composition format must follow the citation style cited in the APA Format.

## **Tutoring**

- [Tutor.com](https://www.tutor.com) offers online homework help and learning resources by connecting students to certified tutors for one-on-one help. AMU and APU students are eligible for 10 free hours\* of tutoring provided by APUS. Tutors are available 24/7 unless otherwise noted. Tutor.com also has a SkillCenter Resource Library offering educational resources, worksheets, videos, websites and career help. Accessing these resources does not count against tutoring hours and is also available 24/7. Please visit the APUS Library and search for 'Tutor' to create an account.

## **Late Assignments**

- Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. The due date for each assignment is listed under each Assignment.
- Generally speaking, late work may result in a deduction up to 20% of the grade for each day late, not to exceed 5 days.
- As a working adult I know your time is limited and often out of your control. Faculty may be more flexible if they know ahead of time of any potential late assignments.

## **Turn It In**

- Faculty may require assignments be submitted to Turnitin.com. Turnitin.com will analyze a paper and report instances of potential plagiarism for the student to edit before submitting it for a grade. In some cases professors may require students to use Turnitin.com. This is automatically processed through the Assignments area of the course.

## **Academic Dishonesty**

- Academic Dishonesty incorporates more than plagiarism, which is using the work of others without citation. Academic dishonesty includes any use of content purchased or retrieved from web services such as CourseHero.com. Additionally, allowing your work to be placed on such web services is academic dishonesty, as it is enabling the dishonesty of others. The copy and pasting of content from any web page, without citation as a direct quote, is academic dishonesty. When in doubt, do not copy/paste, and always cite.

## **Submission Guidelines**

- Some assignments may have very specific requirements for formatting (such as font, margins, etc) and submission file type (such as .docx, .pdf, etc) See the assignment instructions for details. In general, standard file types such as those associated with Microsoft Office are preferred, unless otherwise specified.

## **Disclaimer Statement**

- Course content may vary from the outline to meet the needs of this particular group.

## **Communicating on the Forum**

- Forums are the heart of the interaction in this course. The more engaged and lively the exchanges, the more interesting and fun the course will be. Only substantive comments will receive credit. Although there is a final posting time after which the instructor will grade comments, it is not sufficient to wait until the last day to contribute your comments/questions on the forum. The purpose of the forums is to actively participate in an on-going discussion about the assigned content.
- "Substantive" means comments that contribute something new and hopefully important to the discussion. Thus a message that simply says "I agree" is not substantive. A substantive comment contributes a new idea or perspective, a good follow-up question to a point made, offers a response to a question, provides an example or illustration of a key point, points out an inconsistency in an argument, etc.
- As a class, if we run into conflicting view points, we must respect each individual's own opinion. Hateful and hurtful comments towards other individuals, students, groups, peoples, and/or societies will not be tolerated.

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# University Policies

## [Student Handbook](#)

- [Drop/Withdrawal policy](#)
- [Extension Requests](#)
- [Academic Probation](#)
- [Appeals](#)
- [Disability Accommodations](#)

The mission of American Public University System is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.

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