# CISS 238: Java Programming

| Location:                 | Evening  |
|---------------------------|--|
| Address:                  | 1001 Rogers Street Columbia, MO 65216                                |
| Section:                  | 19FALL1/CISS/238/EVA   |
| Semester Credit Hours:    | 3  |
| Class Day(s) and Time(s): | Wednesday 5:30 PM - 9:30 PM from August 26, 2019 to October 19, 2019 |
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## Course Information

#### Catalog Description

An introduction to programming using Java. Topics include methods, classes, objects, advanced object concepts, input, selection, repetition, arrays and strings, applet, HTML, graphics, inheritance concepts, abstract windows tool kit, file input and output.

**Prerequisites:** Grade of C or higher in MATH 150, or a score of 24 or higher on the math portion of the ACT or 540 or higher on the math portion of the SAT.

#### Additional Notes

Late assignments will be penalized up to 10% (roughly a letter grade) for every day late. Should circumstances prevent you from making due dates, you are best served by notifying me in advance and keeping me informed of the situation that is preventing you from completing the assignment. No assignment shall be accepted after 1 week past the due date. Prior approval must be given to take a quiz past the due date. No Programming Term Projects will be accepted past the due date.

The material in this course is highly dynamic and will require you to analyze and solve challenges by applying programming constructs. The syntax of the Java language is fairly simple; however, the application of the syntax can, and will, provide a challenge to you. You will be given ample opportunity to learn each objective so that you will be prepared for the final exam as well as real world challenges. Each week, we will focus on different aspects of the Java language. You will learn about objects early as Java is an object-oriented language and is the basis for most development projects. To assist you in developing your applications, we will be using an Integrated Development Environment (IDE) to complete our assignments. This will assist you in learning the syntax of the language as well as provide you with experience using an IDE that is used professionally within the industry.

Download the Eclipse IDE here: https://www.eclipse.org/downloads/

Click on the installer that downloads. You may need to download additional software. The installer will open a web page with instructions/necessary software. If so, install one of the JDK's, we'll certainly be doing java development.

As part of Truition<sup>SM</sup>, students will receive their course materials automatically as described below.

P Gaddis. (2017). Starting Out with Java: Early Objects with access to MyLab Programming (6th). Pearson. eText

#### **Bookstore Information**

Visit https://www.ccis.edu/bookstore.aspx for details.

eText Information

If a course uses an eText, (see textbook information above) the book will be available directly in Desire2Learn (D2L) seven days before the session begins, if registered for courses prior to that date. Upon first login to VitalSource, students should use their CougarMail email address; alternate email addresses cannot be used. More information about how to use the VitalSource platform, including offline access to eTexts, can be found in D2L.

Physical Course Materials Information

Students enrolled in courses that require physical materials will receive these materials automatically at the shipping address on file with Columbia College. Delivery date of physical materials is dependent on registration date and shipping location. Please refer to confirmation emails sent from Columbia College for more details on shipping status.

**Returns:** Students who drop a class are responsible for returning any physical course materials that were shipped. To initiate a return, visit Ingram Returns to generate a pre-paid return label. Materials from dropped courses must be returned within 30-days of receipt. Failure to return physical items from a dropped course will result in a charge to the student account for all unreturned items.

**Note:** Students who opt-out of having their books provided as part of <u>Tru</u>ition<sup>SM</sup> are responsible for purchasing their own course materials.

## **L** Technology Requirements

#### THIS IS A TECHNOLOGY-ENRICHED COURSE WHICH COMBINES IN-SEAT INSTRUCTION WITH ONLINE LEARNING.

Participation in this course will require the basic technology for all classes at Columbia College:

- A computer with reliable internet access
- A web browser
- Acrobat Reader
- Microsoft Office or another word processor such as Open Office

For more information, see technical requirements.

## Course Learning Outcomes

- 1. Demonstrate an understanding of Java syntax.
- 2. Demonstrate an understanding of Unified Modeling Language.
- 3. Demonstrate an understanding of Object-Oriented Programming.
- 4. Solve basic business problems with Java.

#### Scrading

Grading Scale

Percent

| Final Exam<br>Seven Weekly Quizzes<br>Programming Assignments(10) | 100<br>400<br>400 | 10%<br>10%<br>40%<br>40% |  |  |  |
|---|-------------------|--------------------------|--|--|--|
| Final Exam<br>Seven Weekly Quizzes                                | 100<br>400        | 10%<br>10%<br>40%        |  |  |  |
| Final Exam  | 100               | 10%                      |  |  |  |
| Programming rent Project  | 100               | 10%                      |  |  |  |
| Dreamming Term Dreject  | 100               | 100/                     |  |  |  |
| Assignment Category   | Points            | Percent                  |  |  |  |
| Grade Weights   |                   |                          |  |  |  |
| F   | 0 - 599           | 0-59%                    |  |  |  |
| D   | 600 - 699         | 60-69%                   |  |  |  |
| С   | 700 - 799         | 70-79%                   |  |  |  |
| В   | 800 - 899         | 80-89%                   |  |  |  |
|   |                   |                          |  |  |  |

# Schedule of Due Dates

| Week 1                    |        |                   |
|---------------------------|--------|-------------------|
| Assignment                | Points | Due               |
| Quiz 1                    | 57     | Sunday by 11:59pm |
| Programming Assignment 1  | 40     | Sunday by 11:59pm |
| Programming Assignment 2  | 40     | Sunday by 11:59pm |
| Week 2                    |        |                   |
| Assignment                | Points | Due               |
| Quiz 2                    | 57     | Sunday by 11:59pm |
| Programming Assignment 3  | 40     | Sunday by 11:59pm |
| Programming Assignment 4  | 40     | Sunday by 11:59pm |
| Week 3                    |        |                   |
| Assignment                | Points | Due               |
| Quiz 3                    | 57     | Sunday by 11:59pm |
| Programming Assignment 5  | 40     | Sunday by 11:59pm |
| Programming Assignment 6  | 40     | Sunday by 11:59pm |
| Week 4                    |        |                   |
| Assignment                | Points | Due               |
| Quiz 4                    | 57     | Sunday by 11:59pm |
| Programming Assignment 7  | 40     | Sunday by 11:59pm |
| Week 5                    |        |                   |
| Assignment                | Points | Due               |
| Programming Assignment 8  | 40     | Sunday by 11:59pm |
| Quiz 5                    | 57     | Sunday by 11:59pm |
| Week 6                    |        |                   |
| Assignment                | Points | Due               |
| Programming Assignment 9  | 40     | Sunday by 11:59pm |
| Quiz 6                    | 57     | Sunday by 11:59pm |
| Week 7                    |        |                   |
| Assignment                | Points | Due               |
| Quiz 7                    | 58     | Sunday by 11:59pm |
| Programming Assignment 10 | 40     | Sunday by 11:59pm |
| Week 8                    |        |                   |

| Assignment               | Points | Due                 |
|--------------------------|--------|---------------------|
| Final Exam               | 100    | In Class Week 8     |
| Programming Term Project | 100    | Saturday by 11:59pm |

Total Points: 1000

# C Assignment Overview

## Assignments

There are 10 programming assignments worth 40 points each. The assignments must be submitted to the course dropbox Sunday by 11:59pm. Programming Term Project can be started anytime during Week 7 and must be submitted before Saturday of Week 8. This project will use many of the topics covered during this course.

## Examinations

There will be a 20 question 57 point multiple choice/true-false quiz every week (1 though 7). Each quiz will be based on the current chapter to test your understanding of the programming concepts. The weekly quiz must be taken by 11:59pm C.T. Sunday of each week. Note: One quiz will be worth 58 points. This will bring the points total to an even 400.

There will be a twenty-five question, 100 point multiple choice final exam given in class Week 8. The exam will be based on the chapters covered in the course to test your understanding of the programming concepts.

# Course Outline

Click on each week to view details about the activities scheduled for that week.

# Week 1: Fundamentals and Firsts

## Readings

- Chapter 1
- Chapter 2
- Chapter 3

## Quiz 1

## **Programming Assignment 1**

Complete the following Programming Assignment:

Chapter 2: Programming Challenge 9, Miles-per-Gallon, pages 124-125

MilesPerGallon.java

#### Programming Assignment 2

Complete the following Programming Assignments:

Chapter 3: Programming Challenge 1, Employee Class, pages 187-188

- Employee.java
- EmployeeDemo.java

# Week 2: Decision Structures and Loops

#### Readings

Chapter 4

Chapter 5

#### Quiz 2

## **Programming Assignment 3**

Complete the following Programming Assignments:

Chapter 4: Programming Challenge 4, Software Sales, page 267

SoftwareSales.java

SoftwareSalesDemo.java

#### **Programming Assignment 4**

Complete the following Programming Assignment:

Chapter 5: Programming Challenge 5, Hotel Occupancy, page 345

• HotelOccupancy.java

# Week 3: Objects, Classes and Arrays

#### Readings

- Chapter 6
- Chapter 7

#### Quiz 3

## **Programming Assignment 5**

Complete the following Programming Assignment:

Chapter 6: Programming Challenge 5, Month Class, page 439-440

• Month.java

## **Programming Assignment 6**

Complete the following Programming Assignments:

Chapter 7: Programming Challenge 2, Payroll Class, page 536

- Payroll.java
- PayrollDemo.java

# Week 4: String Objects, Tokenizers and Wrapper Classes

#### Readings

Chapter 8

#### Quiz 4

## **Programming Assignment 7**

Complete the following Programming Assignment: Chapter 8:

Programming Challenge 1, Backward String, page 595

• BackwardString.java

## Week 5: Inheritance, Polymorphism and Abstract Classes

#### Readings

• Chapter 9

Programming Assignment 8 Complete the following Programming Assignments: Chapter 9: Programming Challenge 5, Course Grades, page 683

- CourseGrades.java
- CourseGradesDemo.java
- Essay.java
- FinalExam.java
- GradedActivity.java
- PassFailActivity.java
- PassFailExam.java

#### Quiz 5

#### Week 6: Java Exceptions, Feedback and Advance File I/O

#### Readings

Chapter 10

#### **Programming Assignment 9**

Complete the following Programming Assignments:

Chapter 10: Programming Challenge 1, Test Scores Class, page 741

- TestScores.java
- TestScoresDemo.java

#### Quiz 6

## Week 7: Graphical User Interface (GUI) and Abstract Window Toolkit (JavaFX)

#### Readings

- Chapter 11
- Chapter 12
- Chapter 15

#### Quiz 7

#### **Programming Assignment 10**

Complete the following Programming Assignments:

Chapter 11: Programming Challenge 3. Tip, Tax, and Total, page 804

• TipTaxAndTotal.java

## Week 8: Course Project & Final Exam

#### **Final Exam**

#### **Programming Term Project**

Complete the following Programming Assignments:

Chapter 12: Programming Challenge 5, Shopping Cart System, page 888

Create an application that works like a shopping cart system for an online book store. In the book's source code (available at www.pearsonhighered.com/gaddis) you will find a file named BookPrices.txt. This file contains the names and prices of various books, formatted in the following fashion:

- I Did It Your Way, 11.95
- The History of Scotland, 14.50
- Learn Calculus in One Day, 29.95
- Feel the Stress, 18.50

Each line in the file contains the name of a book, followed by a comma, followed by the book's retail price. When your

application begins execution, it should read the contents of the file and store the book titles in a ListView. The user should be able to select a title from the list and add it to a "shopping cart," which is simply another ListView control. The application should have buttons or menu items that allow the user to remove items from the shopping cart, clear the shopping cart of all selections, and check out. When the user checks out, the application should calculate and display the subtotal of all the books in the shopping cart, the sales tax (which is 7 percent of the subtotal), and the total.

## Additional Resources

Online databases are available at library.ccis.edu. You may access them using your CougarTrack login and password when prompted.

# **Technical Support**

If you have problems accessing the course or posting your assignments, contact your instructor, the Columbia College Technology Solutions Center, or the D2L Helpdesk for assistance. If you have technical problems with the VitalSource eText reader, please contact VitalSource. Contact information is also available within the online course environment.

- Columbia College Technology Solutions Center: CCHelpDesk@ccis.edu, 800-231-2391 ex. 4357
- D2L Helpdesk: helpdesk@d2l.com, 877-325-7778
- VitalSource: support@vitalsource.com, 1-855-200-4146

## **Online Tutoring**

Smarthinking is a free online tutoring service available to all Columbia College students. Smarthinking provides real-time online tutoring and homework help for Math, English, and Writing. Smarthinking also provides access to live tutorials in writing and math, as well as a full range of study resources, including writing manuals, sample problems, and study skills manuals. You can access the service from wherever you have a connection to the Internet. I encourage you to take advantage of this free service provided by the college.

Access Smarthinking through CougarTrack at Students -> Academics -> Resources.

# Columbia College Policies and Procedures

The policies set forth in the **Policy Library** are the current official versions of College policies and supersede and replace any other existing or conflicting policies covering the same subject matter. For more information on policies applicable to students, see **Student Policies**. For more information on policies applicable to the entire Columbia College community, see **College-Wide Policies**.

Students are expected to read and abide by the College policies. Policies of particular interest to students include, but not limited to the following:

- Graduate Grading Policy
- Undergraduate Grading Policy
- Registration Policy and Procedures
- Withdrawal Policy
- Alcohol and Other Drugs Policy
- Family Educational Rights and Privacy Act (FERPA)

## Additional Policies:

## Academic Integrity and Plagiarism

Academic integrity is a cumulative process that begins with the first college learning opportunity. Students are responsible for knowing and abiding by the **Academic Integrity Policy and Procedures** and may not use ignorance of either as an excuse for academic misconduct. Additionally, all required papers may be submitted for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers may be included in the Turnitin.com reference database for the purpose of detecting plagiarism. This service is subject to the Terms and Conditions of Use posted on the Turnitin.com site.

# **Disability Resources**

If you have a disability that requires an accommodation, please speak with the instructor and consult the Student Accessibility

**Resources** office. Student Accessibility Resources staff will determine appropriate accommodations and will work with your instructor to make sure these are available to you. To find additional information, see our **ADA and Section 504 Policy for Students**.

Notice of Non-Discrimination and Equal Opportunity:

The College has a process through which students, faculty, staff and community members who have experienced or witnessed incidents of discrimination, harassment, or retaliation on the basis of protected status, can report their experiences to a College official. For more information, see our Non-Discrimination and Equal Opportunity Policy and Complaint Resolution Procedure.

## Title IX and Sexual Misconduct

The College is committed to addressing the issues of discrimination, harassment and sexual misconduct in the educational and workplace landscape and will continue to modify policies, procedures and prevention efforts as needed. For more information, see the College's **Title IX and Sexual Misconduct Policy**.

# Course Policies and Procedures:

## Attendance Policy

Columbia College students are expected to attend all classes and laboratory periods for which they are enrolled.

For classes with an online component, attendance for a week includes submitting any assigned online activity. Assigned activities are scheduled prior to the course commencing. Assigned activity due dates are subject to change based on actual course progression and will be adjusted as necessary. Attendance for the week is based upon the date work is submitted. A class week is defined as the period of time between Monday and Sunday (except for week 8, when the work and the course will end at 11:59 PM Central Time on Saturday.) The course and system deadlines are based on the Central Time Zone.

Students are directly responsible to instructors for class attendance and work missed during an absence for any cause. If absences jeopardize progress in a course, the College reserves the right to drop or withdraw students from classes. For additional information, see the Administrative Withdrawal for Non-Attendance heading in the **Withdrawal Policy**.

## CougarMail

All students are provided a CougarMail account when they enroll in classes at Columbia College. You are responsible for monitoring email from that account for important messages from the College and from your instructor.

Students should use email for private messages to the instructor and other students. The class discussions are for public messages so the class members can each see what others have to say about any given topic and respond.

## Late Assignment Policy

All classes rely on participation and a commitment to your instructor and your classmates to regularly engage in the reading, discussion and writing assignments. You must keep up with the schedule of reading and writing to successfully complete the class.

No late assignments will be accepted without the prior approval of the instructor.

Acceptance of a late assignment is at the discretion of the instructor.

Make-up examinations may be authorized for students who miss regularly-scheduled examinations due to circumstances beyond their control. Make-up examinations must be administered as soon as possible after the regularly scheduled examination period and must be administered in a controlled environment.

## Student Conduct

All Columbia College students, whether enrolled in a land-based or online course, are responsible for behaving in a manner consistent with Columbia College's **Student Conduct Code** and **Acceptable Computing Use Policy**. Students violating these policies or any other College policy will be referred to the office of Student Affairs and/or the office of Academic Affairs for possible disciplinary action. The Student Code of Conduct, the **Student Behavioral Misconduct Policy and Procedures**, and the Acceptable Computing Use Policy can be found in the Policy Library at **ccis.edu/policies**. The adjunct faculty member maintains the right to manage a positive learning environment all students must adhere to the conventions of online etiquette when enrolled in a course with an online component.