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| **Course:** | CSCI 2469 – Java Programming II | **Prerequisites:** | CSCI 2467 |
| **Credits:** | 3 | **Class hours per week:** | Lecture: 2 / Lab: 3 |
| **Day and time:** | Saturday : 8:00 am – 12:50 pm | **Building and room:** | DE 217 |
| **Instructor:** | Craig J Wright | **E-mail address:** | [cwrigh10@cscc.edu](mailto:cwrigh10@cscc.edu) |

**Description of Course**

CSCI 2469 is a continuation of Java Programming I. More advanced work in Java applications, structures, methods, and arrays will be included. Students will be introduced to Eclipse – a popular Integrated Development Environment (IDE). In addition, students will learn about JDBC using MySQL as the background database. They will also create and deploy servlets and JSPs using Tomcat. Program debugging, error and exception handling, and logging will continue to be emphasized.

**Student Learning Outcomes**

Upon successful completion of this course, the student should be able to:

* Understand how exceptions work
* Create applications based on JFrame and Swing components
* Perform sequential I/O operations
* Understand and use the final qualifier
* Understand and use the Collections framework
* Use overloaded methods
* Implement accessor and mutator methods
* Understand and use the String, StringBuilder, and StringBuffer classes
* Understand and use abstract classes and interfaces
* Use JDBC to access a SQL-based database
* Understand and implement simple Servlets and Java Server Pages (JSP)

**General Education Outcomes**

Columbus State Community College's general education outcomes are an integral part of the curriculum and central to the mission of the college. The faculty at Columbus State has determined that these outcomes include the following competencies:

* Critical Thinking
* Effective Communication
* Community and Civic Responsibility
* Quantitative Literacy
* Scientific and Technological Effectiveness
* Information Literacy

**Course Materials Suggested**

USB Flash Drive (Recommended minimum size of 4 GB)

**Textbook, Manuals, References, and other Readings**

Textbook: *Introduction to Java Programming: Comprehensive Version*

By: Y. Daniel Liang

10th edition

Publisher: Boston : Pearson

ISBN-10: 0-13-376131-2

ISBN-13: 978-0-13-376131-3

Learning the Java Language: <http://docs.oracle.com/javase/tutorial/java/TOC.html>

Javatm Platform, Standard Edition 8: <http://docs.oracle.com/javase/8/docs/api/index.html>

Various handouts (Word documents) Available on Blackboard in the handouts section

**General instructional methods**

Instruction methods will consist of lecture, individual lab problems and group lab problems.

**Assessment**

Columbus State Community College is committed to assessment (measurement) of student achievement of academic outcomes. This process addresses the issues of what you need to learn in your program of study and if you are learning what you need to learn. The assessment program at Columbus State has four specific and interrelated purposes:

1. to improve student academic achievements;
2. to improve teaching strategies;
3. to document successes and identify opportunities for program improvement;
4. to provide evidence for institutional effectiveness.

In class you are assessed and graded on your achievement of the outcomes for this course. You may also be required to participate in broader assessment activities.

**Standards and Methods for Evaluation**

10 Lab assignments @ 20 points each 200 points

8 On-line quizzes @ 20 points each 160 points

8 In-class exercises @ 10 points each 80 points

Midterm examination 1 Questions = 50% / Programming = 50% 100 points

Midterm examination 2 Questions = 50% / Programming = 50% 100 points

Final examination Questions = 50% / Programming = 50% 100 points

**Total 740 points**

**Grading Scale**

666 – 740 points 90 – 100% A

592 – 665 points 80 – 89% B

518 – 591 points 70 – 79% C

444 – 517 points 60 – 69% D

0 – 443 points 0 – 59% E

**Special Course Requirements**

All requested files for each assignment are to be emailed to the instructor at [cwrigh10@cscc.edu](mailto:cwrigh10@cscc.edu) via the student’s Columbus State email address. Please **do not** submit your assignments via Blackboard. Please submit **only** those files that are requested for each assignment. ***Please put “CSCI-2469 at the beginning of the subject.***

***Note that assignments, questions, etc. sent via an email addresses other than your student email address (e.g., from your personal or work email address) will not be accepted.***

Comments similar to the example below **must** be present as the first lines of each submitted Java source file. Similar comments must be present near of top of any HTML or JSP files that are submitted as part of all assignments.

//===================================

// Columbus State Community College

// CSCI 2469 - Spring Semester 2016

// Assignment: <label as assigned>

// Programmer: <your name>

//===================================

Lab assignments are due at 11:59 pm on the dates indicated on the last page of this syllabus. Lab assignments that are turned in late will receive **½** credit. Late lab assignments will not be accepted if they are more than one week late.

In-class (and Extra Credit) exercises are due at the end of the class session in which they are assigned. Late In-class (and Extra Credit) exercise assignments will not be accepted.

***Quizzes and exams that are missed cannot be made up except with prior arrangement with the instructor.***

***Note that In-class and extra credit exercises cannot be made up for any reason.***

**Instructor Office Hours**

You can meet with the instructor before or after class or by making an appointment. The best way to contact the instructor is by sending an email to the instructor at [cwrigh10@cscc.edu](mailto:cwrigh10@cscc.edu). Please attach the appropriate file(s) to your message. If you need me to call you back, please provide your telephone number and the best time(s) to call. ***Don’t wait until the last minute to contact the instructor***.

**Attendance Policy**

The student is responsible for reading the syllabus, text assignments, and lab rules relating to this course. Students are expected to attend all classes and to ***read assigned chapters prior to class***. Absences can affect your progress and success in the course. ***Time spent in the lab outside of class does not replace class time***. *Successful completion of all prerequisites to this course is expected*.

**Holidays**

Monday, January 18, 2016 Dr. Martin Luther King Jr. Day (campus closed)

Friday, February 12, 2016 President’s Day Observed (campus closed)

Monday – Saturday, March 14 – March 19, 2016 Spring Break (offices open; no classes)

Sunday, March 27, 2016 Easter Sunday (campus closed)

Thursday, April 21, 2016 In-Service Day (offices closed, no day classes)

**Other Important Dates**

Monday, January 18, 2016 Spring Semester Begins

Tuesday, February 9, 2016 Last day to drop without a “W”

Thursday, January 28, 2016 Last day to drop and receive a 100% refund

Tuesday, February 9, 2016 Last day to drop and receive a 50% refund

Monday, March 28, 2016 Last day to drop full-term classes

Saturday, May 14, 2016 Spring Semester Ends

**Student Code of Conduct**

As an enrolled student at Columbus State Community College, you have agreed to abide by the Student Code of Conduct as outlined in the Student Handbook. You should familiarize yourself with the student code. The Columbus State Community College expects you to exhibit high standards of academic integrity, respect and responsibility. Any confirmed incidence of misconduct, including plagiarism and other forms of cheating, will be treated seriously and in accordance with College Policy and Procedure 7-10.

You can access the current Student Handbook at <http://www.cscc.edu/Handbook/index.asp>.

**Americans with Disabilities Act (ADA) Policy**

It is Columbus State policy to provide reasonable accommodations to students with documented disabilities. If you would like to request such accommodations because of physical, mental or learning disability, please contact the Department of Disability Services, 101 Eibling Hall, 614-287-2570 (Voice/TTY). You can access the Disability Services Website at <http://www.cscc.edu/services/disability/>.

Delaware Campus students may also contact an advisor in the Student Services Center, first floor Moeller Hall at 740-203-8000 (ask for Delaware Campus advising), or <http://www.cscc.edu/delaware>, for assistance.

**Inclement Weather or Other Emergencies**

In the event of severe weather or other emergencies that could force the college to close or to cancel classes, such information will be broadcast on radio stations and television stations. Students who reside in areas that fall under a Level III emergency should not attempt to drive to the college even if the college remains open.

Assignments due on a day the college is closed will be due the next scheduled class period. If an examination is scheduled for a day the campus is closed, the examination will be given on the next class day. If a laboratory is scheduled on the day the campus is closed, it will be made up at the next scheduled laboratory class. If necessary, laboratory make-up may be held on a Saturday.

Students who miss a class because of weather-related problems when the class is held as scheduled are responsible for reading and other assignments as indicated in the syllabus. If a laboratory or examination is missed, contact the instructor as soon as possible to determine how to make up the missed exam or lab.

Remember, it is the student’s responsibility to keep up with reading and other assignments when a scheduled class does not meet, whatever the reason.

**Financial Aid Attendance Reporting**

Columbus State is required by federal law to verify the enrollment of students who participate in Federal Title IV student aid programs and/or who receive educational benefits through the Department of Veterans Affairs. It is the responsibility of the College to identify students who do not commence attendance or who stop attendance in any course for which they are registered and paid. Non-attendance is reported quarterly by each instructor, and results in a student being administratively withdrawn from the class section. Please contact the Financial Aid Office for information regarding the impact of course withdrawals on financial aid eligibility.

**Units of Instruction** - *The following schedule is subject to change at the discretion of the instructor*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Class Date** | **Objectives/Goals** | **Reading Assignment**  ***(To be read before class)*** | **Labs** | **In-Class Exercise** | **Quiz / Exam** |
| **WEEK 1**  Jan 23 | class Introduction / review the syllabus / javadoc comments / using packages / error and exception handling / understanding Java coding conventions | **Handouts on Blackboard:** How to Write Documentation Comments / How to Use Java Packages / Error and Exception Handling / Java Coding Conventions | Lab 1  Due: 1/29  Late: 2/5 | In-class  Exercise 1 |  |
| **WEEK 2**  Jan 30 | Identify types of testing / JUnit / TestNG | **Handouts on Blackboard:** Testing Information | Lab 2  Due: 2/5  Late: 2/12 | In-class  Exercise 2 |  |
| **WEEK 3**  Feb 6 | Design and use abstract classes / generalize wrapper classes / specify common behavior using interfaces / define natural order using Comparable | Chapter 13:  Abstract Classes and Interfaces | Lab 3  Due: 2/12  Late: 2/19 | In-class  Exercise 3 | Quiz 1  (Handouts) |
| **WEEK 4**  Feb 13 | Distinguish between JavaFX, Swing, and AWT / create GUI applications using JavaFX | Chapters 14 and 16:  JavaFX Basics  JavaFX UI Controls and Multimedia | Lab 4  Due: 2/26  Late: 3/4 | In-class  Exercise 4 | Quiz 2  (Chapter 13) |
| **WEEK 5**  Feb 20 |  |  |  |  | Midterm  Exam 1 |
| **WEEK 6**  Feb 27 | Discover how I/O is processed in Java / distinguish between text I/O and binary I/O / implement the Serializable interface | Chapter 17:  Binary I/O | Lab 5  Due: 3/4  Late: 3/11 | Extra Credit Exercise 1 |  |
| **WEEK 7**  Mar 5 | Describe what a recursive method is and the benefits of using recursion / explain how recursive method calls are handled in the call stack | Chapter 18:  Recursion |  | In-class  Exercise 5 | Quiz 3  (Chapter 17) |
| **WEEK 8**  Mar 12 | Describe the benefits of generics / using generic classes and interfaces / explain why generic types can improve reliability and readability | Chapter 19:  Generics | Lab 6  Due: 3/25  Late: 4/1 | In-class  Exercise 6 | Quiz 4  (Chapter 18) |
| **Spring Break**  Mar 14-19 |  |  |  |  |  |
| **WEEK 9**  Mar 26 | Explore the relationship between interfaces and classes in the Java Collections Framework hierarchy | Chapter 20:  Lists, Stacks, Queues, and Priority Queues |  | Extra Credit Exercise 2 | Quiz 5  (Chapter 19) |
| **WEEK 10**  Apr 2 |  |  |  |  | Midterm  Exam 2 |
| **WEEK 11**  Apr 9 | Get an overview of multithreading / implementing the Runnable interface / extending the Thread class | Chapter 30:  Multithreading and Parallel Programming | Lab 7  Due: 4/15  Late: 4/22 | Extra Credit Exercise 3 |  |
| **WEEK 12**  Apr 16 | Explain the terms: TCP, IP, domain name, domain name server / create servers using server sockets and clients using client sockets | Chapter 31:  Networking | Lab 8  Due: 4/22  Late: 4/29 | In-class  Exercise 7 | Quiz 6  (Chapter 30) |
| **WEEK 13**  Apr 23 | Understand concepts of databases and database management systems / accessing a database using JDBC™. | Chapter 32:  Java Database Programming | Lab 9  Due: 5/6  Late: 5/13 | Extra Credit Exercise 4 | Quiz 7  (Chapter 31) |
| **WEEK 14**  Apr 30 |  |  |  | In-class  Exercise 8 |  |
| **WEEK 15**  May 7 | Explain what JSF is / create a JSF page / using JSF GUI components | Chapter 33:  JavaServer Faces | Lab 10  Due: 5/13  Late: n/a | Extra Credit Exercise 5 | Quiz 8  (Chapter 32) |
| **Week 16**  May 14 |  |  |  |  | Final Exam |