

**CIS-257 Object-Oriented Java Programming II**  
**Spring 2020**  
**Bristol Community College**  
**Computer Information Systems Department**

---

### **Catalog Description**

The course addresses software development using advanced object-oriented concepts and JAVA. It covers concurrency and synchronization issues and advanced topics of the object paradigm such as inheritance and polymorphism. It introduces the programming of graphics using JAVA Swing classes and examines File Streams and I/O Processing in detail. It compares the procedural paradigm with the object paradigm. It also addresses issues of programming with multiple processes and programming of systems with exception-handling capabilities. These concepts are introduced in the context of developing software using software tools, including libraries of components. Three class hours and two lab hours per week. Approximately 3-5 hours per week of computer time are required to complete the programming assignments.

Prerequisite: CIS 157 (formerly CIS 73).

---

Instructor: Igor Kholodov [Igor.Kholodov@bristolcc.edu](mailto:Igor.Kholodov@bristolcc.edu)  
Office: K211  
Telephone: 774-357-3328

---

### **Meeting days and times**

Lecture: room K-105 Tuesday Lecture 12:30 pm – 3:45 pm. Thursday Lab 12:30 pm – 1:45 pm

### **Student Learning Outcomes**

At the completion of this course the student will be able to:

- understand the principals of the object-oriented programming
- learn concepts of programming by contract
- design and implement classes of objects
- use inheritance and polymorphism
- create applications using graphical user interface
- implement recursive algorithms and understand recursive programming

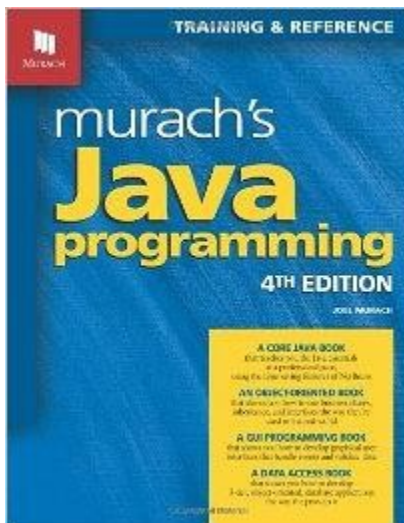
Specific goals to meet these outcomes include:

- learning how to work with packages

- understanding the concept of an interface
  - understanding the principals of exception handling
  - understanding the use of closely related classes and enumerations
  - learning how to work with Java Swing classes
  - learning how to work with text files, binary files, random access files, I/O sockets and networking
  - grasping the principals of concurrency, synchronization, and mutual exclusion
- 

## Recommended Textbook

---



- TITLE: Murach's Java Programming
  - AUTHOR: Murach
  - EDITION: 4th
  - PUBLISHER: Mike Murach & Associates, Inc.
  - ISBN: 9781890774653
- 

## Success Tip

Here is a success tip From BCC Student Handbook, page 8: *"For each hour in class, you should expect to study at least 2-3 hours outside of class. Know your limits, avoid over scheduling yourself (whether it be work or class). Set up a schedule that you know will allow you to earn good grades. And, maintain a day planner to help you stay organized."*

## Course Outline

1. CIS-157 material review

2. Strings and the StringBuilder Class - Ch 13
3. Inheritance - Ch 8
4. Interfaces - Ch 9
5. Other object-oriented programming skills - package - JAR files - nested classes - javadoc - enumerations - Ch 10
6. Exceptions - Ch 14
7. GUI Swing forms - Ch 15
8. Controls and event handlers - Ch 16

\_\_\_\_\_ *Spring Break* \_\_\_\_\_

9. Applets - Ch 17
10. Text and binary files - Ch 18
11. Working with XML - Ch 19
12. Database programming intro - Ch 20
13. JDBC and databases - Ch 21
14. Multithreading - Ch 22
15. Application deployment - Ch 23

\_\_\_\_\_ *Final Exam* \_\_\_\_\_

## **Disability Accommodations**

If you are a student who would normally seek accommodations in a traditional, face to face classroom, please speak to me and the Office of Disability Services (ODS) as soon as possible. You may contact the Office of Disability Services to arrange for appropriate accommodations by calling (508) 678-2811 (Fall River, ext. 2955; Attleboro and Taunton, ext. 2996; New Bedford, ext.2955 and/or 4011) or by stopping by Room L109. You may also contact the Office of Disability Services online at

<http://www.bristolcc.edu/about/publicrecordsrequest/disabilityservices/>

## **Evaluation**

---

Course Evaluation includes:

- Bi-Weekly Programming Assignments

- Bi-Weekly Online Quizzes for selected textbook chapters
- Comprehensive Final Exam

## Minimum Requirements for a Passing Grade

- Complete 80% of the programming assignments with a grade of 60% or higher;
- Earn an average grade of 60% or higher for the final exam.

## Weights for the Final Grade Determination

Programming Assignments: 55%

Quizzes: 30%

Final Exam: 15%

The Final Grades will be assigned as follows:

97-100	A+	87-89	B+	77-79	C+	67-69	D+
93-96	A	83-86	B	73-76	C	63-66	D
90-92	A-	80-82	B-	70-72	C-	60-62	D-
Below 60	F						

## Teaching Methodology

The lecture will be the principal teaching method used in this course. "Handouts" and sample programs will be available on the class web page. Class discussions will be conducted pertaining to the Lab assignments before and after. Software demos and overhead slides will be used.

It will be imperative that the student complete all assigned readings and homework assignments *prior to class*. Failure to do so is a formula for failure. Coming to class prepared is essential for successful completion of the course.

## Extra Help

If you need some serious help with a homework assignment or if you need some one-on-one tutoring help to get caught up with the class, you can make an appointment with the instructor. Appointments can be arranged via e-mail or during class breaks. Half hour time slots are available for that purpose. Simple questions or assistance can be obtained through instructor's e-mail.

## Attendance Policy

Attendance is recorded weekly based on the student's ability to complete programming assignments and quizzes. Students are considered "present" for the week when they submit the required assignment and/or quiz (with a satisfying passing grade) prior to the posted due date. Poor attendance may affect your final grade.

Students are responsible for withdrawing officially if they stop attending any or all classes. Faculty no longer have the ability to withdraw a student from a class. A grade of "F" will be assigned to any student who stops attending a course but does not officially withdraw. Students are encouraged to meet with an advisor before making any changes to their schedule. Withdrawals impact Satisfactory Academic Progress and can place the student at risk for academic probation or dismissal. Students who use financial aid and who subsequently withdraw may be required to return some or all funds received. Withdrawals are accepted until the tenth week of classes. Students may withdraw online in accessBCC, in person at any Enrollment Center, or via their college email to [enrollmentservices@bristolcc.edu](mailto:enrollmentservices@bristolcc.edu). Email requests must come from the student's BCC college email address and must include the student's name, BCC student ID number, and course information (CRN, course and section number).

Email from non-college accounts will not be accepted. If a student officially withdraws after the third week of classes, there will be no tuition or college fee refunds. For more information, see the College Catalog at

<http://bristolcc.edu/>

Students with questions should contact Enrollment Services via any of the methods mentioned above or at 774-357-2590

## **BCC Academic Policies**

College-wide Academic Policies outlined in BCC Academic Catalog directly apply to this course. It is your responsibility to read carefully and understand Academic Information, especially Academic Integrity, Academic Dishonesty, Academic Negligence, Plagiarism, and Classroom conduct, which are published online.



This syllabus is based upon work supported by the [National Science Foundation](#) under Grant No. 0122636. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation (NSF).

**Note:** *This syllabus is a suggested course outline and will be generally followed, subject to change according to the instructor's discretion and needs. Academic flexibility is important.*