COQUITLAM COLLEGE
Established 1982

COURSE OUTLINE

Last Revised: September 2021

COURSE INFORMATION

Course Title: Introduction to Computer Science & Programming II - Lab **Course Number:** CSCI 127 **Credits:** 3

Total Weeks: 14 (Fall, Spring)
12 (Summer)

Total Hours: 39

Course Level: ☒ First Year ☐ Second Year
☐ New ☐ Revised Course
☐ Replacement Course

Department: Computer Science **Department Head:** M. O'Connor

Former Course Code(s) and Number(s) (if applicable): N/A

Pre-requisites (If there are no prerequisites, type NONE): CSCI 120

Co-requisite Statement (List if applicable or type NONE): CSCI 125

Precluded Courses: N/A

COURSE DESCRIPTION

This course is a practical introduction to program development and testing in Java. It is intended for students taking CSCI 125 at the same time to reinforce the concepts taught, such as program design, appropriate use of data types and control structures, fundamental algorithms, elementary data structures, abstract data types, object-oriented programming through practical lab assignments and programming projects.

LEARNING OUTCOMES

Upon successful completion of the course, students will be able to:

- Use appropriate tools for software development
- Develop, test, and evaluate programs
- Use good and defensive programming style
- Use appropriate data types, data structures, and control structures to solve problems
- Use recursive algorithms to solve problems
- Develop object-oriented programming solutions

INSTRUCTION AND GRADING

Instructional (Contact) Hours:

Type	Duration
Lecture	
Seminars/Tutorials	
Laboratory	39
Field Experience	
Other (*specify):*	
Total	39

Grading System: Letter Grades ☒ Percentage ☐ Pass/Fail ☐ Satisfactory/Unsatisfactory ☐ Other ☐

Specify passing grade: 50%

Evaluation Activities and Weighting (total must equal 100%)

Assignments: 30% *Specify number of, variety, and nature of assignments:*	Lab Work: %	Participation: 5% *Specify nature of participation:* Attendance	Project: % *Specify nature of project:*
Quizzes/Test: %	Midterm Project: 30%	Final Project: 35%	Other: %

TEXT(S) AND RESOURCE MATERIALS

Provide a full reference for each text and/or resource material and include whether required/not required.

Tony Gaddis, Godfrey Muganda: Starting Out with Java: From Control Structures through Data Structures, 3rd Edition. Pearson. 2016. ISBN 0134038177 • 9780134038179.

COURSE TOPICS

List topics and sequence covered.

Week	Topic
Week 1	Introduction to program development in Java
Week 2	Introduction to program development tools
Week 3	Decision Structures, Loops and File I/O
Week 4	Methods, Functional decomposition
Week 5	Midterm Project / Object Oriented Design
Week 6	Using Array Structures
Week 7	Soring and Searching Algorithms
Week 8	Object Oriented Design, Enumerated data types
Week 9	Final Project / Text processing and wrapper classes
Week 10	Inheritance and Polymorphism
Week 11	Exception Handling
Week 12	Recursive methods
Week 13	Abstract Data Types
Week 14	Course Review

NOTES

1. Students are required to follow all College policies. Policies are available on the website at: Coquitlam College Policies
2. To find out how this course transfers, visit the BC Transfer Guide at: bctransferguide.ca