



**DEPARTMENT OF SCIENCE**

**COURSE OUTLINE – FALL 2011**

**CS1140 – INTRODUCTION TO COMPUTING SCIENCE – 3 (3-0-3) 90 HOURS**

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**OFFICE HOURS:** TBA

**PREREQUISITE(S)/COREQUISITE:** Pure Math 30

**REQUIRED TEXT/RESOURCE MATERIALS:**

Introduction to Java Programming 8<sup>th</sup> Edition (Comprehensive Version),  
By Y. Daniel Liang, Pearson Publishing  
ISBN 0-13-213080-7

**CALENDAR DESCRIPTION:**

An introduction to Computing Science in which you learn to solve simple problems by writing small computer programs in JAVA. This course presents a high-level object-oriented computing model based on objects as well as primitive data types, control structures and methods. It will be limited to basic elementary algorithms and techniques for constructing elegant and robust solutions to simple problems. The laboratories will offer you the opportunity to translate concepts presented in lectures into interesting application programs.

**CREDIT/CONTACT HOURS:** 3 (3-0-3) 90 Hours

**DELIVERY MODE(S):** In class lecture

**OBJECTIVES (OPTIONAL):**

- Know the mechanical requirements of getting a Java program to compile and run
- Be able to write code which performs small tasks
- Be able to build simpler operations into larger, integrated solutions
- Know how to debug programs (find and fix errors)
- Have experience organizing large sets of data
- Know how to design programs so that they are easy to maintain and update

**TRANSFERABILITY:** University of Alberta, University of Lethbridge, Athabasca University, Augustana Faculty ( University of Alberta), Concordia University College, Grant MacEwan University, King's University College

**GRADING CRITERIA:**

<b>GRANDE PRAIRIE REGIONAL COLLEGE</b>			
<b>GRADING CONVERSION CHART</b>			
<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Percentage Guidelines</b>	<b>Designation</b>
<b>A<sup>+</sup></b>	<b>4.0</b>	<b>90 – 100</b>	<b>EXCELLENT</b>
<b>A</b>	<b>4.0</b>	<b>85 – 89</b>	
<b>A<sup>-</sup></b>	<b>3.7</b>	<b>80 – 84</b>	<b>FIRST CLASS STANDING</b>
<b>B<sup>+</sup></b>	<b>3.3</b>	<b>77 – 79</b>	
<b>B</b>	<b>3.0</b>	<b>73 – 76</b>	<b>GOOD</b>
<b>B<sup>-</sup></b>	<b>2.7</b>	<b>70 – 72</b>	
<b>C<sup>+</sup></b>	<b>2.3</b>	<b>67 – 69</b>	<b>SATISFACTORY</b>
<b>C</b>	<b>2.0</b>	<b>63 – 66</b>	

<b>C<sup>-</sup></b>	<b>1.7</b>	<b>60 – 62</b>	
<b>D<sup>+</sup></b>	<b>1.3</b>	<b>55 – 59</b>	<b>MINIMAL PASS</b>
<b>D</b>	<b>1.0</b>	<b>50 – 54</b>	
<b>F</b>	<b>0.0</b>	<b>0 – 49</b>	<b>FAIL</b>
<b>WF</b>	<b>0.0</b>	<b>0</b>	<b>FAIL, withdrawal after the deadline</b>

\*\* Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

### **EVALUATIONS:**

Lab Assignments	24%
Lab Exam	6%
Class Quizzes	10%
Midterm	25%
Final Exam	35%

### **STUDENT RESPONSIBILITIES:**

- The Student must pass the theory/concepts portion of the course in order to obtain a passing grade for the term. In other words a student must obtain 50% out of a possible 76 points - which includes all components except the lab assignments.
- No late project assignments will be accepted. The student is responsible for adhering to all requirements as specified for each project assignment.
- When necessary lab time may be utilized for lecturing on specific Java features. The remainder of the lab time will generally be used as "hands-on" programming time.

### **STATEMENT ON PLAGIARISM AND CHEATING:**

Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at [www.gprc.ab.ca/about/administration/policies/\\*\\*](http://www.gprc.ab.ca/about/administration/policies/**)

\*\*Note: all Academic and Administrative policies are available on the same page.

**COURSE SCHEDULE/TENTATIVE TIMELINE:**

- Chapter 1 Introduction to Java
- Chapter 2 Elementary Programming
- Chapter 3 Selection Statements
- Chapter 4 Loops
- Chapter 5 Methods
- Chapter 6 Single-Dimensional Arrays
- Chapter 7 Multiple Dimensional Arrays
- Chapter 8 Objects and Classes
- Chapter 9 Strings
- Chapter 10 Thinking in Objects

Selected topics from other chapters.