DEPARTMENT OF SCIENCE

COURSE OUTLINE – CS 1150
ELEMENTARY DATA STRUCTURES

INSTRUCTOR: David Gregg   **PHONE:** 780 539 2976
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OFFICE HOURS: TBA and by prior arranged appointment

PREREQUISITE(S)/CO-REQUISITE: CS 1140 prerequisite. Note: CS 1000 is not a suitable prerequisite.

REQUIRED TEXT/RESOURCE MATERIALS: Introduction to Java Programming by D. Liang. Please make good use of the on-line and library resources related to data structures also.

DESCRIPTION: The course provides a review of programming principles (specification, implementation and testing), and an extension of object-oriented concepts from CS1140 including data abstraction, modular program construction and program reuse. The emphasis is on dynamic data structures (e.g. lists, string, stacks, queues, tables), and their associated algorithms (e.g. recursion, traversal, sorting, searching, hashing).

COURSE LAYOUT: This course is three lecture hours and three lab hours per week. When necessary, lab time will be utilized for lecturing on specific Java/algorithmic concepts and features. The remainder of lab time will generally be used as "hands-on" programming time. Student grades and course information (notes, assignments etc) will be posted on the GPRC moodle system (moodle.gprc.ab.ca). It is the student's responsibility to check their "gprcstudents.net" email account for announcements related to the course.

CREDIT/CONTACT HOURS: 3(3-0-3)

TRANSFERABILITY: UA, UC*, UL, AU, AF, CU, CUC, KUC. See the GPRC College Calendar and the Alberta Transfer Guide

GRADING CRITERIA:

The total percentage obtained in the course will be converted to a letter grade according to the GPRC grading conversion chart as published in the GPRC College Calendar.

EVALUATION:

Assignments	30%
Quizzes	10%
Midterm Exam	25%
Final Exam	35%

STUDENT RESPONSIBILITIES: Assignments/Projects are to be handed in and/or demonstrated in the scheduled lab on the due-date. Late assignments/projects will be penalized by 50%. Late assignments/projects may not be accepted after the end of classes. Some assignments may be weighted differently than others. Students will be eligible for a passing grade, **only if** they obtain 35 out of a possible 70 marks (on exams and quizzes). Students who are absent for more than 20% of lectures may be barred from writing the final examination and will receive a grade of F.

STATEMENT ON PLAGIARISM AND CHEATING:

Please refer to pages 49-50 of the College calendar regarding plagiarism, cheating and the resultant penalties. These are serious issues and will be dealt with severely.