



**DEPARTMENT OF SCIENCE**  
**COURSE OUTLINE – CS 3010 3(3-0-2)**  
**USER INTERFACES**

**INSTRUCTOR:** David Gregg

**OFFICE:** C 427

**OFFICE HOURS:** TBA and by prior arranged appointment

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**PREREQUISITE(S)/CO-REQUISITE:** CS 2010 is the prerequisite for this course.

**REQUIRED TEXT/RESOURCE MATERIALS:**

Introduction to Java Programming by D. Liang. Please make good use of the on-line and library resources related to Human Computer Interfaces also. See the CS3010 moodle page for additional materials.

**CALENDAR DESCRIPTION:**

This course is an introduction to the theory, design, and programming of modern user interfaces (GUI) for computers, game consoles and mobile devices; input and output devices (including game controllers).

**CREDIT/CONTACT HOURS:** 3(3-0-2) This course is 3 credits. The course consists of 3 lecture hours and 2 lab hours per week.

**DELIVERY MODE(S):** class-room.

When necessary, lab time will be utilized for lecturing on specific Java and HCI concepts. The remainder of lab time will generally be used as "hands-on" programming time. Student grades and course information (notes, assignments, announcements etc) will be posted on the GPRC moodle system ([moodle.gprc.ab.ca](http://moodle.gprc.ab.ca)).

**TRANSFERABILITY:**

UA\*, UC, UL, AU. See the GPRC College Calendar and the Alberta Transfer Guide for detailed regarding the transferability of this course.

**GRADING CRITERIA:**

The following Grading Conversion chart will be used to convert final marks to letter grades.

**GRANDE PRAIRIE REGIONAL COLLEGE  
GRADING CONVERSION CHART**

Alpha Grade	4-point Equivalent	Percentage Guidelines	Designation
A <sup>+</sup>	4.0	90 – 100	EXCELLENT
A	4.0	85 – 89	
A <sup>-</sup>	3.7	80 – 84	FIRST CLASS STANDING
B <sup>+</sup>	3.3	77 – 79	
B	3.0	73 – 76	GOOD
B <sup>-</sup>	2.7	70 – 72	
C <sup>+</sup>	2.3	67 – 69	SATISFACTORY
C	2.0	63 – 66	
C <sup>-</sup>	1.7	60 – 62	
D <sup>+</sup>	1.3	55 – 59	MINIMAL PASS
D	1.0	50 – 54	
F	0.0	0 – 49	FAIL
WF	0.0	0	FAIL, withdrawal after the deadline

**EVALUATIONS:**

Assignments	30%
Projects	30%
Midterm Exam	20%
Final Exam	20%

**STUDENT RESPONSIBILITIES:**

Assignments are to be handed in and/or demonstrated in the scheduled lab on the due-date. Late assignments will be penalized by 50%. Late assignments 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 20 out of a possible 40 marks (on exams).

**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:**

Sequence	Topic
1	Introduction
2	Interaction
3	Review of Object Oriented Programming Concepts
4	Creating User interfaces
5	Java Swing
6	Java Beans
7	Java 2D
8	Midterm
9	Images, Gradients and Backgrounds
10	Layout Managers and Borders
11	OSX and iOS development
12	Printing
13	Drag and Drop and the Clipboard
14	J2ME
15	Final Exam