



## I. COURSE DESCRIPTION:

This course provides the CICE student, with assistance from a learning specialist, with an introduction to mobile application development using Appinventor 2. Appinventor is a visual design tool that uses blocks to specify application behavior and provides a new way to program applications. The CICE student will acquire a basic skill level in the application of design concepts and use the Appinventor visual design environment to write applications for Android mobile devices.

## II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the CICE student, with the help of a Learning Specialist, will demonstrate the basic ability to

### 1. Preparing the development environment

Potential Elements of the Performance:

- Prepare and install software
- Create projects in AppInventor
- Become familiar with the design area, the palette, viewer, components and properties panels
- Develop application functionality with the blocks editor

### 2. Develop Introductory Level Applications

Potential Elements of the Performance:

- Define terms and concepts
- Develop graphical user interfaces using buttons, text labels, notifiers, alerts and other components.
- Develop applications that incorporate multimedia: sound, static images, video

### 3. Advanced Programming Concepts

Potential Elements of the Performance:

- Incorporate the following concepts and constructs in AppInventor in the development of more advanced application functionality
  - o Data types, data structures, control structures
  - o Colors
  - o Processing numbers
  - o Checking program states with logic blocks
  - o Manipulate text
  - o Lists
  - o Control

### 4. Storage and Databases

Potential Elements of the Performance:

- Save data locally

- Save data remotely
- 5. Develop Attractive Applications  
Potential Elements of the Performance:
- Use graphics and animations
- Control processes with a clock
- Measure orientation with orientation sensor
- Determine position with location sensor
- Measure g-force with accelerometer
- Communicate using telephone and sms

### III. TOPICS:

1. Preparing the development environment
2. Develop Introductory Level Applications
3. Advanced Programming Concepts
4. Storage and Databases
5. Develop Attractive Applications

### IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Author: Wolber  
 Title: App Inventor 2  
 Online: <http://www.appinventor.org/book2>

(Author make the book available for free on line)

App Inventor 2 Course in A Box  
<http://www.appinventor.org/content/CourseInABox/Intro>

### V. EVALUATION PROCESS/GRADING SYSTEM:

Theory Tests and Quizzes 60%  
 Laboratory Work and Tests 40%  
 Total 100%

NOTE:It is required to pass both the theory and the assignment part of this course. It is not possible to pass the course if a student has a failing average in the tests and quizzes but is passing the assignment portion, (or vice versa).

The following semester grades will be assigned to students:

Grade	Definition	Grade Point Equivalent
A+	90 – 100%	4.00

A	80 – 89%		
B	70 - 79%	3.00	
C	60 - 69%	2.00	
D	50 – 59%	1.00	
F (Fail)	49% and below		0.00

CR (Credit) Credit for diploma requirements has been awarded.

S Satisfactory achievement in field /clinical placement or non-graded subject area.

U Unsatisfactory achievement in field/clinical placement or non-graded subject area.

X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.

NR Grade not reported to Registrar's office.

W Student has withdrawn from the course without academic penalty.

If a faculty member determines that a student is at risk of not being successful in their academic pursuits and has exhausted all strategies available to faculty, student contact information may be confidentially provided to Student Services in an effort to offer even more assistance with options for success. Any student wishing to restrict the sharing of such information should make their wishes known to the coordinator or faculty member.

## VI. SPECIAL NOTES:

All tests and assignments will be completed with the assistance of the Learning Specialist. Any modifications to the tests and assignments will be proposed by the Learning Specialist and are subject to approval from the professor

### Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

Absences due to medical or other unavoidable circumstances should be discussed with the instructor. Students are required to be in class on time and attendance will be taken within the first five minutes of class. A missed class will result in a penalty in your

marks unless you have discussed your absence with the professor as described above. The penalty depends on course hours and will be applied as follows:

Course Hours Deduction

5 hrs/week (75 hrs)	1% / hr
4 hrs/week (60 hrs)	1.5% /hr
3 hrs/week (45 hrs)	2% /hr
2 hrs/week (30 hrs)	3%/hr

Absentee reports will be discussed with each student during regular meetings with Faculty Advisors. Final penalties will be reviewed by the professor and will be at the discretion of the professor.

VII. COURSE OUTLINE ADDENDUM:

The provisions contained in the addendum located in D2L and on the portal form part of this course outline.

**CICE Modifications:****Preparation and Participation**

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

**A. Tests may be modified in the following ways:**

1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

**B. Tests will be written in CICE office with assistance from a Learning Specialist.*****The Learning Specialist may:***

1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

**C. Assignments may be modified in the following ways:**

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

***The Learning Specialist may:***

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

**D. Evaluation:**

Is reflective of modified learning outcomes.