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*Applied Project*

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**Ict-Applications & Programming**

<b>Course Number:</b> MAD9145	<b>Co-Requisites:</b> N/A	<b>Pre-Requisites:</b> MAD9034 and MAD9132 and MAD9135
<b>Applicable Program(s):</b> 1515X01FWO - Mobile App. Des. & Dev	<b>AAL:</b> 4	<b>Core/Elective:</b> Core
<b>Prepared by:</b>	Professor Steve Griffith, Program Coordinator	
<b>Approved by:</b>	Sandra Brancatelli, Chair, ICT - Applications & Programming	
<b>Approval Date:</b>	Monday, January 7, 2019	
<b>Approved for Academic Year:</b>	2018-2019	
<b>Normative Hours:</b>	90.00	

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**Course Description**

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Working in teams, students experience the analysis, design, implementation, testing and deployment of a mobile solution for a real-world client. Important topics from throughout their program of study are applied in this course. Faculty advisors facilitate student teams to demonstrate their skills in the applied project. Student teams make a technical presentation to their faculty advisors and participate in a public showcase of projects.

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**Relationship to Vocational Learning Outcomes**

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This course contributes to your program by helping you achieve the following Vocational Learning Outcomes:

**1515X01FWO - Mobile App. Des. & Dev**

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| VLO 1 | Identify requirements and implement mobile solutions. (CP,)   |
| VLO 3 | Create effective user interfaces that leverage evolving mobile device capabilities. (CP,)               |
| VLO 4 | Design and develop websites that deploy to different devices and platforms. (CP,)                       |
| VLO 5 | Design and develop cross-platform applications built with rich-media and HTML-based technologies. (CP,) |
| VLO 6 | Design and develop device-specific, native applications. (CP,)  |
| VLO 7 | Research and apply various software development kits (SDKs), frameworks and toolkits. (CP,)             |
| VLO 8 | Integrate database and server-side technologies to provide complete mobile development solutions. (CP,) |

VLO 9	Build, test, and deploy secure mobile solutions using appropriate network technologies. (CP,)
VLO 10	Collaborate in a team-based, mobile development project. (CP,)
VLO 11	Identify and apply discipline-specific practices that contribute to the local and global community through social responsibility, economic commitment and environmental stewardship. (CP,)

## Relationship to Essential Employability Skills

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This course contributes to your program by helping you achieve the following Essential Employability Skills:

EES 1	Communicate clearly, concisely and correctly in the written, spoken and visual form that fulfills the purpose and meets the needs of the audience. (CP,)
EES 2	Respond to written, spoken or visual messages in a manner that ensures effective communication. (CP,)
EES 3	Execute mathematical operations accurately. (CP,)
EES 4	Apply a systematic approach to solve problems. (CP,)
EES 5	Use a variety of thinking skills to anticipate and solve problems. (CP,)
EES 6	Locate, select, organize and document information using appropriate technology and information systems. (CP,)
EES 7	Analyze, evaluate and apply relevant information from a variety of sources. (CP,)
EES 8	Show respect for diverse opinions, values, belief systems and contributions of others. (CP,)
EES 9	Interact with others in groups or teams in ways that contribute to effective working relationships and the achievement of goals. (CP,)
EES 10	Manage the use of time and other resources to complete projects. (CP,)
EES 11	Take responsibility for one's own actions, decisions and consequences. (CP,)

## Course Learning Requirements/Embedded Knowledge and Skills

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When you have earned credit for this course, you will have demonstrated the ability to:

### **1.) Work effectively, individually and within a team, to solve problems and deliver a reasonable mobile application to a client.**

Evaluate self and team members while taking personal responsibility for fair and timely contribution to a team project.

Work respectfully and efficiently with other team members to carry out tasks involved in the analysis, design, development, testing and deployment of a mobile application on time; capitalizing on the variety of team talents to support problem solving.

Communicate, in a timely fashion, with team members, client and course professors.

Use techniques to communicate and support efficient project progression

**2.) Analyze, design, build, test, and deploy a mobile application using an agile software development methodology.**

Analyze, design, and build a mobile application using regular communications with the client.

Using a variety of thinking skills, apply a systematic approach to solve problems presented during the project.

Design, build, test and deploy a mobile application based on evaluated client requirements.

Create databases to support requirements and integrate within an existing system (if necessary).

Identify and implement measures to support sustainability.

**3.) Communicate effectively with a client to determine requirements and to provide a mobile solution.**

Draft effective agenda and minutes for client meetings.

Interview the client to effectively gather relevant information to determine requirements of the the system to be delivered, according to the client's standards and goals.

Request client approval of the system requirements document and final project sign-off.

Identify and respond to opportunities to integrate with international or inter-cultural aspects to communications with the client.

**4.) Demonstrate interim releases and the final product to the client, course professors, and others.**

Prepare demonstration material, narratives and other material to properly exhibit the mobile solution to the client and other interested professionals.

Install and configure the interim releases and final mobile solution to the client and course professors.

Respond to situations where attention to international or inter-cultural sensitivity is required.

## **Learning Resources**

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**Required:**

**Textbook:** none

**Software:** Varies with project.

**Hardware:**

This course is part of the mobile (laptop) program initiative at Algonquin College. Students are required to have a functioning MacBook Pro at all lecture and lab classes. The specifications for the required laptop and additional information about the mobile program initiative can be found at <http://www.algonquincollege.com/byod/>.

## Learning Activities

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Attend and participate in lectures.

Attend and participate in team meetings with the course professors to review project status.

Attend and participate in meetings with the project client.

Interview and present work-in-progress to project clients, project professors and others.

Write emails and and prepare minutes for client meetings.

Write documents as required for the project.

Build intern releases and final project solution.

Present the final project solution to the client, project professors and others.

### Hybrid Activities:

The hybrid portion of this course will involve team and individual design and development work, team and client meetings, with additional opportunities to meet with the project professors.

## Evaluation/Earning Credit

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The following list provides evidence of this course's learning achievements and the outcomes they validate:

Report(s) (30%)

Validates Outcomes: CLR 3, EES 1, EES 2, EES 4, EES 6, EES 7, EES 8, EES 9, EES 10, EES 11

Group Presentation(s) (20%)

Validates Outcomes: CLR 3, EES 1

Group Performance(s) (20%)

Validates Outcomes: EES 9, EES 11

Team Project (30%)

Validates Outcomes: CLR 1, CLR 2, CLR 3, CLR 4, EES 2, EES 3, EES 4, EES 5, EES 10, EES 11

Students are expected to meet evaluation and completion deadlines as stated in course outline and course section information documents. In circumstances where evaluation and/or completion deadlines are missed or student performance has been affected by a temporary or permanent disability (including mental health), interim or retroactive accommodations may be considered. In such instances, please consult your course faculty member. For other situations where deferral of evaluations may be warranted, please refer to college policy AA21.

## Prior Learning Assessment and Recognition

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Students who wish to apply for prior learning assessment and recognition (PLAR) need to demonstrate competency at a post-secondary level in all of the course learning requirements outlined above. Evidence of learning achievement for PLAR candidates includes:

- Other: Not Applicable

## Grade Scheme

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Final Grade	Mark Equivalent	Numeric Value	Final Grade	Mark Equivalent	Numeric Value
A+	90% - 100%	4.0	A	85% - 89%	3.8
A-	80% - 84%	3.6	B+	77% - 79%	3.3
B	73% - 76%	3.0	B-	70% - 72%	2.7
C+	67% - 69%	2.3	C	63% - 66%	2.0
C-	60% - 62%	1.7	D+	57% - 59%	1.4
D	53% - 56%	1.2	D-	50% - 52%	1.0
F	0% - 49%	0	FSP	0	0

## Other Information

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Students are required to respect the confidentiality of employer, client and/or patient information, interactions, and practices that occur either on Algonquin College premises, or at an affiliated clinical/field/co-op placement site. Concerns regarding clients, patients, and/or employer practices are to be brought to the attention of the program coordinator, or designated field/clinical/co-op placement supervisor so that they may be resolved collaboratively. Such concerns are not to be raised publically either verbally, in writing, or in electronic forums. These matters are to be addressed through established program communication pathways.

## Course Related Information

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The projects are carried out on a team basis.

In order to pass the course, the project team members must:

- complete requested documentation to the prescribed standards

- deliver a functional mobile solution to the client and course professors; meeting the client's satisfaction and the professors' approval.

The team must meet frequently and regularly with the course professors to review work and with the client to verify that the project is meeting the client's needs.

The course professors have the ability to reduce a student's mark by 100% if the student is not participating - as shown through status meetings, project demonstrations, technical reviews and peer evaluations. Exceptional contribution and/or leadership could be rewarded with an increase of up to 10% (supported by peer evaluation).

### **Program Related Information**

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#### **1515X01FWO - Mobile App. Des. & Dev**

The late policy for assignments is a 10% per day deduction to a maximum of 30%.

If an assignment is still not submitted 10 days after the due date then a grade of zero will be given for the assignment. Students can still submit work for review and feedback after the 10 days but no grade will be given.

Any extensions to due dates must be arranged with the course instructor before the due date.

### **Department Related Information**

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#### **STUDENT ACADEMIC RESPONSIBILITIES**

Each student is responsible for:

- Knowing the due dates for marked out-of-class assignments.
- Attending all classes and knowing the dates of in-class marked assignments and exercises.
- Maintaining a folder of all work done in the course during the semester for validation claims in cases of disagreement with faculty.
- Keeping both paper and electronic copies of all assignments, marked and unmarked, in case papers are lost or go missing.
- Regularly checking both Blackboard announcements as well as one's Algonquin e-mail account for important messages from both professors and college administration.
- Participating in on-line and classroom exercises and activities as required.
- Retaining course outlines for possible future use to support applications for transfer of credit to other educational institutions.

**Harassment/Discrimination/Violence will not be tolerated.** Any form of harassment (sexual, racial, gender or disability-related), discrimination (direct or indirect), or violence, whether involving a professor and a student or amongst students, will not be tolerated on the college premises. Action taken will start with a formal warning and proceed to the full disciplinary actions as outlined in Algonquin College Policies - HR22 and SA07.

Harassment means one or a series of vexatious comment(s) (whether done verbally or through electronic means), or conduct related to one or more of the prohibited grounds that is known or ought reasonably to be known to be unwelcome/unwanted, offensive, intimidating, derogatory or hostile. This may include, but is not limited to: gestures, remarks, jokes, taunting, innuendo, display of offensive materials, offensive graffiti, threats, verbal or physical assault, stalking, slurs, shunning or exclusion related to the prohibited grounds.

For further information, a copy of the official policy statement can be obtained from the Student Association.

### **Violation of the Copyright Act**

**General – The Copyright Act** makes it an offence to reproduce or distribute, in whatever format, any part of a publication without the prior written permission of the publisher. For complete details, see the Government of Canada website at <http://laws.justice.gc.ca/en/C-42> . Make sure you give it due consideration, before deciding not to purchase a textbook or material required for your course.

**Software Piracy - The Copyright Act** has been updated to include software products. Be sure to carefully read the licensing agreement of any product you purchase or download, and understand the terms and conditions covering its use, installation and distribution (where applicable). Any infringement of licensing agreement makes you liable under the law.

**Disruptive Behaviour** is any conduct, or threatened conduct, that is disruptive to the learning process or that interferes with the well being of other members of the College community. It will not be tolerated. Members of the College community, both students and staff, have the right to learn and work in a secure and productive environment. The College will make every effort to protect that right. Incidents of disruptive behaviour must be reported in writing to the departmental Chair as quickly as possible. The Chair will hold a hearing to review available information and determine any sanctions that will be imposed. Disciplinary hearings can result in penalties ranging from a written warning to expulsion.

For further details, consult the Algonquin College Policies AA32, SA07 and IT01 in your Instaguide.

## **College Related Information**

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### **Email**

Algonquin College provides all full-time students with an e-mail account. This is the address that will be used when the College, your professors, or your fellow students communicate important information about your program or course events. It is your responsibility to ensure that you know how to send and receive e-mail using your Algonquin account and to check it regularly.

## **Students with Disabilities**

If you are a student with a disability, you are strongly encouraged to make an appointment at the Centre for Accessible Learning to identify your needs. Ideally, this should be done within the first month of your program, so that a Letter of Accommodation (LOA) can be provided to your professors. If you are a returning student, please ensure that professors are given a copy of your LOA each semester.

## **Retroactive Accommodations**

Students are expected to meet evaluation and completion deadlines as stated in course outline and course section information documents. In circumstances where evaluation and/or completion deadlines are missed or student performance has been affected by a temporary or permanent disability (including mental health), interim or retroactive accommodations may be considered. In such instances, please consult your course faculty member. For other situations where deferral of evaluations may be warranted, please refer to college policy AA21.

## **Academic Integrity & Plagiarism**

Adherence to acceptable standards of academic honesty is an important aspect of the learning process at Algonquin College. Academic work submitted by a student is evaluated on the assumption that the work presented by the student is his or her own, unless designated otherwise. For further details consult Algonquin College Policies AA18: Academic Dishonesty and Discipline and AA20: Plagiarism

## **Student Course Feedback**

It is Algonquin College's policy to give students the opportunity to share their course experience by completing a student course feedback survey for each course they take. For further details consult Algonquin College Policy AA25: Student Course Feedback

## **Use of Electronic Devices in Class**

With the proliferation of small, personal electronic devices used for communications and data storage, Algonquin College believes there is a need to address their use during classes and examinations. During classes, the use of such devices is disruptive and disrespectful to others. During examinations, the use of such devices may facilitate cheating. For further details consult Algonquin College Policy AA32: Use of Electronic Devices in Class

## **Transfer of Credit**

It is the student's responsibility to retain course outlines for possible future use to support applications for transfer of credit to other educational institutions.

**Note:** *It is the student's responsibility to refer to the Algonquin College Policies website for the most current information at <http://www.algonquincollege.com/policies/>*

## **Legend**

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## **Terms**

- ALO: Aboriginal Learning Outcome
- Apprenticeship LO: Apprenticeship Learning Outcome
- CLR: Course Learning Requirement
- DPLO: Degree Program Learning Outcome
- EES: Essential Employability Skill
- EOP: Element of Performance
- GELO: General Education Learning Outcome
- LO: Learning Outcome
- PC: Program Competency
- PLA: Prior Learning Assessment
- PLAR: Prior Learning Assessment and Recognition
- VLO: Vocational Learning Outcome

## **Assessment Levels**

- T: Taught
- A: Assessed
- CP: Culminating Performance