Applications Development for Online Environments
BUSI 3401 – Winter 2016

Class Times

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
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<tbody>
<tr>
<td>A</td>
<td>Thursdays</td>
<td>11:35 – 14:25</td>
</tr>
</tbody>
</table>

INSTUCTOR

Dr. Alejandro Ramirez
Office: DT1722
Phone: 613 520 2600 ext. 2397
Office Hours: Tuesday 13:30 – 15:30 or by appointment
Email: Alex.Ramirez@Carleton.ca

PREREQUISITES
BUSI 2402 and BUSI 3400, or COMP 1005 and COMP 3005 (with a grade of C- or higher in each)
Precludes additional credit for BUSI 4401 (no longer offered)

COURSE DESCRIPTION
BUSI 3401 [0.5 credit]
Applications Development for Online Environments
Analysis, design and implementation of electronic business systems. Topics include advanced object-oriented programming, advanced SQL programming, XML, using ASP.NET, MTS and SQL Server.

COURSE OVERVIEW
This term we will be exploring the world of App Development using Android’s Studio & Apple’s iOS 8.
The App Economy emerged along with Apple’s innovative products, their iPhone, iPod Touch and iPad.
There are other platforms that now also contribute to the App Economy: Google’s Android App Store, BlackBerry’s App store and Microsoft’s Windows App Store. Any of these can be explored as part of your Project (if you want), but in this course will use Google’s Android Studio and Apple’s Xcode 7 to work.

There are aspects in the course dealing with analysis, design and implementation of electronic business systems, but these are concentrated in portable, mobile devices. Object oriented programming is still the paradigm used, but we will be using Java for mobile devices and Swift as languages of choice and development platform. Issues of accessing databases are covered using the device’s innate form of addressing these issues.

We focus on one specific type of applications: the App. This is a business course, our main goal is to understand how these new devices and applications are transforming the world of business. Emphasis on the course include: business impact, such as BYOD strategies, security and strategic use of IS.
TEXTBOOKS

For Android Development
Android Programming: The Big Nerd Ranch Guide
2nd Edition
Bill Phillips, Chris Stewart, Brian Hardy
Person Education
ISBN: 978-0134171456

For iOS Development
Learn iOS 8 App Development
2nd Edition
James Bucanek
Apress
ISBN: 978-1-484202-09-8

EVALUATION

Students will be evaluated in this course according to the following set of aspects:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight %</th>
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<tbody>
<tr>
<td>2 Assignments</td>
<td>30%</td>
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<tr>
<td>First</td>
<td>10%</td>
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<tr>
<td>Second</td>
<td>20%</td>
</tr>
<tr>
<td>Individual Project</td>
<td>30%</td>
</tr>
<tr>
<td>Group-led Session</td>
<td>10%</td>
</tr>
<tr>
<td>Take home Final Exam</td>
<td>30%</td>
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Assignments
Two Individual Assignments are due on CU-Learn at the date and time indicated on the course’s website. Marks and marked assignments will be available through our Learning Management System as well.

Late Assignments
There will be a 24 hours window to submit late assignments. If an assignment is marked late it will be penalized 25%. No assignments will be accepted after that. Missed assignments will be tabulated as 0.

Individual Project
This project accounts for 30% of the final grade. Here you will have the opportunity to explore a business issue that may be addressed using an App. This project can be theoretical or applied. If you are interested you can explore here the App development process of other platforms (Windows, or BlackBerry). The project must be approved by the course instructor no later than the end of the 4th lecture. For the reminder of the term, you will be working on your project. A formal submission of the project will be on the eve of the final lecture. As part of the project’s assessment, there is a class presentation of your project during the last lecture of the term.
Group-Led Session
In our second lecture, we will form groups. These groups will help the instructor to manage one lecture between week 4 and week 11. As a group, you need to decide how you want to run the session to explore the theme(s) assigned for that lecture.

Final Exam
The final exam will be a take home exam that will build upon the two assignments. It is extremely important that you work on those assignments to be able to work on the final exam. **YOU WILL NEED TO HAVE A 50+ AVERAGE IN THE TWO ASSIGNMENTS TO BE ABLE TO WRITE THE FINAL EXAM.**

DETAILED COURSE SCHEDULE*

<table>
<thead>
<tr>
<th>Lecture/Date</th>
<th>Topic</th>
<th>Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture 1</td>
<td>Welcome to the course – course administration</td>
<td></td>
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<tr>
<td>January 7</td>
<td>– The App Economy</td>
<td></td>
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<tr>
<td>Lecture 2</td>
<td>Introduction to Android Studio</td>
<td></td>
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<tr>
<td>January 14</td>
<td></td>
<td></td>
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<tr>
<td>Lecture 3</td>
<td>Android Apps I</td>
<td></td>
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<tr>
<td>January 21</td>
<td></td>
<td></td>
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<tr>
<td>Lecture 4</td>
<td>Android Apps II</td>
<td>Individual Project</td>
</tr>
<tr>
<td>January 28</td>
<td></td>
<td>approval deadline</td>
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<tr>
<td>Lecture 5</td>
<td>Android Apps III</td>
<td></td>
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<tr>
<td>February 4</td>
<td></td>
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<tr>
<td>Lecture 6</td>
<td>Android Apps IV</td>
<td></td>
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<tr>
<td>February 11</td>
<td></td>
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<tr>
<td>Lecture 7</td>
<td>Android Apps V</td>
<td>Assignment 1</td>
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<tr>
<td>February 18</td>
<td>Reading Week</td>
<td></td>
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<tr>
<td>Lecture 8</td>
<td>Introduction to iOS Apps, Objective-C and Swift</td>
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<tr>
<td>March 3</td>
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<tr>
<td>Lecture 9</td>
<td>iOS Apps I</td>
<td></td>
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<tr>
<td>March 10</td>
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<tr>
<td>Lecture 10</td>
<td>iOS Apps II</td>
<td></td>
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<tr>
<td>March 17</td>
<td></td>
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<tr>
<td>Lecture 11</td>
<td>iOS Apps III</td>
<td>Assignment 2</td>
</tr>
<tr>
<td>March 24</td>
<td></td>
<td></td>
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<tr>
<td>Lecture 12</td>
<td>iOS Apps IV</td>
<td></td>
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<tr>
<td>March 31</td>
<td></td>
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<tr>
<td>Presentations</td>
<td>Course wrap up – the tip of the iceberg. Left</td>
<td>Individual Project</td>
</tr>
<tr>
<td>April 7</td>
<td>to investigate: Other environments – Windows</td>
<td>presentations</td>
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<tr>
<td></td>
<td>Phone, BlackBerry, etc.</td>
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* Note: While every attempt will be made to keep to the schedule listed above, unforeseen circumstances may necessitate modifications throughout the semester.

ADDITIONAL INFORMATION

Course Sharing Websites
Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).
**Required calculator in BUSI course examinations**
If you are purchasing a calculator, we recommend any one of the following options: Texas Instruments BA II Plus (including Pro Model), Hewlett Packard HP 12C (including Platinum model), Staples Financial Calculator, Sharp EL-738C & Hewlett Packard HP 10bII

**Group work**
The Sprott School of Business encourages group assignments in the school for several reasons. They provide you with opportunities to develop and enhance interpersonal, communication, leadership, follower-ship and other group skills. Group assignments are also good for learning integrative skills for putting together a complex task. Your professor may assign one or more group tasks/assignments/projects in this course. Before embarking on a specific problem as a group, it is your responsibility to ensure that the problem is meant to be a group assignment and not an individual one.

In accordance with the Carleton University Undergraduate Calendar (p 34), the letter grades assigned in this course will have the following percentage equivalents:

- A+ = 90-100
- A  = 85-89
- A - = 80-84
- B+ = 77-79
- B  = 73-76
- B - = 70-72
- C+ = 67-69
- C  = 63-66
- C - = 60-62
- D+ = 57-59
- D  = 53-56
- D - = 50-52
- F  = Below 50
- WDN = Withdrawn from the course
- ABS = Student absent from final exam
- DEF = Deferred (See above)
- FND = (Failed, no Deferred) = Student could not pass the course even with 100% on final exam

**Academic Regulations, Accommodations, Etc.**
University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university’s website, here: [http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/](http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/)

**Requests for Academic Accommodations**

*For Students with Disabilities:*  
The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your **Letter of Accommodation** at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation *(if applicable).* After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. The deadlines for contacting the Paul Menton Centre regarding accommodation for final exams for the December 2015 exam period is November 6, 2015 and for the April 2016 exam period is March 6, 2016.

*For Religious Obligations:*  
Students requesting academic accommodation on the basis of religious obligation should make a formal, written request to their instructors for alternate dates and/or means of satisfying academic
requirements. Such requests should be made during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist, but no later than two weeks before the compulsory event.

Accommodation is to be worked out directly and on an individual basis between the student and the instructor(s) involved. Instructors will make accommodations in a way that avoids academic disadvantage to the student.

Students or instructors who have questions or want to confirm accommodation eligibility of a religious event or practice may refer to the Equity Services website for a list of holy days and Carleton's Academic Accommodation policies, or may contact an Equity Services Advisor in the Equity Services Department for assistance.

For Pregnancy:
Pregnant students requiring academic accommodations are encouraged to contact an Equity Advisor in Equity Services to complete a letter of accommodation. The student must then make an appointment to discuss her needs with the instructor at least two weeks prior to the first academic event in which it is anticipated the accommodation will be required.

Academic Integrity
Violations of academic integrity are a serious academic offence. Violations of academic integrity – presenting another’s ideas, arguments, words or images as your own, using unauthorized material, misrepresentation, fabricating or misrepresenting research data, unauthorized co-operation or collaboration or completing work for another student – weaken the quality of the degree and will not be tolerated. Penalties may include; a grade of Failure in the submitted work and/or course; academic probation; a refusal of permission to continue or to register in a specific degree program; suspension from full-time studies; suspension from all studies at Carleton; expulsion from Carleton, amongst others. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy which is available, along with resources for compliance at: http://www2.carleton.ca/sasc/advisingcentre/academic-integrity/.

Sprott Student Services
The Sprott student services office, located in 710 Dunton Tower, offers academic advising, study skills advising, and overall academic success support. If you’re having a difficult time with this course or others, or just need some guidance on how to successfully complete your Sprott degree, please drop in any weekday between 8:30am and 4:30pm. Our advisors are happy to discuss grades, course selection, tutoring, concentrations, and will ensure that you get connected with the resources you need to succeed! http://sprott.carleton.ca/students/undergraduate/support-services/

Be in the know with what’s happening at Sprott: Follow @SprottStudents and find us on Facebook SprottStudents Sprott.

Important Information:
- Students must always retain a hard copy of all work that is submitted.
- All final grades are subject to the Dean’s approval.
- For us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid CARLETON address. Therefore, it would be easier to respond to your inquiries if you would send all email from your Carleton account. If you do not have or have yet to activate this account, you may wish to do so by visiting http://carleton.ca/ccs/students/
Important Dates and Deadlines – Winter 2016
Graduate, Undergraduate and Special Students

Sessions:
- Fall term: September 2, 2015 – December 7, 2015
- Winter term: January 6, 2016 – April 8, 2016
- Fall/winter: September 2, 2015 – April 8, 2016

December 25 to January 3
University closed

January 4
University reopens

January 6
Winter-term classes begin.

January 19
Last day for registration for winter term courses.
Last day to change courses or sections (including auditing) for winter term courses.
Students who have not deposited (via automated upload) the final copy of their thesis to the office of the Faculty of Graduate and Postdoctoral Affairs must register.

January 31
Last day for a fee adjustment when withdrawing from Winter term courses or the Winter portion of two-term courses. Withdrawals after this date will create no financial change to Winter term fees (financial withdrawal).

February 12
April examination schedule available online.

February 12-20
Fall-term deferred examinations will be held.

February 15
Statutory holiday, University closed.

February 15-19
Winter Break. Classes are suspended.

March 1
Last day for UHIP refund applications for International Students who will be graduating this academic year.
Last day for receipt of applications from potential spring (June) graduates.
March 6
Last day to submit Formal Examination Accommodation Forms to the Paul Menton Centre for Students with Disabilities for April examinations.

March 24
Last day to pay any remaining balance on your Student Account to avoid a hold on access to marks through Carleton Central and the release of transcripts and other official documents. An account balance may delay Summer 2016 course selection.

Last day for tests or examinations in courses below the 4000-level before the final examination period (see Examination Regulations in the Academic Regulations of the University section of this Calendar).

March 25
Statutory holiday, University closed.

April 1, 2016
Last day for receipt of applications for admission to an undergraduate program for the fall/winter session, from candidates whose documents originate outside Canada or the United States, except for applications due February 1 or March 1.

April 8
Winter term ends.

Last day of fall/winter and winter-term classes.
Last day for academic withdrawal from fall/winter and winter term courses.
Last day for handing in term work and the last day that can be specified by a course instructor as a due date for term work for fall/winter and winter-term courses.

April 9-10
No classes or examinations take place

April 11-23
Final examinations in winter term and fall/winter courses may be held. Examinations are normally held all 7 days of the week.

April 15, 2016
Winter Co-op Work Term Reports are due.

April 23, 2016
All take home examinations are due on this day.

June 6-16
Fall/winter and winter term deferred final examinations will be held.