Applications Development for Online Environments
BUSI 3401 – Winter 2014

Class Times

<table>
<thead>
<tr>
<th>Section</th>
<th>Day</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Tuesdays</td>
<td>8:35 – 11:25</td>
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</tbody>
</table>

INSTUCTOR

Dr. Alejandro Ramirez
Office: DT1722
Phone: 613 520 2600 ext. 2397
Office Hours: Tuesday 13:00 – 15:00 hrs. or by appointment
Email: Alex.Ramirez@Carleton.ca

PREREQUISITES
BUSI 2402 and BUSI 3400, or COMP 1002 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 Apple’s iOS 7. The App Economy emerged along with Apple’s two innovative products, their iPhone and iPad. There are other platforms that now also contribute to the App Economy (BlackBerry’s App store and Google’s Android App Store). These can be explored as part of your Project (if you want), but in order to be able to assess your learning, we will use a common platform, Apple’s iOS 7.

There are still 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 Objective-C and Cocoa Touch as the language of choice and development platform. Issues of accessing databases are covered using the device’s innate form of addressing these issues.

As you can see, it is covering the main issues as described in our calendar, but focussing on one specific type of applications: the App. Still, 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**

Learn iOS App Development  
James Bucanek  
Apress  

Learning Objective – C 2.0: A Hands-on Guide to Objective-C for Mac and iOS Developers, 2nd Edition  
Robert Clair  
Addisson-Wesley  

**EVALUATION**

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

<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>
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<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. If you are interested you can explore here the App development process of other platforms (BlackBerry, Android). 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 8 groups. These groups will manage a lecture from week 4 to 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>
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<tbody>
<tr>
<td>Lecture 1 Jan 7</td>
<td>Welcome to the course – course administration – The App Economy –</td>
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<td></td>
<td>Getting Started with iOS 7 Programming</td>
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<tr>
<td>Lecture 2 Jan 14</td>
<td>Writing your first application – Crash course in Objective-C –</td>
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<td>Similarities and differences with Java – Object Lesson (Bucanek</td>
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<td></td>
<td>Chapter 6)</td>
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<td>Lecture 3 Jan 21</td>
<td>Understanding views, outlets and actions – Exploring the different</td>
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<td></td>
<td>view controllers – Getting around in XCode (Bucanek Chapters 1 &amp; 2)</td>
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<tr>
<td>Lecture 4 Jan 28</td>
<td>[Group 1] Spin a Web – Using Web Services (Bucanek Chapter 3)</td>
<td>Individual Project approval</td>
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<td></td>
<td>deadline</td>
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<tr>
<td>Lecture 5 Feb 4</td>
<td>[Group 2] Coming Web – event-driven applications (Bucanek Chapter 4)</td>
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<td>Lecture 6 Feb 11</td>
<td>[Group 3] Table Manners – Using tables in your interface (Bucanek</td>
<td>Assignment 1</td>
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<td>Chapter 5)</td>
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<td>Lecture 7 Feb 25</td>
<td>[Group 4] Smile! – pictures and video apps (Bucanek Chapter 7)</td>
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<td>Lecture 8 March 4</td>
<td>[Group 5] Model Citizen – using the MVC (Model-View-Controller)</td>
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<td>design pattern (Bucanek Chapter 8)</td>
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<td>Lecture 9 March 11</td>
<td>[Group 6] Sweet, Sweet Music – sound in iOS apps (Bucanek Chapter 9)</td>
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<td>Lecture 10 March 18</td>
<td>[Group 7] Draw me a picture – custom view objects (Bucanek Chapter 11)</td>
<td>Assignment 2</td>
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<tr>
<td>Lecture 11 March 25</td>
<td>[Group 8] There and back again – Multi screen apps (Bucanek Chapter 12)</td>
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<tr>
<td>Lecture 12 April 1</td>
<td>Course wrap up – the tip of the iceberg. Left to investigate: Social</td>
<td>Individual Project presentations</td>
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<td></td>
<td>networking (Bucanek Chapters 13 &amp; 14)</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.

Medical certificate
Please note that in all occasions that call for a medical certificate you must use or furnish the information demanded in the standard university form.

http://www1.carleton.ca/registrar/forms/

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  B+ = 77-79  C+ = 67-69  D+ = 57-59
A = 85-89   B = 73-76   C = 63-66   D = 53-56
A - = 80-84   B - = 70-72   C - = 60-62   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, Plagiarism, 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/

Requests for Academic Accommodations

Academic Accommodations for Students with Disabilities

The Paul Mento 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. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

- The deadlines for contacting the Paul Mento Centre regarding accommodation for final exams for the December 2013 exam period is November 8, 2013 and for the April 2014 exam period is March 7, 2014.

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 expulsion; suspension from all studies at Carleton; suspension from full-time studies; a refusal of permission to continue or to register in a specific degree program; academic probation; and a grade of Failure in the course, 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/.

Assistance for Students:

Student Academic Success Centre (SASC): www.carleton.ca/sasc

Writing Tutorial Services: http://www1.carleton.ca/sasc/writing-tutorial-service/

Peer Assisted Study Sessions (PASS): www.carleton.ca/sasc/peer-assisted-study-sessions

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.
- Please note that you will be able to link your CONNECT (MyCarleton) account to other non-CONNECT accounts and receive emails from us. However, 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 CONNECT address. Therefore, it would be easier to respond to your inquiries if you would send all email from your connect account. If you do not have or have yet to activate this account, you may wish to do so by visiting https://portal.carleton.ca/