



## Programs & Courses

[bcit.ca/study/outlines/20161047992](http://bcit.ca/study/outlines/20161047992)

# COMP 4711 - Introduction to Internet Software Development

<b>School:</b>	School of Computing and Academic Studies
<b>Program:</b>	Computer Systems Technology
<b>Course Credits:</b>	3
<b>Start Date:</b>	January 04, 2016
<b>End Date:</b>	April 22, 2016
<b>Total Hours:</b>	45
<b>Total Weeks:</b>	15
<b>Hours/Weeks:</b>	3
<b>Delivery Type:</b>	Lecture
<b>Prerequisites:</b>	COMP 2510 or COMP 2526
<b>CRN:</b>	47992

## Instructor Details

Name: James Parry  
 Email: [jparry1@my.bcit.ca](mailto:jparry1@my.bcit.ca)  
 Location: SW2-124  
 Office Hours:

T.B.A. - posted on office door

## Course description

This course provides the students with an opportunity to develop a software application that works across the internet. An overview of various internet software development technologies is provided. Students will learn how to build a web application using a modern webapp MVC framework and Apache server technology; and how to use XML for data representation, structure and transport.

## Course goals

This course is about webapp development, using best practices.

To support this, the tools and methodologies used are either open source or freely licensed for academic use.

## Course learning outcomes / competencies

Upon successful completion of this course, the student will be able to:

- Construct an MVC web application using a suitable framework.
- Construct a valid and well-formed XML document., and constrain it with a DTD.
- Process XML data using DOM.

## Evaluation criteria

Criteria	%	Comments
Assignments	25	3 assignments
Labs	30	9 labs
Midterm exam	20	weeks 1-7

Final exam	25	weeks 1-13
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## Attendance requirements

Students missing more than two labs will receive an Unsatisfactory grade in the course, and fail.

## Learning resources

PHP and HTML/CSS aware editor; eg NetBeans 8 (from [www.netbeans.org](http://www.netbeans.org)) or PhpStorm (from [www.jetbrains.com/phpstorm](http://www.jetbrains.com/phpstorm))

AMP (Apache + MySQL + PHP) server environment, suitable for the student's platform; eg XAMPP (from [apacheFriends.org](http://apacheFriends.org)) or xAMP stack (from [bitnami.com](http://bitnami.com))

CodeIgniter 3 webapp framework (from [codeigniter.com](http://codeigniter.com))

GIT client or plugin, for your IDE or platform

## Course specific requirements

Some labs are individual, while others will use pair programming, with both students receiving the same grade.

Assignments will be completed in project teams, with team members' grades commensurate with their contribution.

Labs and assignments will be done using [github.com](http://github.com) for code repositories. Starter materials and solutions will be provided through the instructor's repositories.

Course materials (presentations, examples, tutorials, labs and assignments) will be shared through D2L content and/or a public website.

Labs and assignments will be submitted as github repositories, with links provided in a readme submitted to the appropriate D2L dropbox, which will also be used for feedback.

## Course schedule and assignments

Week	Date	Material Covered	Labs	Assignments	Due Date
1	2016.01.05	Introduction to MVC Webapps			
2	2016.01.12	CodeIgniter MVC Framework	#1 Development setup		
3	2016.01.19	Controllers & Routing	#2 CodeIgniter Introduction		
4	2016.01.26	Models & ORM	#3 Controllers		
5	2016.02.02	Views & Templating		#1 Basic webapp	2016.02.06
6	2016.02.09	Helpers & CSS / Javascript Integration	#4 Models		
7	2016.02.16	XML Introduction & Structure	#5 Views		
8	2016.02.23	Midterm exam			
9	2016.03.01	XML Constraints & Processing	#6 Best practices		
10	2016.03.08	XML-RPC		#2 Functional webapp	2016.03.12
	2016.03.15	n/a ... spring break			
11	2016.03.22	REST & JSON	#7 XML		
12	2016.03.29	Authentication	#8 XML-RPC		
13	2016.04.05	Social Networking	#9 RESTful services		
14	2016.04.12	Loose ends & Review		#3 Connected webapp	2016.04.16
15	2016.04.19	Final Exam Week			

## BCIT policy

The following statements are in accordance with the BCIT Policies 5101, 5102, 5104, and 7507, and their accompanying procedures. To review these policies and procedures please click on the links below.

Attendance/Illness:

In case of illness or other unavoidable cause of absence, the student must communicate as soon as possible with his/her instructor or Program Head or Chief Instructor, indicating the reason for the absence. Students who are seeking accommodation for a medical absence must have a BCIT approved medical certificate submitted to the department, substantiating the reason for absence. For other absences, the student should be prepared to provide appropriate supporting documentation. Unapproved absence in excess of the prescribed regulations within this outline may

result in failure or forced withdrawal from the course or program. **Please see Policy 5101 - Student Regulations, and accompanying procedures.**<sup>1</sup>

**Academic Integrity:**

Violation of academic integrity, including plagiarism, dishonesty in assignments, examinations, or other academic performances are prohibited and will be handled in accordance with **Policy 5104 - Academic Integrity and Appeals, and accompanying procedures.**<sup>2</sup>

**Accommodation:**

Any student who may require accommodation from BCIT because of a physical or mental disability should refer to BCIT's Policy on Accommodation for Students with Disabilities (Policy #4501), and contact BCIT's Disability Resource Centre (SW1 2360, 604-451-6963) at the earliest possible time. Requests for accommodation must be made to the Disability Resource Centre, and should not be made to a course instructor or Program area.

Any student who needs special assistance in the event of a medical emergency or building evacuation (either because of a disability or for any other reason) should promptly inform their course instructor(s) and the Disability Resource Centre of their personal circumstances.

**Human Rights, Harassment and Discrimination:**

The BCIT community is made up of individuals from every ability, background, experience and identity, each contributing uniquely to the richness and diversity of the BCIT community as a whole. In recognition of this, and the intrinsic value of our diversity, BCIT seeks to foster a climate of collaboration, understanding and mutual respect between all members of the community and ensure an inclusive accessible working and learning environment where everyone can succeed.

Campus Mediation Services is a supportive resource for both students and employees of BCIT, to foster a respectful learning and working environment. Any student who feels that they are experiencing discrimination or harassment (personal or human rights-related) can confidentially access this resource for advice and support. Please see **Policy 7507 – Harassment and Discrimination and accompanying procedure.**<sup>3</sup>

Students should make themselves aware of additional Education, Administration, Safety and other BCIT policies listed at **<http://www.bcit.ca/about/administration/policies.shtml>**<sup>4</sup>

## Policy for School of Computing and Academic Studies

Attempts: Students must successfully complete a course within a maximum of three (3) attempts at the course. Students with two attempts in a single course will be allowed to repeat the course only upon special written permission from the Associate Dean. Students who have not successfully completed a course within three attempts will not be eligible to graduate from their respective program.

## Approved

*I verify that the content of this course outline is current.*

James Parry, Instructor  
December 28, 2015

*I verify that this course outline has been reviewed.*

Robert Neilson, Program Head  
December 30, 2015

*I verify that this course outline has been reviewed and complies with BCIT policy.*

Dean Hildebrand, Associate Dean, Science and Technology  
January 01, 2016

Note: Should changes be required to the content of this course outline, students will be given reasonable notice.

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## Links

1. [bcit.ca/files/pdf/policies/5101.pdf](http://bcit.ca/files/pdf/policies/5101.pdf)
  2. [bcit.ca/files/pdf/policies/5104.pdf](http://bcit.ca/files/pdf/policies/5104.pdf)
  3. [bcit.ca/files/pdf/policies/7507.pdf](http://bcit.ca/files/pdf/policies/7507.pdf)
  4. [bcit.ca/about/administration/policies](http://bcit.ca/about/administration/policies)
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