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Program Coordinator:	Bernie Monette

# **COURSE OUTLINE ACADEMIC YEAR 2015/2016**

Course Code: HTTP 5203 (Formerly HTTP 507)	Schedule Type Code: LES	Credit Value: 3	Class Hours: 4
Programs: Web Developme	nt	Pre-Requisite(s): HTTP 5101, HTTP 5102, 5103, and 5105	Co-requisite(s): N/A
Pre-requisite for: HTTP 5202	2, 5303, 5304, and	l 5305	

Program outcomes emphasized in this course:

Design and develop web services for a website using software programs.

Design a full featured functioning commercial website using software programs, including a defined information architecture that is supported by navigation, layout, text and graphics.

Approved By Associate Dean:

Signature:

Robert Richardson

Date: Dec. 18, 2015

### **Course Description**

This course is an introduction to XML and web services. Students will learn the extensible markup language (XML), including how to write documents, validate documents, and parse and manipulate documents.

#### **Course Rationale**

Students will also develop and consume web services to enable application integration within different platforms. Techniques for securing web services will be presented as well as design patterns for Web services.

# **Learning Outcomes**

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

Write "well-formed" XML documents with styles generated from CSS or XSLT files.

Validate XML documents using Document Type Definitions (DTD) or SCHEMA.

Transform XML documents with XSLT.

Pass data between pages.

Write code using XPath for locating specific XML data.

Create Really Simple Syndication (RSS) feeds.

Select, Insert, Update or Delete from XML DOM.

Parse and read XML with JavaScript

Explain how Web services solve problems encountered with traditional approaches to designing distributed applications.

Describe the architecture of a web services-based solution.

Describe the underlying technologies of Web services and explain how to use PHP to implement them.

Implement a Web service consumer

Implement a simple Web Service.

Publish and deploy a Web service.

Implement caching in a Web service

Secure a web service

Parse, alter and create XML documents with PHP, using SimpleXML and PHP DOM

#### **Essential Employability Skills**

Essential Employability Skills are transferable skills that provide the foundation for a student's academic, vocational, and personal success.

Communication	X	Critical Thinking & Problem Solving	Interpersonal
Numeracy	X	Information Management	Personal

#### **Learning Resources**

#### Required Resources:

Fawcett, Ayers and Quin Beginning XML, 5th Edition Wrox ISBN-10: 1118162137 ISBN-13: 978-1118162132

### Supplemental Resources:

As supplied by the professor.

# Copyright

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See the Humber Libraries website (http://library.humber.ca) for additional information regarding copyright and for details on allowable limits.

### **Learning Delivery Format**

Lab, Classroom

#### **Course Content**

UNIT	TOPIC(S)	ASSESSMENTS	RESOURCES
Introduction	Review Course outline Introduction to XML Well formed XML Documents	Lab	Course outline on Blackboard
XML Validation	Document Type Definitions(DTD) XML schemas	Lab Quiz	Assignments, handouts, and lectures are on Blackboard
XML Styling	XML and XPath  XML and XSLT	Lab	
XML DOM	XML DOM	Lab	
KML with XML with JavaScript Project JavaScript			
XML with PHP	XML with PHP	Project	

Web service	Introduction to Web Services	Lab	
	Describing Web Services SOAP and WSDL		
	JSON		
	Restful Services and API's		
	AJAX and Web Services		
	Creating and consuming Web Services		
	Securing Web Services Configuration & Optimization		

Please note: this course schedule may change as resources and circumstances require.

# Please read Humber's academic calendar at

http://www.humber.ca/admissions/academic-calendar for important dates.

#### **Student Evaluations**

Quizzes	20
Tests	40
Projects	30
Labs	10
	Total = 100%

### **Degree Students:**

In addition to meeting all program specific course and credit requirements, students must have

Cumulative Program Grade Point Average (CPGPA) of ≥ 65 in order to be eligible for graduation.

#### **Diploma Students / Post Grad:**

In addition to meeting all program specific course and credit requirements, students must have

Cumulative Program Grade Point Average (CPGPA) of ≥ 60 in order to be eligible for graduation.

### **Policies and Procedures**

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

It is the student's responsibility to be aware of the College Academic Regulations which can be found on the following website: <a href="http://www.humber.ca/academic-regulations">http://www.humber.ca/academic-regulations</a>

The program handbook is available on Blackboard. If you cannot find it please contact the program coordinator. It is your responsibility to read, understand, and follow the program handbook.

#### Late work

This is a post-graduate level course and it is expected that all work should be handed in on time. If for any reason this is not possible, it is your responsibility to anticipate and discuss the matter with your professor. Medical cases which may interfere with deadlines usually require confirmation in writing from a health care professional. Late work is normally subject to a 5% (five per cent) per day penalty and a zero grade after 10 days. Late will work will be accepted solely by arrangement and at the discretion of the professor.

### **Academic Integrity**

Academic integrity is essentially honesty in all academic endeavors. Academic integrity requires that students avoid all forms of academic misconduct or dishonesty, including plagiarism, cheating on tests or exams or any misrepresentation of academic accomplishment.

# **Academic Concern/Appeals**

If a student has questions or concerns regarding a grade on an assignment or test, the student should discuss the matter with the faculty member. The Program Co-ordinator and/or the Associate Dean may be asked to assist if the faculty member and student are unable to resolve issues. For additional information please refer to Section 13 of College's Academic Complaint and Appeal Policy at the web site identified above.

# **Prior Learning Assessment Recognition (PLAR)**

Course credits may be granted in recognition of prior learning, and that Application for Consideration is made through the Office of the Registrar at <a href="http://www.humber.ca/plar/docs/pla.pdf">http://www.humber.ca/plar/docs/pla.pdf</a>.

Each course outline must indicate method(s) of assessment.

Challenge E <u>xa</u> m	Portfolio	Skills Test	Interview	Other (Specify)	Not Available For PLAR
					x

### **Accessible Learning Services**

Humber seeks to create a welcoming environment where equity, diversity and safety of all groups are fundamental. Humber is dedicated to providing equal access to students with disabilities. The Disability Services staff are available by appointment to assess specific needs,

provide referrals and arrange appropriate accommodations. If you require academic accommodations, contact:

Disability Services: http://www.humber.ca/disabilityservices/

North Campus: (416) 675-6622 X5180 Lakeshore Campus: (416) 675-6622 X3265

#### Disclaimer

While every effort is made by the professor/faculty to cover all material listed in the outline, the order, content, and/or evaluation may change in the event of special circumstances (e.g. time constraints due to inclement weather, sickness, college closure, technology/equipment problems or changes, etc.). In any such case, students will be given appropriate notification in writing, with approval from the Dean (or designate) of the School.

# Appendix

Essential Employability Skills (MTCU Requirements)	Graduates of the program reliably demonstrate the ability to:	
Communication		
Reading	1. communicate clearly, concisely and correctly in the written,	
Writing	spoken and visual form that fulfills the purpose and meets the needs	
Speaking	of the audience	
Listening	<ul> <li>2. respond to written, spoken, or visual messages in a manner that ensures effective communication</li> </ul>	
Presenting		
Numeracy		
Understanding and Applying Mathematical Concepts and Reasoning	3. execute mathematical operations accurately	
Analysing and using Numerical Data		
Conceptualizing		
Critical Thinking & Problem Solving		
Analysing	4. apply a systematic approach to solve problems	
Synthesising	5. use a variety of thinking skills to anticipate and solve problems	
Evaluating		
Decision-Making		
Creative and Innovative Thinking		
Information Management		
Gathering and managing information		

Essential Employability Skills (MTCU Requirements)	Graduates of the program reliably demonstrate the ability to:			
Selecting and using appropriate tools and technology for a task or project	6. locate, select, organize and document information using appropriate technology and information systems			
Computer literacy	7. analyse, evaluate and apply relevant information for a variety of			
Internet skills	sources			
Interpersonal				
Teamwork	8. show respect for the diverse opinions, values, belief systems n			
Relationship management	and contributions of others			
Conflict resolution	9. interact with others in groups or teams in ways that contribute to			
Leadership	the effect working relationships and the achievement of goals			
Networking				
Personal				
Managing self	10. manage the use of time and other resources to complete			
Managing change and being flexible and adaptable	projects 11. take responsibility for one's actions, decisions, and			
Engaging in reflective practice	consequences			
Demonstrating personal responsibility				