Faculty:	Sean Doyle
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Faculty Availability:	By appointment
Program Coordinator:	*Bernie Monette*

COURSE OUTLINE ACADEMIC YEAR 2015/2016

Course Title: Security & Quality Assurance			
Course Code: HTTP 5201 (Formerly HTTP 505)	Schedule Type Code: LES	Credit Value: 3	Class Hours: 4
Programs: Web Development		Pre-Requisite(s): HTTP5102 Project Management	Co-requisite(s):
Pre-requisite for: HTTP5302 Trends in Web Development, HTTP5305 Internship			
Restrictions:			

Program outcomes emphasized in this course:

Implement a website solution based on a set of business requirements or client specifications.
Create a complete content management system using a database and scripting language.
Develop data-driven websites for multiple platforms in accordance with best practices, industry standards in content management, security, database design, interface design, usability, accessibility and personalization.

Approved By:

Dean/Associate Dean:

Signature:_____ Date_____

request.

Course Description

In this course students will learn techniques and strategies for protecting their websites from errors and the most common forms of hacking. Creating and executing test plans for code as well as users will provide them with a deeper understating of how their code works, and how users might work with their code. Additionally, students will learn to implement industry-standard production tools used to ensure quality and security for development teams.

Course Rationale

Database driven websites are great collectors of information: in particular personal information. It is important that web developers understand the security aspects of information collection and storage – as well as why a user would or wouldn't utilize a product based on this potential exposure. In conjunction with security is making sure the system works according to specifications, and is useful to potential customers. In this course, students will review and plan out the security measures for a database-driven website. Additionally students will devise testing plans to ascertain that their website is operating according to specifications, and to user expectations.

Learning Outcomes

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

- Understand and implement a security structure & secure database communication
- Create test plans, strategies and suites for evaluating web applications/websites
- Determine and discuss security for websites
- Evaluate the results of tests to determine appropriate quality assurance standards and security measures
- Develop a website testing mechanism that follows requirements documentation
- Understand and implement encryption
- Run user testing sessions and evaluate the findings
- Implement industry-standard production tools

Essential Employability Skills

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

x	*Communication*	*x*	*Critical Thinking & Problem Solving*	*x*	*Interpersonal*
	Numeracy	*x*	*Information Management*		*Personal*

Learning Resources

Recommended Resources:

Krug, Steve	**Rocket Surgery Made Easy**	New Riders, ISBN: 978-0321657299
Patton, Ron	**Software Testing (2nd Ed.)**	Sams Pub, ISBN: 978-0672327988

Saleh, Hazem **JavaScript Unit Testing** PACKT Pub, ISBN: 978-1782160625

Supplemental Resources:

As provided 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

Lectures, presentations, demonstrations, hands-on practical workshops.

Course Content

UNIT	TOPIC(S)	ASSESSMENTS	RESOURCES
Introduction to Security & Quality Assurance	Purpose and need of security & quality assurance Implementing Coding Standards	Lab & Assignment	*In-class PowerPoint & notes, Course outline on Blackboard*
Testing Design & Strategies	Evaluating specification documents Types of Testing JavaScript Testing Libraries	Lab & Assignment	*In-class PowerPoint & notes*
User Testing	Test Design & execution Evaluating results & observations	Lab & Assignment	*In-class PowerPoint & notes*
Production Tools – Part 1	Implementing version control with Git	Lab & Assignment	*In-class PowerPoint & notes*
Midterm Examination	n/a	n/a	*n/a*

UNIT	TOPIC(S)	ASSESSMENTS	RESOURCES
Lean Customer Development	Finding the right people for your product and finding the right product for your people.	Lab, Field research	*In-class PowerPoint & notes*
Testing Strategies & Documentation	Understanding various types of attacks Testing strategy Testing plans Testing suites	Lab, Major Assignment	*In-class PowerPoint & notes*
Production Tools – Part 2	Implementing a task runner Single Page Applications with Angular	Lab	*In-class PowerPoint & notes*
Final Examination	n/a	Final documentation due	*n/a*

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

Midterm	25
Documentation	25
Assignments	30
Labs	20
Total = 100%	

Diploma Students:
In addition to meeting all program specific course and credit requirements, students must have a 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: http://www.humber.ca/academic-regulations

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 http://www.humber.ca/plar/docs/pla.pdf.
Each course outline must indicate method(s) of assessment.

Challenge Exam	*Portfolio*	*Skills Test*	*Interview*	*Other (Specify)*	*Not Available For PLAR*
					x

Disability 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, spoken and visual form that fulfills the purpose and meets the needs of the audience 2. respond to written, spoken, or visual messages in a manner that ensures effective communication
Writing	
Speaking	
Listening	
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 5. use a variety of thinking skills to anticipate and solve problems
Synthesising	
Evaluating	
Decision-Making	
Creative and Innovative Thinking	
Information Management	
Gathering and managing information	6. locate, select, organize and document information using appropriate technology and information systems 7. analyse, evaluate and apply relevant information for a variety of sources
Selecting and using appropriate tools and technology for a task or project	
Computer literacy	
Internet skills	
Interpersonal	
Teamwork	8. show respect for the diverse opinions, values, belief systems n and contributions of others
Relationship management	

Essential Employability Skills (MTCU Requirements)	Graduates of the program reliably demonstrate the ability to:
Conflict resolution	9. interact with others in groups or teams in ways that contribute to the effect working relationships and the achievement of goals
Leadership	
Networking	
Personal	
Managing self	10. manage the use of time and other resources to complete projects 11. take responsibility for one's actions, decisions, and consequences
Managing change and being flexible and adaptable	
Engaging in reflective practice	
Demonstrating personal responsibility	