



Faculty of Science

CSCI 3230U: Web Application Development  
Course outline for Fall 2016

### 1. Course Details & Important Dates\*

Term	Course Type	Day	Time
Fall 2016	Undergraduate	Tuesdays	2:10pm – 3:30pm
		Fridays	3:40pm – 5:00pm

Location	CRN #	Classes Start	Classes End	Final Exam Period
UL 3	43798	Thu. Sep. 8, 2016	Mon. Dec. 5, 2016	Dec. 7 – 18, 2016

\* for other important dates go to: [www.uoit.ca](http://www.uoit.ca) >Current Students >Important Dates and Deadlines

Description	Date
Thanksgiving	Mon. Oct. 10, 2016
Co-curricular period	Thu. Oct. 27, 2016
Co-curricular period	Fri. Oct. 28, 2016

### 2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Randy J. Fortier	UA 2032	905-721-8668 x2114	<a href="mailto:randy.fortier@uoit.ca">randy.fortier@uoit.ca</a>
Office Hours: Tuesdays, 9:40am – 11:00am and Wednesdays, 2:10pm – 3:30pm, UA 2032			

Laboratory/Teaching Assistant Name	Email
Mariana Shimabukuro	<a href="mailto:MarianaAkemi.Shimabukuro@uoit.ca">MarianaAkemi.Shimabukuro@uoit.ca</a>

### 3. Course Description

This course serves as an applied introduction to designing and developing web applications. Topics to be covered in this course include web architectures, client-side design and interactivity, server-side web page generation, accessing and updating database data, using web services/APIs, XML, and web security. Students will gain practical experience through the development of one or more web applications.

### 4. Learning Outcomes

On the successful completion of the course, students will be able to:

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- Create web applications using HTML5
- Design a web-based user interface, and implement using CSS
- Create interactive client-side elements for a web application with JavaScript
- Use popular JavaScript-based libraries
- Implement server-side behaviour using Node.js
- Create secure web applications
- Understand and consume web services

### 5. Course Design

Lectures in this course will include both presented material, and interactive elements. The classroom interaction will be designed to solidify concepts and techniques learned in the lectures. Examples for this course could include designing interactive client-side elements, accessing data from a database, and dynamically generating web pages.

In order to achieve success in this course, students must attend all lectures. Regular absences mean that you miss critical information and just are not able to catch up. The instructor will provide the majority of classroom materials on the Blackboard site. The TAs will supervise the laboratories, while you complete an assignment designed by the instructor. The instructor and the TAs will collaborate on some of the marking.

### 6. Outline of Topics in the Course (Subject to Change)

1. The Internet, the web, and HTTP
2. Creating web applications with HTML and CSS
3. Interaction with JavaScript and jQuery
4. Web data, AJAX, JSON, and XML
5. Server-side functionality with Node.js
6. Database with MongoDB
7. Web application security
8. Web services

### 7. Required Texts/Readings

No textbook is required for this course.

*Web readings may be assigned or recommended during the course.*

### 8. Evaluation Method

Component	Due Date	Weight
Labs	Each week	10%
Assignment #1	Friday, October 21, 2016	5%
Assignment #2	Friday, November 11, 2016	10%
Midterm	Tuesday, October 25, 2016	20%
Final project	Monday, November 28, 2016	25%
Final examination	TBA, December 2016	30%

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*Final course grades may be adjusted to conform to program or Faculty grade distribution profiles. Further information on grading can be found in Section 5 of the UOIT Academic Calendar.*

### **9. Assignments and Tests**

Any student who misses an examination without a valid medical reason and documentation will receive zero for that examination. Those with medical documentation will either be given a makeup exam or will have the weight of the examination added to the final exam.

For assignments, a late penalty of 10% per day late will be applied, in the absence of a medical note, to a maximum of 3 days late. After 3 days, the assignment will not be accepted.

Lab assignments are due within one week of the start of the laboratory period.

### **10. Accessibility**

Students with disabilities may request to be considered for formal academic accommodation in accordance with the Ontario Human Rights Code. Students seeking accommodation must make their requests through Student Accessibility Services. Requests must be made in a timely manner, and students must provide relevant and recent documentation to verify the effect of their disability and to allow the university to determine appropriate accommodations.

Accommodation decisions will be made in accordance with the Ontario Human Rights Code. Accommodations will be consistent with and supportive of the essential requirements of courses and programs, and provided in a way that respects the dignity of students with disabilities and encourages integration and equality of opportunity. Reasonable academic accommodation may require instructors to exercise creativity and flexibility in responding to the needs of students with disabilities while maintaining academic integrity.

### **11. Academic Integrity**

Students and faculty at UOIT share an important responsibility to maintain the integrity of the teaching and learning relationship. This relationship is characterized by honesty, fairness and mutual respect for the aim and principles of the pursuit of education. Academic misconduct impedes the activities of the university community and is punishable by appropriate disciplinary action.

Students are expected to be familiar with UOIT's regulations on Academic Conduct (Section 5.15 of the Academic Calendar) which sets out the kinds of actions that constitute academic misconduct, including plagiarism, copying or allowing one's own work to be copied, use of unauthorized aids in examinations and tests, submitting work prepared in collaboration with another student when such collaboration has not been authorized, and other academic offences. The regulations also describe the procedures for dealing with allegations, and the sanctions for any finding of academic misconduct, which can range from a written reprimand to permanent expulsion from the university. A lack of familiarity with UOIT's regulations on academic conduct does not constitute a defense against its application.

Further information about academic misconduct can be found in the Academic Integrity link on your laptop.

## **12. Turnitin**

UOIT and faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that by taking this course all assignments are subject to submission for textual similarity review by Turnitin.com. Assignments submitted to Turnitin.com will be included as source documents in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents for five academic years. The instructor may require students to submit their assignments electronically to Turnitin.com or the instructor may submit questionable text on behalf of a student. The terms that apply to UOIT's use of the Turnitin.com service are described on the Turnitin.com website.

Students who do not wish to have their work submitted to Turnitin.com must inform their instructor at the time the work is assigned and provide with their assignment a signed Turnitin.com Assignment Cover sheet:

<http://www.uoit.ca/assets/Academic~Integrity~Site/Forms/Assignment%20Cover%20sheet.pdf>

Further information about Turnitin can be found on the Academic Integrity link on your laptop.

Assignments, lab assignments, and exams all are subject to plagiarism detection, and that detection may also include code assessment tools in addition to Turnitin.

## **13. Midterms and Final Examinations**

Both the midterm and final examinations can include, or wholly consist of, a lab exam. This could include using the skills you've learned in the lectures, labs, and assignments to complete a programming task within a specified time limit. The result will be posted to Blackboard for evaluation. The examinations may or may not include a quiz portion.

Final examinations are held during the final examination period at the end of the semester and may take place in a different room and on a different day from the regularly scheduled class. Check the published Examination Schedule for a complete list of days and times.

Students are advised to obtain their Student ID Card well in advance of the examination period as they will not be able to write their examinations without it. Student ID cards can be obtained at the Campus ID Services, in G1004 in the Campus Recreation and Wellness Centre.

Students who are unable to write a final examination when scheduled due to religious publications may make arrangements to write a deferred examination. These students are required to submit a Request for Accommodation for Religious Obligations to the Faculty concerned as soon as possible and no later than three week prior to the first day of the final examination period.

Further information on final examinations can be found in Section 5.24 of the Academic Calendar.

#### **14. Course Evaluations**

Student evaluation of teaching is a highly valued and helpful mechanism for monitoring the quality of UOIT's programs and instructional effectiveness. To that end, course evaluations are administered by an external company in an online, anonymous process during the last few weeks of classes. Students are encouraged to participate actively in this process and will be notified of the dates. Notifications about course evaluations will be sent via e-mail, and posted on Blackboard, Weekly News and signage around the campus.