



Faculty of Science

CSCI 3230U: Web Application Development
Course outline for Winter 2019

1. Course Details & Important Dates*

Term	Course Type	Day	Time
Winter 2019	Undergraduate	Tuesdays	8:10am – 9:30am
		Thursdays	8:10am – 9:30am

Location	CRN #	Classes Start	Classes End	Final Exam Period
UL 9	43798	Mon. Jan. 7, 2019	Sat. Apr. 6, 2019	Apr. 8 – 20, 2019

* for other important dates go to: www.uoit.ca >Current Students >Important Dates and Deadlines

2. Instructor Contact Information

Instructor Name	Office	Phone	Email
Randy J. Fortier	UA 2032	905-721-8668 x2114	randy.fortier@uoit.ca
Office Hours: Mondays, 1:00pm – 2:00pm, UA 2032 Thursdays, 9:40am – 10:30am, UA 2032			

Laboratory/Teaching Assistant Name	Email
Luisa Rojas Garcia	Luisa.RojasGarcia@uoit.ca
Andrei Stoica	Andrei.Stoica@uoit.ca

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:

- Create web applications using HTML5
- Design a web-based user interface, and apply styling and layout to that user interface
- Create interactive client-side elements for a web application with JavaScript
- Use popular JavaScript-based libraries, such as D3.js or jQuery
- Implement server-side behaviour using a modern library, such as Node.js
- Save and access data from a persistent store, such as PostgreSQL or MongoDB

- 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

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. Assignments and Tests

Component	Due Date	Weight
Labs	Each week	10%
Assignment #1	February 26, 2019	5%
Assignment #2	March 19, 2019	10%
Midterm lab exam	March 14, 2019	20%
Final project	March 29, 2019	20%
Final examination	TBA, April 2019	35%

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.

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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.

9. Students with Disabilities

Accommodating students with disabilities at UOIT is a responsibility shared among various partners: the students themselves, SAS staff and faculty members. To ensure that disability-related concerns are properly addressed during this course, students with documented disabilities and who may require assistance to participate in this class are encouraged to speak with me as soon as possible. **Students who suspect they have a disability that may affect their participation in this course are advised to go to Student Accessibility Services (SAS) as soon as possible.** Maintaining communication and working collaboratively with SAS and faculty members will ensure you have the greatest chance of academic success.

- Students taking courses on the North Campus Location can visit Student Accessibility Services in the U5 Building located in the Student Life Suite
- Students taking courses on the Downtown Oshawa Campus Location can visit Student Accessibility Services in the 61 Charles St. Building, 2nd Floor, Room DTA 225 in the Student Life Suite.

Disability-related support and accommodation support is available for students with mental health, physical, mobility, sensory, medical, cognitive, or learning challenges. Office hours are 8:30am-4:30pm, Mon-Fri. For more information on services provided, you can visit the SAS website at <http://uoit.ca/studentaccessibility>

Students may contact Student Accessibility Services by calling 905-721-3266, or email studentaccessibility@uoit.ca

Students who require the use of the Test Centre to write tests, midterms, or quizzes MUST register online using the SAS test/exam sign-up module, found here www.uoit.ca/SASexams. Students must sign up for tests, midterms or quizzes AT LEAST seven (7) days before the date of the test.

Students must register for final exams by the registration deadline, which is typically 2 weeks prior to the start of the final examination period. SAS will notify students of the registration deadline date.

10. 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 and abide by 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, among 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 resubmission of work to a failing grade 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. Extra support services are available to all UOIT students in academic development, study skills, counseling, and peer mentorship. More information on student support services can be found in the Academic Calendar (Section 8).

Copying of assignments or lab assignments, and cheating on tests or the final exam will not be tolerated in this course. Violators will face a minimum of a zero mark for that course component, and likely further disciplinary action through the academic integrity council.

11. Safety

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact studentlife@uoit.ca for support.

UOIT is committed to the prevention of sexual violence in all its forms. For any UOIT student who has experienced Sexual Violence, **UOIT can help**. UOIT will make accommodations to cater to the diverse backgrounds, cultures, and identities of students when dealing with individual cases.

If you think you have been subjected to or witnessed sexual violence:

- Reach out to a Support Worker, who are specially trained individuals authorized to receive confidential disclosures about incidents of sexual violence. Support Workers can offer help and resolutions options which can include safety plans, accommodations, mental health support, and more. To make an appointment with a Support Worker, call 905.721.3392 or email supportworker@uoit.ca
- Learn more about your options at: www.uoit.ca/sexualviolence

12. Midterms and Final Examinations

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 weeks 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.

13. Freedom of Information and Protection of Privacy Act

The following is an important notice regarding the process for submitting course assignments, quizzes and other evaluative material in your courses in the Faculty of Science.

As you may know, UOIT is governed by the *Freedom of Information and Protection of Privacy Act* (“FIPPA”). In addition to providing a mechanism for requesting records held by the university, this legislation also requires that UOIT not disclose the personal information of its students without their consent.

FIPPA’s definition of “personal information” includes, among other things, documents that contain both your name and your Banner ID. For example, this could include graded test papers or assignments. To ensure that your rights to privacy are protected, the Faculty of Science encourages you to use only your Banner ID on assignments or test papers being submitted for grading. This policy is intended to prevent the inadvertent disclosure of your information where graded papers are returned to groups of students at the same time. If you still wish to write both your name and your Banner ID on your tests and assignments, please be advised that UOIT will interpret this as an implied consent to the disclosure of your personal information in the normal course of returning graded materials to students.

If you have any questions or concerns relating to the new policy or the issue of implied consent addressed above, please contact accessandprivacy@uoit.ca

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.