



# THE UNIVERSITY OF WINNIPEG

## Applied Computer Science

**Course Number:** ACS-2909-050  
**Course Name:** Internet Programming  
**Course Webpage:** <http://courses.acs.uwinnipeg.ca/2909-050>

### Instructor Information

**Instructor:** Daniel Slack, P.Eng.      **Email:** [d.slack@uwinnipeg.ca](mailto:d.slack@uwinnipeg.ca)  
**Class Room No:** 3D01      **Class Meeting Time:** W 6:00 - 9:00 pm  
**Office Room No:** 3C07      **Office Hours:** Wed. 5:00 - 6:00 pm

### Important Dates

<b>First Class:</b>	September 6 <sup>th</sup> , 2017
<b>Assignment 1:</b>	September 27 <sup>th</sup> , 2017
<b>Reading Week (no classes)</b>	October 8 <sup>th</sup> – October 14 <sup>th</sup> 2017
<b>Midterm Test:</b>	6:00 pm October 18 <sup>th</sup> , 2017
<b>Assignment 2:</b>	October 25 <sup>th</sup> , 2017
<b>Withdrawal date w/o academic penalty<sup>2</sup>:</b>	November 10 <sup>th</sup> , 2017
<b>Assignment 3:</b>	November 8 <sup>th</sup> , 2017
<b>Assignment 4:</b>	November 22 <sup>nd</sup> , 2017
<b>Last Scheduled Class:</b>	November 29 <sup>th</sup> , 2017
<b>Final Examination (Comprehensive):</b>	December 13 <sup>th</sup> , 2017

<http://www.uwinnipeg.ca/exam-schedules/index.html>

<sup>2</sup>A minimum of 20% of the work on which the final grade is based will be evaluated and available to the student before the voluntary withdrawal date.

### Course Objectives/Learning Outcomes

This course provides students with an overview of Internet and World Wide Web programming, development tools, resources, utilities, multimedia, and security issues. Students gain hands-on experience in Javascript, Rich Internet Applications (RIAs), Web services, Design Patterns and Mobile Application Development. Students not familiar with HTML and CSS are strongly encouraged to take ACS-1809(3).

### Evaluation Criteria

**Midterm Examination (25%)**  
There will be **one** midterm test.

### **Assignments (25%)**

There will be **four** assignments, the first three consist of **6%** (each) of your final grade and the final assignment is **7%**. Submission procedure and other requirements will be stated in individual assignments.

Grace days: Each student will receive 3 grace days (for assignments only). These are to cover scheduling crunch, out-of-town trips, illness, and minor setbacks. I recommend saving them until the end of the term.

Late Penalties: For each assignment, students can use their grace days to extend the due date. Once a student has used all their grace days, a late penalty of 15% a day (for a maximum of 3 days) will be imposed. After 3 days the student will not receive any marks for the assignment. **NO EXCEPTIONS** without medical certificate.

No handwritten assignments will be accepted for evaluation.

### **Final Examination (50%)**

The final examination is comprehensive.

### **Final Letter Grade Assignment**

Historically, numerical percentages have been converted to letter grades using the following scale. However, instructors can deviate from these values based on pedagogical nuances of a particular class, and final grades are subject to approval by the Department Review Committee.

A+	90+ - 100%	B	70 - 74%	F	below 50%
A	85 - 90%	C+	65 - 69%		
A-	80 - 84%	C	60 - 64%		
B+	75 - 79%	D	50 - 59%		

### **Exam Requirements**

- Photo ID is **required**
- Unless a medical certificate is provided, no accommodation is made for missed exams
- No equipment (*e.g.* calculators, dictionaries, handheld devices) are authorized for use in tests/exams

### **Email Communication**

Emails from accounts at uwinnipeg.ca are usually not filtered by the UofW email filter.

Thereby it is recommended electronic communication used for the course utilize a UofW email account to minimize the risk of filtering.

## **Student Services and Information**

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 786-9771 or [accessibilityservices@uwinnipeg.ca](mailto:accessibilityservices@uwinnipeg.ca) to discuss appropriate options. All information about a student's disability or medical condition remains confidential <http://www.uwinnipeg.ca/accessibility>.

Students may choose not to attend classes or write examinations on holy days of their religion, but they must notify their instructors at least two weeks in advance. Instructors will then provide opportunity for students to make up work examinations without penalty. A list of religious holidays can be found in the 2017-18 Undergraduate Academic Calendar.

All students, faculty and staff have the right to participate, learn, and work in an environment that is free of harassment and discrimination. The UW Respectful Working and Learning Environment Policy may be found online at [www.uwinnipeg.ca/respect](http://www.uwinnipeg.ca/respect).

## **Misuse of Computer Facilities, Plagiarism, and Cheating**

Academic dishonesty is a very serious offense and will be dealt with in accordance with the University's policies. Be sure that you have read and understood Regulations & Policies #8, in the 2017-2018 UW Undergraduate Academic Calendar available at <http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf>.

Additional information is available at University of Winnipeg library video tutorial "Avoiding Plagiarism" <https://www.youtube.com/watch?v=UvFdxRU9a8g>

## **Required Text Books**

### **Main texts (available online):**

1. Eloquent JavaScript; 2nd Edition; Marijn Haverbeke; William Pollock, ISBN-10: 1-59327-584-6
2. JavaScript Design Patterns; Addy Osmani; O'Reilly; ISBN-10: 1-44933-181-5

### **Supplementary text:**

1. Head First HTML5 Programming; Eric Freeman, Elisabeth Robson; O'Reilly, ISBN: 978-1-449-39054-9
2. Head First HTML with CSS & XHTML; Eric Freeman, Elisabeth Robson; O'Reilly, ISBN: 978-0-596-10197-8
3. HTML, XHTML, and Dynamic HTML: Comprehensive, 4<sup>th</sup> Edition; Patrick Carey; Cengage, ISBN-13: 978-14239-2543-9
4. Javascript: The Good Parts; Douglas Crockford; ISBN-13: 978-0596517748
5. jQuery Fundamentals; Rebecca Murphey; available at: <http://jqfundamentals.com/>

6. jQuery: Novice to Ninja; Earle Castledine, Craig Sharkie; available at:  
<http://www.sitepoint.com/books/jquery1/samplechapters.php>
7. Essential JavaScript & jQuery Design Patterns; Addy Osmani; available at:  
<http://addyosmani.com/blog/essentialjsdesignpatterns/>

Besides the information contained in these books, I may also discuss appropriate material and examples from other sources. Students are responsible for all material covered in the class.

### **Prerequisite Information**<sup>1</sup> (This information can be found in the UW General Calendar)

A grade of at least C in ACS-1903/3 or ACS-1905/3.

<sup>1</sup>Make sure that you have the necessary prerequisites to take this course. If you have not successfully completed the above listed courses, it is in your interest to drop the course.

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### **Course Topics**

1. HTML5
2. JavaScript
3. Document Object Model
4. Events and Event Handlers
5. Geolocation
6. Web Services
7. Canvas Object
8. Effects
9. Web Storage
10. Web Workers
11. Design Patterns
12. JQuery
13. Bootstrap

Note: not all of the above topics may be covered.

### **Course Readings**

Relevant textbook chapters and sections will be given during lectures.

## **Recommended Study Habits**

Students who do well in this class tend to spend an extra 3-5 hours per week doing the following:

- Read the textbook before coming to class
- Attend lectures
- Take notes
- Attempt the problems and exercises at the end of the chapters
- Submit all the exercises and assignments
- Form study groups to study for the midterm and exam
- Regularly ask questions

Advice: Students who fall behind find it very hard to catch up.

## **Additional Course Related Information**

1. When it is necessary to cancel a class due to exceptional circumstances, instructors will make every effort to inform you via uwinnipeg email, as well as the departmental assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms.
2. Your uwinnipeg email address will normally be used for course related correspondence.
3. Please note that withdrawing before the VW date does not necessarily result in a fee refund.