

COURSE SYLLABUS

[CMPT 350: WEB-PROGRAMMING]

Catalogue Description:

Web programming involves the development (or coding) of Web-based applications that typically follow the client-server architecture model. This course will focus on the concepts, technologies and tools needed for the development of web-centric applications. Special emphasis will be given to client-server programming, scripting, integration of existing application and high-level Web services choices, e.g., use of SOAP and REST.

Prerequisite(s): CMPT 280
Class Time & Location: 1:30 pm - 2:20 pm, MWF, Thorvaldson Building 124
Website: Moodle

Instructor Information

Instructor: Richard K. Lomotey
Contact: Email: richard.lomotey@usask.ca
 Office Phone: [306 966 6518]
Office Hours: Location: 178.5 Thorvaldson Building
 Hours: 10.00 am – 12.00 noon, MW

Course Objectives

- Students will understand the concept of Web technology languages (e.g., HTML5, JavaScript, PHP)
- Students will become familiar with key concepts in designing Web services (client-server systems, REST, SOAP).
- Students will become familiar with back-end design and storage issues including RDBMS and NoSQL systems.
- Students will be briefly introduced to cloud computing and its impact on Web programming and API usage.

Student Evaluation

Grading Scheme

Participation	5%
Assignments	20%
Pop Quiz	5%
Project	25%
Final Exam	45%
Total	100%

There will be three (3) assignments in the class. The first is due at the end of January, the second is due end of February, and the third is due end of March. Projects will be marked during the last week of classes.

Criteria that must be met to Pass

Completion of assignments and projects.

Attendance Expectation

You are expected to attend all lectures and labs.

Final Exam Scheduling:

The Registrar schedules all final examinations, including deferred and supplemental examinations. Students are advised not to make travel arrangements for the exam period until the official exam schedule has been posted.

Note: All students must be properly registered in order to attend lectures and receive credit for this course.

Textbook Information

Required Text

- Deitel & Deitel, "Internet & World Wide Web: How to Program", 5th Edition (2011), Prentice Hall ISBN: 978-0132151009

Recommended Texts

- Jon Duckett, "Web Design with HTML, CSS, JavaScript and jQuery Set", Edition: 1st, (2014), Wiley ISBN: 978-1-118-90744-3
- Robin Nixon, "Learning PHP, MySQL, JavaScript, CSS & HTML5: A Step-by-Step Guide to Creating Dynamic Websites", Edition: 3rd (2014), O'Reilly ISBN: 978-1-49194-946-7

Recommended Sources

- Good sources of information and instruction on:
 - a. HTML5, SQL, and Javascript is the W3Schools website, accessible at <http://www.w3schools.com/>
 - b. Web-based frameworks, accessible at <http://jquery.com>, <http://phonegap.com>, and <http://mediaqueri.es>

Lecture Schedule

Week	Major Items	Topics	Slides/References
Week 1		<ul style="list-style-type: none"> • Introduction to WWW • HTML 	Chapter (2, 3)
Week 2		<ul style="list-style-type: none"> • HTML5 	
Week 3		<ul style="list-style-type: none"> • Responsive Web <ul style="list-style-type: none"> ○ CSS ○ Media Queries ○ Content Adaptation 	Chapter (4,5)
Week 4		<ul style="list-style-type: none"> • JavaScript 	Chapter (6, 7, 8)

Week 5	Assignment 1	<ul style="list-style-type: none"> • DOM • AJAX • XML • JSON 	
Week 6		<ul style="list-style-type: none"> • PHP (I) • HTTP Client and Server • Tomcat 	
Week 7		<ul style="list-style-type: none"> • PHP (II) • RDBMS <ul style="list-style-type: none"> ◦ MySQL 	
Week 8		<ul style="list-style-type: none"> • NoSQL 	
Week 9		<ul style="list-style-type: none"> • Web Services <ul style="list-style-type: none"> ◦ REST ◦ SOAP 	
Week 10	Assignment 2	<ul style="list-style-type: none"> • JQuery 	
Week 11		<ul style="list-style-type: none"> • Mobile Web (Frameworks I) <ul style="list-style-type: none"> ◦ JQuerymobile 	
Week 12		<ul style="list-style-type: none"> • Frameworks (II) <ul style="list-style-type: none"> ◦ Node.js ◦ Angularjs 	
Week 13	Assignment 3	<ul style="list-style-type: none"> • Cloud Computing 	
Week 14	Project Inspection and Marking		

Course Overview

The course will tentatively cover the following topics:

- HTML5 and Scripting Languages
- Responsive and Adaptive Web Design
- Web-based frameworks for cross-platform application design
- Client-server architectures (Caching, Proxies, SQL, NoSQL)
- Web services
- Cloud computing and the adoption of Web-based APIs

Policies

Recording of Lectures

Students should seek approval from the instructor.

Late Assignments



Discuss with the instructor but there will be 10% penalty.

Missed Assignments

Discuss with the instructor

Missed Examinations

1. Students who miss an exam should contact the instructor as soon as possible. If it is known in advance that an exam will be missed, the instructor should be contacted before the exam.
2. "A student who is absent from a final examination due to medical, compassionate, or other valid reasons, may apply to the College of Arts and Science Undergraduate Student's Office for a **deferred** exam. **Application must be made within three business days of the missed examination** and be accompanied by supporting documents." (<http://artsandscience.usask.ca/students/help/success.php>)

Incomplete Course Work and Final Grades

"When a student has not completed the required course work, which includes any assignment or examination including the final examination, by the time of submission of the final grades, they may be granted an extension to permit completion of an assignment, or granted a deferred examination in the case of absence from a final examination.

Extensions past the final examination date for the completion of assignments must be approved by the Department Head, or Dean in non-departmentalized Colleges, and may exceed thirty days only in unusual circumstances. The student must apply to the instructor for such an extension and furnish satisfactory reasons for the deficiency. Deferred final examinations are granted as per College policy.

In the interim, the instructor will submit a computed percentile grade for the class which factors in the incomplete coursework as a zero, along with a grade comment of INF (Incomplete Failure) if a failing grade.

In the case where the student has a passing percentile grade but the instructor has indicated in the course outline that failure to complete the required coursework will result in failure in the course, a final grade of 49% will be submitted along with a grade comment of INF (Incomplete Failure).

If an extension is granted and the required assignment is submitted within the allotted time, or if a deferred examination is granted and written in the case of absence from the final examination, the instructor will submit a revised assigned final percentage grade. The grade change will replace the previous grade and any grade comment of INF (Incomplete Failure) will be removed.

A student can pass a course on the basis of work completed in the course provided that any incomplete course work has not been deemed mandatory by the instructor in the course outline and/or by College regulations for achieving a passing grade." (<http://policies.usask.ca/policies/academic-affairs/academic-courses.php>)

For policies governing examinations and grading, students are referred to the Assessment of Students section of the University policy "Academic courses: class delivery, examinations, and assessment of student learning" (<http://policies.usask.ca/policies/academic-affairs/academic-courses.php>)

Academic Honesty

The University of Saskatchewan is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Student Conduct & Appeals section of the University Secretary Website and avoid any behavior that could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or



participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

All students should read and be familiar with the Regulations on Academic Student Misconduct (<http://www.usask.ca/secretariat/student-conduct-appeals/StudentAcademicMisconduct.pdf>) as well as the Standard of Student Conduct in Non-Academic Matters and Procedures for Resolution of Complaints and Appeals (<http://www.usask.ca/secretariat/student-conduct-appeals/StudentNon-AcademicMisconduct.pdf>) Academic honesty is also defined and described in the Department of Computer Science Statement on Academic Honesty (<http://www.cs.usask.ca/undergrad/honesty.php>).

For more information on what academic integrity means for students see the Student Conduct & Appeals section of the University Secretary Website at:

<http://www.usask.ca/secretariat/student-conduct-appeals/forms/IntegrityDefined.pdf>

Examinations with Disability Services for Students (DSS)

Students who have disabilities (learning, medical, physical, or mental health) are strongly encouraged to register with Disability Services for Students (DSS) if they have not already done so. Students who suspect they may have disabilities should contact DSS for advice and referrals. In order to access DSS programs and supports, students must follow DSS policy and procedures. For more information, check <http://students.usask.ca/health/centres/disability-services-for-students.php>, or contact DSS at 966-7273 or dss@usask.ca.

Students registered with DSS may request alternative arrangements for mid-term and final examinations. Students must arrange such accommodations through DSS by the stated deadlines. Instructors shall provide the examinations for students who are being accommodated by the deadlines established by DSS.