

COURSE SYLLABUS

CMPT281: WEBSITE DESIGN AND DEVELOPMENT

Catalog Description:

Introduction to design concepts and issues in the development of usable applications on the World Wide Web, including visual design concepts, the user-centered iterative design process, and development technologies that enable application development for the Web.

Prerequisite(s):

CMPT 106.3 or CMPT 111.3

Note: CMPT 281 cannot be used towards requirements for a B.Sc. in Computer Science, but may be used as an open elective. CMPT 281 cannot be taken after CMPT 381 or CMPT 370 (but may be taken concurrently).

Class Time & Location:

Class: 10:30 am - 11:20 am MWF Thorvaldson Building 129

Lab: 9:00 am - 9:50 am R Thorvaldson Building S311

Website:

[Insert course website, if any]

Instructor Information

Instructor: Eric Neufeld

Contact: Email: eric@cs.usask.ca

Phone: (306) 966-4887

Office Hours: Location: 174.2, Thorvaldson Building

Hours: 10:00 am – 11:00 am, Thursdays (after the lab)

Course Objectives

At the end of the course, the acquired knowledge and skills will enable the student to:

- Build a simple web site that organizes information effectively
- Identify an organization for information based on its inherent structure (chronological, alphabetic, etc.).
- Use cascading style sheets to create style standards for a web site.
- Create a navigational framework that matches the content and genre of the site.
- Explain separation of concerns as it applies to the design and implementation of a web site
- Describe the issues involved in developing a web interface.
- Summarize the need and issues involved in web site implementation and integration.
- Explain why accessibility issues are an important consideration in web page development.
- Design and implement a web interface
- Compare/contrast graphic media file format characteristics such as color depth, compression and CODEC
- Explain and compare media file formats including lossy vs. lossless compression, color palettes, streaming formats, and CODECs
- Explain and compare the inter-operability of formats

Student Evaluation

Grading Scheme

Assignments	15 %
Class Project	10 %
Midterm Exam	15 %
Final Exam	60 %
Total	100%

Assignments: 4 assignments covering HTML, CSS, Javascript, and design issues

Project and milestones: integrating technology and design; to be done in teams.

Criteria that must be met to Pass

Completion of assignments and projects.

Attendance Expectation

Students are expected to attend classes 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

- Connolly R., Hoar, R. *Fundamentals of Web Development*, Pearson (2014)

Recommended Text

- Douglas K. van Duyne, James A. Landay, Jason I. Hong. **The Design of Sites: Patterns for Creating Winning Web Sites (2nd Edition)**. Prentice-Hall, 2007.

Recommended Sources

- A good source of information and instruction on HTML, CSS, and Javascript is the W3Schools website, accessible at <http://www.w3schools.com/>

Proposed Lecture Schedule

The class has been modified. Every effort will be made to follow the schedule, but it is difficult to predict to the day.

Week	Major Items	Topics	Reference
Sept 3		<ul style="list-style-type: none"> • Introduction to the WWW 	Ch 1
Sept 8		<ul style="list-style-type: none"> • Intro to HTML <ul style="list-style-type: none"> ○ Markup ○ HTML history ○ Request Response 	Ch 2
Sept 15	Assignment 1	<ul style="list-style-type: none"> • Detailed HTML <ul style="list-style-type: none"> ○ Tags ○ Attributes 	Ch 2
Sept 22		<ul style="list-style-type: none"> • Intro to CSS <ul style="list-style-type: none"> ○ Including CSS ○ Basic CSS examples ○ Attributes 	Ch 3
Sept 29	Assignment 2	<ul style="list-style-type: none"> • Intro to CSS <ul style="list-style-type: none"> ○ CSS Selectors ○ Box Model 	Ch 3
Oct 6		<ul style="list-style-type: none"> • HTML Tables 	Ch 4
Oct 13	Thanksgiving holiday		
Oct 15	Midterm	<ul style="list-style-type: none"> • HTML Forms , Midterm 	Ch. 4
Oct 20	Assignment 3	<ul style="list-style-type: none"> • JavaScript 	Ch 6
Oct 27		<ul style="list-style-type: none"> • JavaScript 	Ch 6
Nov 3	Assignment 4	<ul style="list-style-type: none"> • Advanced CSS <ul style="list-style-type: none"> ○ Floating Layouts 	Ch 5
Nov 10	Fall Midterm Break		
Nov 17		<ul style="list-style-type: none"> • Advanced CSS <ul style="list-style-type: none"> ○ Responsive Design ○ Frameworks 	Ch 5
Nov 24		<ul style="list-style-type: none"> • Web Media <ul style="list-style-type: none"> ○ Color Models ○ Image Formats ○ HTML5 Canvas 	Ch 7
Dec 1	Class Project	<ul style="list-style-type: none"> • Various topics and review 	

Course Overview

- Labs will offer the student a combination of short exercises as well as opportunities to work on assignments and term projects.
- The course will give the student a high-level understanding of the architecture of the Internet, and of

the design and delivery of content, primary from the client side (the activity that occurs on the client/user's computer), but to some extent from the server side as well

- The student will gain a deeper understand of the nature of interactivity on the Internet – certain responses are delivered on the user machine, others require access to web resources.
- Students should be able to sophisticated software tools like Wordpress for the purpose of customization. Such tools generally prevent or discourage the users from changing the internals, but they nonetheless often require that the user have an understanding of things such as CSS, which the user embeds in appropriate parts of the installation, rather than modifying the installation, so that the product remains robust as updates happen.
- The student will gain experience working with a team.

Policies

Late Assignments

Assignments submitted after the due date are subject to a 25% penalty. Please note late assignments delay posting of solutions.

Missed Assignments

By arrangement with the instructor.

Missed Examinations

1. "Students who have missed an exam or assignment must contact their instructor as soon as possible. Arrangements to make up the exam may be arranged with the instructor. Missed exams throughout the year are left up to the discretion of the instructor if a student may make up the exam or write at a different time. If a student knows prior to the exam that she/he will not be able to attend, they should let the instructor know before the exam."
2. "Final exams - a student who is absent from a final examination through no fault of his or her own, for medical or other valid reasons, may apply to the College of Arts and Science Dean's office. The application must be made within three days of the missed examination along with supporting documentary evidence. Deferred exams are written during the February mid-term break for Term 1 courses and in early June for Term 2 and full year courses." (2007/08. <http://www.arts.usask.ca/students/transition/tips.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 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 course which factors in the incomplete course work as a zero, along with a grade comment of INF (Incomplete Failure) if a failing grade. In the case where the instructor has indicated in the course outline that failure to complete the required course work will result in failure in the course, and the student has a computed passing percentile grade, 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 computed final percentage grade. The grade change will replace the previous grade and any grade comment of INF (Incomplete Failure) will be removed.



For provisions governing examinations and grading, students are referred to the University Council Regulations on Examinations section of the Calendar.

(2011 University of Saskatchewan Calendar/Academic Courses Policy)

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/university_secretary/honesty/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/university_secretary/honesty/StudentNon-AcademicMisconduct2012.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/university_secretary/pdf/dishonesty_info_sheet.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://www.students.usask.ca/disability/>, 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.