Course Outline

(75 hrs) 2-3-6

420-W10-SU
Web Programming 1
AEC Website Integration
AEC Programming and Internet Technologies

Competencies

Website Integration
       017A - Install an application
       Course required to achieve these competencies:
       P88

Programming and Internet Technologies
       0176 – Make functional improvements to an application
       Course required to achieve these competencies :
       P80
       P88

General Objectives

Learn advanced HTML5 features to to improve ergonomics and management of a website and its components.

Integrate advanced HTML5 and CSS3 features into a website.

Understand the fundamental principles behind website referencing (SEO) in order to apply them to a website to increase website traffic and increase visibility.

This a course is structured to maximize the development of student autonomy. Autonomy is necessary in web design, as new technologies are always being introduced. By the end of this course, a student should be able to :

- Create interactive, adaptive, and ergonomic websites.
- Apply the basic rules of ergonomics

Specific Objectives

- Understand HTML5 tags and features
- Structure of a web page with HTML5
- Learn new ways to access elements with CSS3

- Improved formatting of an HTML document with new CSS3 properties
- Develop websites for computers and mobile devices

Detailed Contents

Module 1 – HTML5
- Structure of a document (revisions and new additions)
- Semantic elements (revisions and new additions)
- Elements, Attributes, and Form Validation

Module 2 – CSS3
- Selectors and pseudo-classes (revisions and new additions)
- Webfonts (google fonts, @font-face) and units
- Graphic and decorative styles
- Layout (revisions: alignment, centre,
- Layout (revisions: align, centre, overlay items, manage overflows)
- Flexbox
- Cross-browser compatibility

Module 3 - Mobile Website Design
- Mobile web development considerations
- Viewport, Media Queries, and Breakpoints
- Adapt a website's desktop version to be a mobile version
- The Mobile First design approach
- Using an adaptive grid
- Responsive images

Module 4 – New Additions
- Animations: transformations, transitions, @keyframes
- Rich media (video, audio)

Formal Evaluation

Exercises and Labs

Evaluation Breakdown

Modality	Weighting	Due Date
TP: creating a responsive website	25 %	End of course
Exercises	10 %	As we go
Quiz 1	15 %	TBD
Quiz 2	15%	TBD
Quiz 3	15%	TBD
Theoretical final exam	20 %	Last Class

* It is mandatory to obtain at least 50% of the exams so that the practical work is evaluated. The practical work will have to be complete in teams of maximally 2 students. In order for the final exam score to be considered, the practical work must be submitted before the final exam.

Documents used :

Course documents

References :

- CSS avancée - Vers HTML5 et CSS3 (Eyrolles, 2011)
- HTML5 pour les Web Designers (Eyrolles, 2010)
- Ergonomie Web pour des sites Web efficaces, Amélie Boucher, editor Eyrolles

Reference sites :

- *http://www.alsacreations.com/*
- *http://www.css3.info/*
- *http://css3pie.com/*
- *http://html5demos.com/*
- *http://www.html5rocks.com/*
- *http://www.w3qc.org/*
- *http://openweb.eu.org/*
- *http://www.yoyodesign.org/doc/w3c/css2/cover.html*
- *http://www.yoyodesign.org/doc/w3c/mobile-bp/*
- *http://www.w3.org/*
- *http://www.w3schools.com/*
- *http://www.developer.com*

- *http://www.commentcamarche.com/*
- *http://www.openclassroom.fr/*
- *Google Webmaster Tools*
- *https://support.google.com/webmasters/*
- *https://support.google.com/webmasters/answer/35769?hl=fr*
- *http://www.webrankinfo.com/dossiers/strategies-de-liens/tutoriel-redirections*
- *http://htaccess-guide.com*
- *http://microformats.org/*
- *http://schema.org*
- *https://developers.google.com*
- *http://www.miss-seo-girl.com*
- *http://www.supref.fr*
- *https://support.google.com/*
- *https://www.google.fr/adwords*
- *http://ludismedia.com/12-regles-ergonomie-web/*

STANDARDS OF L'INSTITUT SUPÉRIEUR D'INFORMATIQUE

With the aim of ensuring a high quality of education and maintaining the smooth operation of our facilities, the following rules are applied:

ABSENCES AND LATENESS:

If you miss more than 15% of class time for a course, you will expose yourself to a failing grade for the course, without the right to take a supplemental examination.

If you are absent on the day of an examination, you will receive 0% for this examination. Only the directors can authorize you to retake the examination on another day. A doctor's note is not necessarily a sufficient justification. Each case will be assessed on its own merits and a minimum fee of $25 will be applied.

If you are late to class, you may be refused access to the class until the break.

EXAMINATIONS:

For courses involving practical projects and examinations, you must achieve at least 50% on the examinations in order for the practical projects to be graded.

The corrected examinations will be temporarily handed back to the students for consultation, and subsequently collected again by the instructor for archiving.

During examinations:

- It is forbidden to leave the classroom under any circumstances. If a student leaves the classroom, they must hand in their examination to the instructor, who will consider their examination to be finished.

- No documents, bags, or briefcases can be on the desks. Each student must be sure to clear their desk before the beginning of the examination. The instructor will ensure the application of this standard.

- The use of electronic devices, cell phones, or other devices is forbidden. Any violation of this standard will result in the immediate termination of the examination for the student.

PRACTICAL PROJECTS:

The practical projects must necessarily be done in teams of 2 or 3 people. A minimum of 5 hours could be added to the course hours for the practical projects; attendance during these periods is mandatory. In order for the final examination grade to be considered, the practical projects must be submitted before the final examination. The practical projects will be presented to the group by the instructor during the period following the examination.

GRADE REVIEW:

As specified in our PIEA (Politique institutionnelle d'évaluation des apprentissages), approved by the MEES (Ministère de l'Éducation et de l'Enseignement supérieur), if you wish to have a grade reviewed, you must submit a grade review request to the directors within ten (10) working days after

the grades are submitted to the students or posted on the school's intranet.

SUPPLEMENTAL EXAMINATIONS:

You will be entitled to a supplemental examination for a course only if:

a) you achieved a grade of at least 45% on all of the evaluations for the course,

b) you were absent for less than 20% of the class time for the course,

c) you submitted all examinations and practical projects for the course,

d) you pay a minimum fee of $25.

If these four conditions are not met, you will need to retake the course.

A supplemental examination replaces the regular examinations for the course. A grade of at least 50% must be obtained on the supplemental examination in order for the practical project to be considered.

Following a supplemental examination, the maximum final grade for the course will be 60%.

PREREQUISITES:

In order to have access to the final projects and internships, you must have successfully completed all of the courses in the program. Tuition fees must be fully paid before the internships.

WITHDRAWAL:

In order to withdraw from courses, a written withdrawal request must be submitted to the admissions office. The withdrawal will take effect on the date that the request is received. If the request is received within the first ten(10) working days of a semester, the courses for this semester will be cancelled in your transcript (but not the tuition fees); furthermore, you will receive no financial assistance and no failing grades for the semester. However, after this period, you will receive financial assistance for the semester, if applicable, and your transcript will display the grades accumulated up until the date of withdrawal.

FOOD:

It is strictly forbidden to drink, eat, or smoke outside of areas specifically reserved for these activities.

CELL PHONES AND LAPTOPS:

It is required to turn off your cell phone when you enter the college. It is forbidden to bring your own personal laptop to the college.