

WEB SITE DESIGN

Summer in Prague, Prague, Czech Republic

Suggested US semester credit hours: 4

Contact hours: 60

Delivery method: Face to Face

IFSA course code: CME280-11

Course length: Summer

Possible cross-listings: Website Management, Multimedia Design and Authoring

COURSE DESCRIPTION

The process of website design is covered fully in this course – from identification of need, design, implementation, testing, to maintenance and review. Learners will begin this course by evaluating existing websites, in the context of cross-platforms, range of browsers, and design features. Given the ever-evolving business and technology environment, it is important that learners do not just develop skills in specific techniques but are also able to select when and where they are most appropriate, basing this decision on client and user needs, accessibility, and legislation and guidelines.

LEARNING OBJECTIVES

1. Analyze the impact and influence which the macro environment has on an organization and its business strategies.
2. Assess an organization's internal environment and capabilities.
3. Evaluate and apply the outcomes of an analysis using Porter's Five Forces model to a given market sector.
4. Apply models, theories and concepts to assist with the understanding and interpretation of strategic directions available to an organization.
5. Become familiar with resources available for further research on website design.
6. Make cognitive connections between learning in this course and other learning experiences in the IFSA Summer in Prague program.

PREREQUISITE KNOWLEDGE

1. Ability to use syntactical rules in an unfamiliar context
2. Basic knowledge and experience of any programming language is an advantage

ESTIMATED COURSE SCHEDULE

Summer (3 weeks)	
1	<p>Understand basic principles of web design, user experience and user interface design</p> <p>A simple design is an effective design. Complexity is just not something that a visitor wants to see on your web page, and one of the most important aspects of a simple design is the use space, color, layout and typography, combined with well-designed page structure and content.</p> <ul style="list-style-type: none">• Understand the importance of clean and simple page structure• Understand web typography• Have a solid understanding of good vs bad design practices• UX and UI Design vs. Web Design: What's the Difference and Why Should You Care?• Web Design Trends 2016
1	<p>Be able to apply appropriate semantic markup in HTML5</p> <p>HTML is where the magic of web page design begins. It isn't presentational — that's what CSS is for — HyperText Markup Language is a simple, elegant way to structure content.</p> <ul style="list-style-type: none">• HTML5 syntax and semantics• Be able to create required HTML page structure• Tag nesting!• Understand block vs inline tags• Have a good knowledge of the core set of HTML tags• Understand document semantics
2	<p>Be able to use CSS3 to apply visual styling</p> <p>CSS stands for Cascading Style Sheets. CSS is used to apply typography, color and layout to a HTML document. CSS3 is the latest evolution of the Cascading Style Sheets language and aims at extending CSS2.1. It brings a lot of long-awaited novelties, like rounded corners, shadows, gradients, transitions or animations, as well as new layouts like multi-columns, flexible box or grid layouts.</p> <ul style="list-style-type: none">• CSS Tutorial• CSS3 Introduction• HTML Dog CSS Tutorials• CSS Selector Reference• Where does CSS go?• CSS Syntax: braces, colons, semicolons, quotation marks, courses• CSS Fonts Stack

	<ul style="list-style-type: none"> • Colors: hex, rgb, rgba • The box model
2	<p>Use CSS3 and the FLEX system to construct responsive layouts</p> <p>Flex Box system is a CSS3 component for building flexible, responsive layouts. Unlike the older use of float:left and float:right, flexbox can be easily configured to meet any layout requirement.</p> <ul style="list-style-type: none"> • A complete guide to flexbox • CSS3 Flexbox • Using CSS3 Flexible Boxes • Visual Guide for CSS3 Flexbox • CodePen Flexbox Playground • Visual Flexbox Builder • Flexy Boxes • What is a flex container and flex item • How to arrange flex items in a row • How to arrange flex items in a column • How to size flex items • How to distribute free space between flex items
2	<p>Use CSS3 to apply advanced visual effects</p> <p>CSS3 includes advanced features like 2D and 3D element property transition and keyframe animation.</p> <ul style="list-style-type: none"> • CSS hover selector • CSS3 Transition • CSS3 Transform Property • CSS3 Animations • CSS3 Hover Effects Collection • CSS3 Animation Tutorial • CSS pseudo-class selectors • Transitions • Transforms • CSS Animation
2	<p>Use jQuery to apply special effects like smooth scroll, waypoints and custom animations</p> <p>jQuery is a fast, small, and feature-rich JavaScript library. It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers. With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript.</p> <ul style="list-style-type: none"> • jQuery • JavaScript Tutorial • jQuery Tutorial • jQuery Learning Center • Waypoints • Smooth Scroll • How to link jQuery into HTML document • What is \$(document).ready(); • How to detect a click on an object. • How to install and use a jQuery plugin like SmoothScroll

3	<p>Use Google maps JavaScript API to create a custom map</p> <p>Google Maps JavaScript API let's you embed maps inside your web page. You can add icons, information bubbles, custom layers, paths and interact with the the map using JavaScript.</p> <ul style="list-style-type: none"> • Google Maps JavaScript API • Getting Started with Google Maps • Google Maps Tutorial • How to import Google maps JavaScript API into your HTML document • How to place a custom map (coordinates, zoom) into a DIV • How to place an icon on a map • How to create a custom information box
3	<p>Optimise bitmap images for use on the web</p> <p>Images often account for most of the downloaded bytes on a web page and also often occupy a significant amount of visual space. As a result, optimizing images can often yield some of the largest byte savings and performance improvements for your website: the fewer bytes the browser has to download, the less competition there is for the client's bandwidth and the faster the browser can download and render useful content on the screen.</p> <ul style="list-style-type: none"> • Image Optimisation • 10 Must Know Image Optimization Tips • Optimizing Images in Photoshop • What is jpg, gif, png8 and png24 • How to crop images • How to choose the correct export format • How to save images for web
3	<p>Be able to select and use Google web fonts</p> <p>Standard web safe font stack allows only the use of fonts already installed on end users machine. Google web fonts provides around 800 additional web font families.</p> <ul style="list-style-type: none"> • Google Web Fonts • Getting started with Google Web Fonts API • How to select Google font family • How to choose specific Google font typefaces (bold, italic, light ...) • How to import Google font using browser tag • How to import Google font using an CSS @import • Adding and removing font families by editing the import url
3	<p>Use SVG icons and graphics</p> <p>Scalable Vector Graphics (SVG) is an XML-based vector image format for two-dimensional graphics with support for interactivity and animation. SVG graphics can be embedded in an HTML document and controlled using CSS and JavaScript</p> <ul style="list-style-type: none"> • SVG Tutorial • The Ultimate Guide to SVG • Everything You Need To Know About SVG • Tips for Creating and Exporting Better SVGs for the Web • Styling SVG Content • Styling And Animating SVGs With CSS • IcoMoon - Free SVG Icons

	<ul style="list-style-type: none"> • What is an SVG and how is it different from other image formats • How to place an SVG graphic into your page using an img tag • How to get SVG icons from icomoon.io • How to change a color and size of an SVG icon using CSS on hover
3	<p>Test and review interactive websites</p> <p>Provide functionality testing, review content and check user requirements and acceptance. Audit trail of changes. Plan and perform browser compatibility, platform and script- language testing. Plan and evaluate tests.</p> <ul style="list-style-type: none"> • User environments, links and navigation • User requirements and acceptance • Testing functionality against requirements • Error detection and messages • Test plans and results • Programmer and user guidance

EVALUATION METHODS

1. Individual Presentation
2. Creation of a website
3. Technical Report

RELATED ACTIVITIES

In delivering this course, we collaborate with a wide range of employers from our industry network to ensure that the course contents meet the needs and expectations of commerce, finance and industry requirements. We also work closely with the relevant professional bodies, to ensure alignment with recognized professional standards. There is continuous emphasis on employer engagement and work readiness so that students appreciate that the case study approach adopted while delivering the course is integrated into the processes of real organizations. To this extent, there is an arrangement of guest speakers and workshops that are held during the delivery of the course where industry professionals deliver to students their experience and integrate this with the course contents. Visits to relevant organizations may also be arranged so that students appreciate the complexity of real organizations and appreciate the nature of complex integrated processes taking place within such organizations.

TIMELY SUBMISSIONS

Assignments submitted after the deadline will be accepted at the discretion of the course instructor and generally only in the event of a documented illness or emergency.

ACADEMIC INTEGRITY

Any academic endeavor must be based upon a foundation of honesty and integrity. Students are expected to abide by principles of academic integrity and must be willing to bear individual

responsibility for their work while studying abroad. Any academic work (written or otherwise) submitted to fulfill an academic requirement must represent a student's original work. Any act of academic misconduct, such as cheating, fabrication, forgery, plagiarism, or facilitating academic dishonesty, will subject a student to disciplinary action.

IFSA-Butler takes academic integrity very seriously. Students must not accept outside assistance without permission from the instructor. Additionally, students must document all sources according to the instructions of the professor. Should your instructor suspect you of plagiarism, cheating, or other forms of academic dishonesty, you may receive a failing grade for the course and disciplinary action may result. The incident will be reported to the IFSA-Butler resident director as well as your home institution.