



Course Code MBA-733	Course Title Web Design & Development	ECTS Credits 7.5
Department School of Business	Semester Fall, Spring, Summer	Prerequisites None
Type of Course Elective	Field MIS	Language of Instruction English
Level of Course 2 nd Cycle	Year of Study 1 st or 2 nd	Lecturer(s) Dr Despo Ktoridou
Mode of Delivery face-to-face	Work Placement N/A	Co-requisites None

Objectives of the Course:

This course aims to provide an understanding of the business aspects of Web Sites Design, the fundamentals of Usability Engineering and explore best practices, possibilities and implementations. A structural approach to the development of Customer Centered Web sites will be presented. Future CIOs will be exposed to real world cases that illustrate the challenges they face in the real world.

The main objectives of the course are to:

- Examine the design factors and development process of an effective e-business website
- Cover the fundamental issues of usability engineering and explore best practices, possibilities and implementations.
- Concentrate on a structural approach to the development of Customer Centered Web sites by unifying design, usability and marketing
- Address principles, processes and patterns in the practice of a customer centered web site design and evaluation.
- Concentrate on design and development of a Customer Centered web site using DotNetNUKE-- the most widely adopted open source framework for website content management and web application development on Microsoft ASP.NET.
(pragmatic issues on mobile web, mobile screen sizing, mobile input controls, location-based services will be introduced)

Learning Outcomes:

Upon completion of this course students are expected to be able to:

1. **analyze the design factors and development process of an effective e-business website:** students should be able to integrate in every stage of the web site design the principles and techniques of a customer centered design that is reproductive and can be improved over time.
2. **apply design, usability and marketing:** Students should be able to develop sites in an ever more competitive environment by moving beyond the traditional boundaries of usability, market research and software design.
3. **run usability evaluations:** Students should have the experience of running usability tests to identify areas where users struggle with the site and make recommendations for improvement.
4. **use principles, processes and patterns to apply Customer-Centered design:** Students should be able to know what is behind a customer-centered design and how to apply it to their projects using the principles, processes and patterns.
5. **design, develop, implement and evaluate a Customer Centered web site using DOTNETNUKE framework:** Students will acquire the necessary knowledge and skills to develop a web site using the open source content management framework DOTNETNUKE.
6. **discuss pragmatic issues on mobile web, mobile screen sizing, mobile input controls, location-based services.** Students will comprehend the near-term research as well as pragmatic issues in preparing their web sites for the mobile web.

Course Contents:

1. **Foundations of Web Site Design: The World Wide Web is no longer a novelty.** To many companies and organizations, the web is a necessity, the foundation of their businesses. User friendly designs enable web site visitors to find information and complete tasks can easily mean the difference between profit and loss. A customer-centered design is no longer a luxury adopted by forward-thinking companies with a special interest in customer satisfaction. In this chapter students will discover the thinking behind customer centered design and learn how to apply it to their projects using the principles, processes and patterns that are presented;
2. **Site Genres:** Web sites are categorized into types – genres as each genre has its own content needs and audience. A framework to construct many different kinds of sites is provided.
3. **Usability, Heuristic Evaluation:** "[Usability refers to] the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of user." - ISO 9241-11. *Usability testing* - fits in as one part of the customer-centered design process. An online heuristic evaluation test is given to students to evaluate their in-development web sites. The two types of usability metrics that can be captured during a usability test – performance and preference data - are introduced.

4. **Creating a Navigation Framework:** One of the challenges of designing for the web is that customers can come to a site in many different ways and their goals and tasks often vary widely. One of the keys to a satisfying customer experience is a web site's ability to support these differences. This section will help students maximize their site's flexibility to accommodate customer's different navigation, browsing and search habits.
5. **Creating a Powerful Home Page;** The home page is the most visited page on any web site and it's design deserves serious attention so as it can accommodate the rich diversity of customers and their needs. This section introduces ways to design powerful homepage to fit the needs of the customers
6. **Introduction to DotNetNuke 4.0:** DotNetNuke is a development framework that enables businesses to quickly build and deploy feature-rich, dynamic, interactive websites and applications in Microsoft environments. DotNetNuke is the world's most widely adopted framework for building websites and web applications on Microsoft ASP.NET. Available in Professional and Community Editions, DotNetNuke provides simple, browser-based tools that make it easy for MBA students to build, deploy, and manage all aspects of an interactive website or application, including content, layout, membership, features, functionality, site hosting, and security.

This section will cover **DotNetNuke Essentials** - an introduction to the DotNetNuke framework, an intensive overview of DotNetNuke from the perspectives of a website administrator, developer and designer; **Module Development** – will give students a strong foundation for DotNetNuke module development and begin to leverage the power of DotNetNuke as a web development platform. Upon completion of this class, attendees will have developed and packaged their own DNN module; **Skinning** – the goal here is to impart a solid understanding of all things skinning. This class will explain how the skinning engine works, review the installation and implementation of skins, and dissect the anatomy skins and skin packages. Skinning Essentials combines portal administration functions with core skinning concepts to prepare attendees for skin development or maintenance of purchased commercial skins; **Portal Administrator** – this session dives deeper into the core concepts necessary to effectively administer DotNetNuke. Upon completion of this course, attendees will have a thorough understanding of the various tools included in the DNN framework. By evaluating the administrative functions available to both admins and hosts, attendees should have a firm grasp on portal administration in DNN upon the completion of this class. (**this session's material will be given to students through hands-on laboratorial sessions during the course**)
7. **Writing and managing content:** In the web site design two of the big issues to sort out are how to manage large amounts of content and how to make it presentable to all kind of visitors. An overview on how to help students create and manage their content effectively is presented.

8. **Building Trust and Credibility:** Trust and Credibility are essential to establishing a relationship with the customers. An overview on issues related to trust and credibility are presented and analyzed.
9. **E-Commerce:** The ability to find and buy products online is one of the most compelling reasons to use the web but for customers to successful using a web site the design must have clean simple interfaces and support for common tasks. This section discusses and analyzes how to create the best possible customer experience on e-commerce web site.
10. **Helping Customers Complete Tasks:** Sometimes customer may need help in carrying out and completing tasks on a web site. A description of ways to structure a site to minimize problems the task completion rate is the objective of this session.
11. **Designing Effective Page Layouts:** It can be difficult to design structured, ordered layouts for web pages. Here students will understand how to create layouts that their customers will find clear, predictable and easy to understand.
12. **Making Site Search Fast and Relevant:** Search is an essential feature of most web sites. This section introduces ways and techniques on how to design the interaction so that the customer's searches are more effective.
13. **Making Navigation Easy:** Navigation is an integral part of every web site but customers cannot always find links and do not always know where links will take them. Several well-known techniques for organizing and displaying navigation elements making them easy to find and understandable are presented in this section.
14. **Speeding-up Your Web Site:** Slow web sites often frustrate customers and force them to leave the site. Here ways to make a web site look and feel fast are presented.
15. **The Mobile Web:** An increasing number of people are starting to access the web from mobile devices. A near-term research as well as pragmatic issues in preparing the web site for the mobile web are described here.

Learning Activities and Teaching Methods:

- Faculty Lectures, Web Site Professionals guest case studies presentations
- Case studies
- Hands-on Laboratorial work
- Discussion of best practices

Assessment Methods:

Mid-Term Exam, Final Exam, Project, Hands-on Laboratorial work.

Required Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Douglas K. Van Dwyne, James A. Landay, Jason I. Hong	Design of Sites, The: Patterns for Creating Winning Web Sites, 2/E	Prentice Hall	2007	0-13-134555-9

Recommended Textbooks/Reading:

Authors	Title	Publisher	Year	ISBN
Shawn Walker	Professional DotNetNuke ASP.NET Portals	Wrox	2006	0471788163
J. Nielsen	Designing Web Usability	New Riders	2000	1-56205-810-X
J. Nielsen, M. Tahir,	Homepage Usability: 50 Websites Deconstructed	New Riders	2001	0-7357-1102-X 0471788163