

IT 240 Web Fluency (new course)

Course Description

This course develop an in-depth understanding of how the web works from a technical standpoint, meaning how dynamic pages are created and delivered by web servers, and then used by browsers and other clients. Students demonstrate this understanding by achieving competency by using a current integrated development environment (IDE) to develop web applications.

1. INSTRUCTOR.

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Office Hours:
Tue/Thu 10:00-11:00 AM
Mon/Wed 2:00-3:00 PM
Or by appointment

2. COURSE TEXT AND MATERIALS.

Liberty, J. *Programming ASP.NET*, Third Edition, O'Reilly Media, 2005, ISBN 978-1600330735.

There will also be a series of Web based readings especially at the start of the course.

3. LEARNING OBJECTIVES.

A primary objective of this course are to develop your understanding of how the web works from a technical standpoint, meaning how dynamic pages are created and delivered by web servers, and then used by browsers and other clients. Another primary objective is for you to demonstrate this understanding by achieving competency by using a current integrated development environment (IDE) to develop web applications. More specifically, the learning objectives of this course are to enable the student:

- To understand how dynamic web pages are formulated and served, and the underpinnings of how these work, including transport and application protocols,
- To understand the capabilities and limitations of these technologies,
- To demonstrate these understandings through developing competence and capability by developing and implementing several small but realistic web-based applications,
- To have a basic understanding how web-enabled databases are designed, implemented, and accessed,
- To gain competence in utilizing a current development platform for web applications, such as ASP.NET,
- To have an understanding of emerging web trends and technologies.

4. COURSE FORMAT AND EVALUATION.

This is a hands-on demanding course involving a series of individual projects and a presentation along with exams. The final evaluation will be based on a weighted combination of projects, exams, and class participation as follows:

Item	Weight
Mid-term exam	20%
Projects/assignments	30%
Final project and presentation	15%
Final exam	25%
Participation	10%

5. ADMINISTRATIVE NOTES.

This is a placeholder for statements on course policies, academic integrity, disabilities, etc.

6. COMPUTER ACCESS AND RESOURCES.

Visual Studio.NET 2005 is required for this course, and is available in the labs. You may wish to download and install the express edition which is available free from Microsoft at <http://msdn.microsoft.com/vstudio/express/>.

7. SCHEDULE, TOPICS AND COMPETENCIES.

Week	Topics and Competencies	Readings
1	Introduction, HTML basics	-
2	HTML user interfaces and CSS	Web readings
3	Forms, post-backs, query strings, cookies, hidden fields	Web readings
4	Javascript, user input validation	Web readings
5	Javascript, DOM	Web readings
6	Visual Studio .NET development environment, page rendering	Liberty: Chapter 2
7	Basic web controls, post-backs, event processing	Liberty: Chapters 3 and 4
8	Advanced web controls, web component controls	Liberty: Chapter 5
9	Code behind, directives, state	Liberty: Chapter 6
9	Code behind, directives, state management	Liberty: Chapter 6
10	Input validation, regular expressions	Liberty: Chapter 8

12	Customization, personalization, web parts	Liberty: Chapter 13
13	AJAX	Web readings
14	ADO and database access	Liberty: Chapters 9 and 10
15	Creating and consuming web services	Liberty: Chapters 15 and 16