

### Master Course Record Form

<b>Course Prefix and Number:</b> IT 233
<b>Course Title:</b> Introduction to Web Programming
<b>Recommended Transcript Title:</b> Introduction to Web Programming
<b>Date Approved/Revised:</b>
<b>Credit Hours:</b> 3 <b>Contact hours per week (Based on 15 week term):</b> <b>Lecture:</b> 3 <b>Lab:</b>
<b>Prerequisite:</b> CIS 133 or Permission of the Division Chair <b>Corequisite:</b> <b>Pre/Corequisite:</b>
<b>Grading Mode:</b> Letter grade
<b>Catalog Description:</b> This course presents students with an introduction to web programming technologies. Topics covered include basics of data objects, data binding, data source methods and calls, trouble shooting, debugging, developing and deploying web applications, configuration files, controls, events, XHTML, XML, RSS, ASP, CSS, PHP, MySQL, JavaScript and Ajax.
<b>Course Outcomes:</b>  <ol style="list-style-type: none"> <li>1. Demonstrate ability to create an Interactive Web Page including:</li> <li>2. Demonstrate ability to work with XML, Data Objects, and WCF including:</li> <li>3. Demonstrate ability to create and modify Client-Side Scripting including:</li> <li>4. Demonstrate ability to troubleshooting and debugging web applications including:</li> <li>5. Demonstrate ability to configure and deploy web applications including:</li> <li>6. Develop PHP scripts for server side, processing web form data, interacting with data files, databases, and arrays</li> <li>7. Apply RSS to syndicate website content, such as news article, blog entries and podcasts</li> </ol>
<b>Implementation Cycle:</b> Fall
<b>Role in College Curriculum:</b> <b>Role in College Curriculum: (Check all that apply)</b> <input type="checkbox"/> <b>General Education Core (Specify category)</b> <input type="checkbox"/> <b>Technical Core (Specify Program)</b> <input checked="" type="checkbox"/> <b>Restricted Elective (Restricted Programming Elective for AAS in IT, Restricted IT Elective for AAS in IT and Restricted IT Elective for CAS in IT)</b> <input checked="" type="checkbox"/> <b>General Elective</b> <input type="checkbox"/> <b>Workforce Education</b> <input type="checkbox"/> <b>Other (Please specify)</b>
<b>Course Fee:</b> Yes

Course Number & Title: IT 233- Introduction to Web Programming  
Date Prepared: April 6, 2015  
Submitted to LOT:  
Date Course Approved by LOT: April 20, 2015

**Instructor's Qualifications:** Master's degree with 18 graduate hours in computers, or a Bachelor's degree in IT and two years of industry experience.

**Expanded Course Description:** It provides the student with the skills and knowledge necessary to take the Microsoft Technology Exam in Web Programming (98-363.)

Expanded course outcomes:

1. Demonstrate ability to create an Interactive Web Page including:

- Customize the layout and appearance of a web page
  - CSS; tables; embedding images; page layout for navigation
- Understand ASP.NET intrinsic objects
  - Request; Server; Application; Session; Response; HttpContext
- Understand state information in web applications
  - Understand how state is stored based on application design and hardware; understand different types such as session state, view state, control state, and application state
- Understand events and control page flow
  - Application and page life cycle events; page events; control events; application events; session events; cross-page posting; Response.Redirect; Server.Transfer; IsPostBack; setting AutoEventWireup
- Understand controls
  - Understanding various types of controls, including user, server, web, and validation controls; know which is the appropriate type of control for a scenario
- Understand configuration files
  - Understanding the usage of web.config and machine.config, and the settings that can be made

2. Demonstrate ability to work with XML, Data Objects, and WCF including:

- Read and write XML data
  - Understanding XML, XML validation
- Distinguish between DataSet and DataReader objects
  - The ability to choose the proper data object to use based on application requirements/design
- Call a service from a web page
  - Creating a basic WCF service or web service so that it can be consumed; App\_WebReferences; configuration
- Understand DataSource controls
  - LinqDataSource; ObjectDataSource; XmlDataSource; SqlDataSource

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- Bind controls to data by using data binding syntax
    - Ensure that data is updated and displayed in data-aware controls
  - Manage data connections and databases
    - Database connections; connection objects; connection pools; transaction objects
- 3. Demonstrate ability to create and modify Client-Side Scripting including:
  - Understand client-side scripting
    - Purpose of client-side scripting; various client-side scripting languages
  - Understand AJAX concepts
    - ASP.NET AJAX implementation; working with client-side libraries, EnablePartialRendering, Triggers, ChildrenAsTriggers, Scripts, Services, UpdateProgress, Timer, ScriptManagerProxy, extender controls
- 4. Demonstrate ability to troubleshooting and debugging web applications including:
  - Debug a web application
    - Use in conjunction with custom error pages to display appropriate error information to the appropriate user; implement tracing of a web application, Trace.axd, Trace=True on @Page directive
  - Handle web application errors
    - HTTP error codes
- 5. Demonstrate ability to configure and deploy web applications including:
  - Configure authentication and authorization
    - Forms authentication, Windows authentication; authorization; file authorization; impersonation
    - (Does not include: Windows CardSpace authentication, Passport (Windows Live ID) authentication, Custom authentication)
  - Configure projects, solutions, and reference assemblies
    - Local assemblies; shared assemblies (GAC); web application projects; solutions; configuration files; AppSettings
  - Publish web applications
    - Choosing the appropriate method to deploy an application based on existing or intended environment; updatable vs. not updateable; MSI deployment; Internet Information Server (IIS) installation and configuration
  - Understand application pools
    - Purpose of application pools; effect of application pools on web applications
    - Does not include: Configuring or assigning application pools
- 6. Develop PHP scripts for server side, processing web form data, interacting with data files,

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databases, and arrays  
Apply RSS to syndicate website content, such as news article, blog entries and podcasts

Prepared by: Vincenza Cumbo

September 11, 2014

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Signature, Title

Date

Approved by:

Dean, Academic & Student Services

Date

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