

## School of Computing and Information Sciences

**Course Title:** Website Construction and Management    **Date:** 10/19/2005

**Course Number:** CGS 4825

**Number of Credits:** 3

<b>Subject Area:</b> Application	<b>Subject Area Coordinator:</b> Nagarajan Prabakar <b>email:</b> prabakar@cis.fiu.edu
<b>Catalog Description:</b> The fundamentals of creating and maintaining a website. Installation and maintenance of a web-server. Techniques for building multimedia interactive web-pages.	
<b>Textbook:</b> No Textbook. Online notes is used.	
<b>Prerequisites Courses:</b> (COP 3804 or COP 3337) and CGS 3559	
<b>Corequisites Courses:</b> None	

Type: Required

Prerequisites Topics:

1. Master the design and implementation of classes using inheritance and polymorphism
2. Master the use and implementation of interfaces
3. Master analyzing problems and writing Java program solutions to those problems using the above features

Course Outcomes:

1. Master JSP
2. Master Servlets
3. Master Java Beans
4. Master Hibernate for Persistent Data
5. Master MVC
6. Master Client/Server Communication
7. Master the design of basic web pages
8. Be familiar with the use of CSS 1 style sheets
9. Be familiar with the configuration of the Apache Web Server

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**Outline**

<b>Topic</b>	<b>Number of Lecture Hours</b>	<b>Outcome</b>
Simple JSP <ol style="list-style-type: none"> <li>1. HTML - basic codes, anchors, paragraphs, and line breaks</li> <li>2. HTML Forms - form tag, text elements, submit and reset buttons.</li> <li>3. Using the Query String to pass data</li> <li>4. JSP - accessing parameters</li> <li>5. Initializing form elements</li> </ol>	3	1,7
Multiple JSP <ol style="list-style-type: none"> <li>1. Sending Data to Another JSP</li> <li>2. Sending Data Back using Hidden Fields</li> <li>3. Sending Data to Different Pages</li> <li>4. Using a Controller JSP</li> <li>5. Using a Servlet Controller</li> </ol>	4	1,2,6
Servlets and MVC <ol style="list-style-type: none"> <li>1. Using a Bean</li> <li>2. Validation by Using Default Values</li> <li>3. Validation by Informing the User by Using Hibernate Annotations</li> <li>4. Using Java Standard Tag Library to add Looping to a JSP</li> <li>5. Persist Data to a Database Server Using Hibernate</li> </ol>	6	1,2,3,4,5,6
Debugging Servlets <ol style="list-style-type: none"> <li>1. NetBeans</li> <li>2. Server Logs</li> </ol>	1	2,5
More HTML <ol style="list-style-type: none"> <li>1. Lists</li> <li>2. Tables</li> <li>3. Images</li> </ol>	1	7
More Form Elements <ol style="list-style-type: none"> <li>1. Radio Groups</li> <li>2. Checkboxes</li> <li>3. Select Lists</li> <li>4. Textareas</li> <li>5. Password</li> <li>6. Initializing Form Elements</li> </ol>	1	2,3,4,6,7
Cascading Style Sheets <ol style="list-style-type: none"> <li>1. Colors</li> <li>2. Text Attributes</li> <li>3. Fonts</li> <li>4. Margins</li> </ol>	2	6,7,8

5. Borders		
Cookies 1. Identify User 2. Retrieve and display User Data from a database	2	2,3,4,5,6
Sessions 1. Using a Session to pass data to JSPs 2. Shopping Cart	2	1,2,3,6
Request Headers, Response Headers, Status Codes 1. Distinguishing Browsers 2. Recognizing Browser Preferences: Accept, Accept Language, Accept Encoding 3. Content Type 4. Status Codes	3	2,6,7
Using CGI 1. Query String for GET Requests 2. Content Length for POST requests	2	2,6
MIME Types	1	6,7
Tomcat 1. Servlet Mapping 2. JDBC Connection Pooling 3. Contexts 4. Using Tomcat with Apache	2	2
Configuring a web server 1. Configuring and starting the Apache server 2. TCP/IP, IP addresses, Domain Names, MIME, Daemons 3. Creating a Web site on ocelot 4. Configuring the server with Tomcat 5. Access controls, Log files 6. Aliases, Scripting, Log Files, Connection Types, Negotiation, Indexes 7. SSI	6	9
Additional topics as time allows 1. Java Mail - Adding Email Notification to a web application 2. Model 1 Architectures Using Java a. PERL style applications b. Servlet Only c. Limitations of Servlets 3. PHP style applications a. JSP Only b. Limitations of JSPs.		

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**Course Outcomes Emphasized in Laboratory Projects / Assignments**

	<b>Outcome</b>	<b>Number of Weeks</b>
1	JSP Assignment Outcome: 1,7	2
2	Controller Assignment Outcomes: 1,2,5,6	2
3	Database Assignment Outcomes: 2,3,4,5,6,7,8	2
4	Server Assignment Outcome: 6,9	2
6	Final Assignment Outcomes: 1,2,3,4,5,6,8	2

**Oral and Written Communication**

No significant coverage

**Social and Ethical Implications of Computing Topics**

No significant coverage

**Theoretical Contents**

No significant coverage

**Problem Analysis Experiences**

No significant coverage

**Solution Design Experiences**

No significant coverage