MASTER SYLLABUS

CITA 310 – WEB SERVER ADMINISTRATION

Created by: Minhua Wang
Updated by: Minhua Wang
A. **TITLE:** Web Server Administration

B. **COURSE NUMBER:** CITA 310

C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

- # Credit Hours: 3
- # Lecture Hours: 2 per week
- # Lab Hours: 2 per week
- Other: per week

Course Length: 15 Weeks

D. **WRITING INTENSIVE COURSE:** No

E. **GER CATEGORY:** None

F. **SEMESTER(S) OFFERED:** Fall

G. **COURSE DESCRIPTION:** A comprehensive survey of all aspects of Web server administration. Students gain hands-on experience by actually installing and administering their own Web servers in a lab environment. Topics include: server installation and configuration, site planning, supporting dynamic content with CGI's and ASP's server maintenance and site security.

H. **PRE-REQUISITES/CO-REQUISITES:**

   a. Pre-requisite(s): CITA 220 Data Communications and Network Technology
   b. Co-requisite(s): none
   c. Pre- or co-requisite(s): none

I. **STUDENT LEARNING OUTCOMES:**

By the end of this course, the student will be able to:

<table>
<thead>
<tr>
<th>Course Student Learning Outcome [SLO]</th>
<th>PSLO</th>
<th>ISLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Manipulate the process of preparing, installing, configuring, and managing a standard Web server</td>
<td>3. Demonstrate a solid understanding of the methodologies and foundations of IT</td>
<td>5</td>
</tr>
<tr>
<td>b. Experiment various Web services to extend the web environment</td>
<td>3. Demonstrate a solid understanding of the methodologies and foundations of IT</td>
<td>5</td>
</tr>
<tr>
<td>c. Prepare and test a programming environment for the Web server</td>
<td>3. Demonstrate a solid understanding of the methodologies and foundations of IT</td>
<td>5</td>
</tr>
<tr>
<td>d. Demonstrate tools to be used to monitor and analyze the Web environment</td>
<td>3. Demonstrate a solid understanding of the methodologies and foundations of IT</td>
<td>5</td>
</tr>
<tr>
<td>e. Develop security applications for the Web environment</td>
<td>3. Demonstrate a solid understanding of the methodologies and foundations of IT</td>
<td>5</td>
</tr>
</tbody>
</table>
f. Compare different Web server versions in various operating system environments

3. Demonstrate a solid understanding of the methodologies and foundations of IT
4. Apply problem solving and troubleshooting skills

J. APPLIED LEARNING COMPONENT: Yes __X__  No ______
   • Classroom/Lab

K. TEXTS: None

L. REFERENCES: Various online resource such as SUNY Canton Library Books24x7 ITPro Book Database

M. EQUIPMENT: Computer lab classroom with virtual machine software installed

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:
   • Exams
   • Quizzes
   • Participation

P. DETAILED COURSE OUTLINE:

I. Basics of Server Administration
   A. The Basics of Server and Web Server Administration
   B. Preparing for Server Installation
   C. Installing the Server
   D. Name Resolution
   E. Managing a Server

II. Basics of Web Server Administration
   A. Configuring a Web Server
B. Installing and Testing a Programming Environment
C. Providing E-Mail Services

III. Web Environment Administration
   A. Extending the Web Environment
   B. Securing the Web Environment
   C. Monitoring and Analyzing the Web Environment

Q. LABORATORY OUTLINE:

I. Installing and Configuring Windows Server
II. Installing and Configuring Linux Server
III. Installing and Configuring DNS Server
IV. Installing and Configuring Apache Web Server
V. Installing and Configuring IIS Web Server

VI. Installing and Testing Web Server Programming Environment
VII. Installing and Testing Email Server
VII. Web Environment Administration