

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



MASTER SYLLABUS

CITA 420 - PROGRAMMING FOR THE WEB

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**CANINO SCHOOL OF ENGINEERING TECHNOLOGY
DECISION SYSTEMS
FALL 2018**

- A. **TITLE:** Programming for the Web
- B. **COURSE NUMBER:** CITA 420
- 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:** This is a course on programming languages and techniques for Web development. Topics include server side programming, creating dynamic, database driven content, and developing Web based client/server database applications.

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

- a. Pre-requisite(s): CITA 310 Web Server Administration and CITA 330 Emerging Information Technology Applications
- 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:

<u>Course Student Learning Outcome</u> <u>[SLO]</u>	<u>PSLO</u>	<u>ISLO</u>
a. Develop secure, dynamic Websites by integrating and implementing the PHP scripting language	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5
b. Develop Websites with the support of MySQL database system	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5
c. Assemble technologies that may be integrated with PHP and MySQL in order to deliver a complete e-commerce solution	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5
d. Experiment troubleshooting in PHP	3. Demonstrate a solid understanding of the methodologies and foundations of IT 4. Apply problem solving and troubleshooting skills	2[CA] 5
e. Experiment troubleshooting in MySQL	3. Demonstrate a solid understanding of the methodologies and foundations of IT	2[CA] 5

	4. Apply problem solving and troubleshooting skills	
f. Recognize various server-side Web programming frameworks	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5

J. **APPLIED LEARNING COMPONENT:** Yes X No _____
 • Classroom/Lab

K. % **TEXTS:** Welling, L., & Thomson, L. (2016). *PHP and MySQL Web Development, Fifth Edition*. Indianapolis, IN: Addison-Wesley Professional.

L. % **REFERENCES:** N/A

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. Using PHP and MySQL
 - A. PHP Crash Course
 - B. Storing and Retrieving Data
 - C. Using Arrays
 - D. String Manipulation and Regular Expressions
 - E. Reusing Code and Writing Functions
 - F. Object-Oriented PHP
 - G. Exception Handling

H. Using MySQL

II. Advanced PHP Techniques

- A. Implementing Authentication with PHP and MySQL
- B. Implementing Secure Transactions with PHP and MySQL
- C. Interacting with the File System and the Server
- D. Using Network and Protocol Functions
- E. Managing the Date and Time
- F. Using Session Control in PHP

III. Building Practical PHP and MySQL Projects

- A. Using PHP and MySQL for Large Projects
- B. Building User Authentication and Personalization
- C. Building a Shopping
- D. Building a Content Management System
- E. Building a Web-Based Email Service
- F. Building Web Forums

Q. **LABORATORY OUTLINE:**

I. Installing and Configuring Apache/PHP/MySQL

II. Using PHP to Store and Retrieve Data

III. Using MySQL to Store and Retrieve Data

IV. Implementing Advanced Techniques with PHP and MySQL

V. Building Practical PHP and MySQL Project