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

MASTER SYLLABUS

CITA 330 - EMERGING INFORMATION TECHNOLOGY APPLICATIONS

Created by: Minhua Wang
Updated by: Minhua Wang

CANINO SCHOOL OF ENGINEERING TECHNOLOGY
DECISION SYSTEMS
FALL 2018

A. **TITLE**: Emerging Information Technology Applications

B. **COURSE NUMBER:** CITA 330

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 emerging information technology applications. This course covers Web application development with XML, multimedia topics including graphics / audio / animation / video / presentations / desktop publishing / Web publishing, and input technologies including speech / handwriting recognition. The course also includes additional continuously updated topics on most current state-of-the-art IT applications.

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

a. Pre-requisite(s): Junior status in a 4-year program
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:

Course Student Learning Outcome [SLO]	***PSLO***	***ISLO***
a. Develop XML code to manipulate Web data	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5
b. Create XML DTD / schema and transformation to build simple XML-based language	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5
c. Compose XHTML and RSS documents	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5
d. Illustrate multimedia basics on graphics / audio / animation / video / presentations / desktop publishing / Web publishing	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5
e. Set up multimedia environment through selected software package	3. Demonstrate a solid understanding of the methodologies and foundations of IT	5

f. Exhibit examples of most current developments in IT applications	3. Demonstrate a solid understanding of the methodologies and foundations of IT 7. Recognize the needs for continuing professional development and life-long learning to adapt to an ever-changing technological environment	5

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

N. GRADING METHOD: A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:

- Exams
- Quizzes
- Participation

P. DETAILED COURSE OUTLINE:

I. XML
- A. XML Components
- B. XML Creation and Editing Software
- C. Creating Document Type Definitions
- D. Creating XML Schemas
- E. Creating XML Transformations
- F. Introduction to XHTML, VML, SMIL, and RSS

II. Multimedia
- A. Graphics

B. Audio, Animation, and Video
C. Presentation Systems
D. Desktop Publishing
E. Web Publishing

III. Input Technologies
A. Speech Recognition
B. Handwriting Recognition
C. Text to Speech and Translation Tools
D. Alternative Input Devices

Q. <u>LABORATORY OUTLINE</u>:

I. XML
A. XML Creation and Editing
B. Creating Document Type Definitions
C. Creating XML Schemas
D. Creating XML Transformations
E. XML Debugging
F. XHTML Creation
G. RSS Creation

II. Multimedia
A. Creating Graphics, Adding Text to Graphics, Creating Special Effects
B. Creating Animations, Working with Audio and Video
C. Working with Presentations, Creating Support Materials
D. Working with Desktop publishing Objects
E. Working with Web publishing Objects

III. Input Technologies
A. Speech Recognition in Microsoft Office
B. Handwriting Recognition in Microsoft Office
C. Text to Speech and Translation Tools