COURSE OUTLINE
CITA 330 - EMERGING INFORMATION TECHNOLOGY APPLICATIONS

Revised By: MINHUA WANG
A. **TITLE:** Emerging Information Technology Applications

B. **COURSE NUMBER:** CITA 330

C. **CREDIT HOURS:** 3

D. **WRITING INTENSIVE COURSE:** No

E. **COURSE LENGTH:** 15 weeks

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

G. **HOURS OF LECTURE, LABORATORY, RECITATION, TUTORIAL, ACTIVITY:**
   2 lecture hours and 2 laboratory hours per week

H. **CATALOGUE 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.

I. **PRE-REQUISITES/CO-REQUISITES:**
   a. Pre-requisite(s): Junior status in a 4-year program
   b. Co-requisite(s): none

J. **GOALS (STUDENT LEARNING OUTCOMES):**
   By the end of this course, the student will be able to:

<table>
<thead>
<tr>
<th>Course Objective</th>
<th>Institutional SLO</th>
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<tbody>
<tr>
<td>a. Develop XML code to manipulate Web data</td>
<td>2. Crit. Thinking</td>
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<td></td>
<td>3. Prof. Competence</td>
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<td>b. Create XML DTD / schema and transformation to build simple XML-based language</td>
<td>2. Crit. Thinking</td>
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<td>3. Prof. Competence</td>
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<td>c. Compose XHTML and RSS documents</td>
<td>2. Crit. Thinking</td>
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<td>3. Prof. Competence</td>
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<tr>
<td>d. Illustrate multimedia basics on graphics / audio / animation / video / presentations / desktop publishing / Web publishing</td>
<td>2. Crit. Thinking</td>
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<td>3. Prof. Competence</td>
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<td>e. Set up multimedia environment through selected software package</td>
<td>2. Crit. Thinking</td>
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<td></td>
<td>3. Prof. Competence</td>
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<td>f. Exhibit examples of most current developments in IT applications</td>
<td>1. Communication</td>
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<tr>
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<td>2. Crit. Thinking</td>
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<tr>
<td></td>
<td>3. Prof. Competence</td>
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K. **TEXTS:**

L. **REFERENCES:** N/A

M. **EQUIPMENT:** computer classroom

N. **GRADING METHOD:** A-F

O. **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. **LABORATORY OUTLINE:**

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