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

MASTER SYLLABUS

**CYBR/CITA204 – SYSTEM ANALYSIS AND
DESIGN**

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SCHOOL OF SCIENCE, HEALTH AND CRIMINAL JUSTICE
CENTER FOR CRIMINAL JUSTICE, INTELLIGENCE AND CYBERSECURITY
FALL 2022

A. TITLE: SYSTEMS ANALYSIS AND DESIGN

B. COURSE NUMBER: CYBR/CITA 204

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

Credit Hours: 3
Lecture Hours: 3 **per week**
Lab Hours: **per week**
    Other: **per week**

Course Length: 15 **Weeks**

D. WRITING INTENSIVE COURSE: Yes

E. GER CATEGORY: No

F. SEMESTER(S) OFFERED: Spring

G. COURSE DESCRIPTION: A course designed to guide the student through the evolution of a system, an analysis of the present flow of information and the specifications, selection and implementation of information processing systems. The scope of a system development study will transcend mere knowledge of specific systems to include a study of the total management system.

H. PRE-REQUISITES/CO-REQUISITES:

a. Pre-requisite(s): Database Applications and Concepts (CITA 215), or Introduction to Programming (CITA 180)
b. Co-requisite(s): None

I. STUDENT LEARNING OUTCOMES:

Course Student Learning Outcome [SLO]	PSLO	GER	ISLO
a. Identify the role of information technology in supporting operational and business requirements, and management decision-making	2. Identify issues and collaborate on solutions concerning IT in an effective and professional manner		2 [CA]
b. Apply the systems development life cycle model to a computer-based information system	3. Demonstrate a solid understanding of the methodologies and foundations of IT		2 [IA, PS] 5
c. Use the tools and techniques of systems analysis and design professionals	3. Demonstrate a solid understanding of the methodologies and foundations of IT		2 [CA] 5
d. Understand and use the terminology associated with information systems development	3. Demonstrate a solid understanding of the methodologies and foundations of IT		5
e. Demonstrate the ability to interact with clients, users, and	1. Communicate effectively both		1 [O, W] 4 [T, GL]

management, as well as with team members in promoting a successful project outcome	verbally and in writing		
f. Employ project management and/or team leadership skills in planning, coordinating, and ensuring quality of the assigned tasks.	1. Communicate effectively both verbally and in writing 3. Demonstrate a solid understanding of the methodologies and foundations of IT 4. Apply problem solving and troubleshooting skills		1 [O] 4 [T] 5

KEY	Institutional Student Learning Outcomes [ISLO 1 – 5]
ISLO #	ISLO & Subsets
1	**Communication Skills** Oral [O], Written [W]
2	**Critical Thinking** *Critical Analysis [CA] , Inquiry & Analysis [IA] , Problem Solving [PS]*
3	**Foundational Skills** *Information Management [IM], Quantitative Lit,/Reasoning [QTR]*
4	**Social Responsibility** *Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]*
5	**Industry, Professional, Discipline Specific Knowledge and Skills**

J.   APPLIED LEARNING COMPONENT: Yes___x___   No_____

- **Classroom/Lab**
- **Creative Works/Project**

K.   TEXTS:

Systems Analysis and Design, by Scott Tilley and Harry J. Rosenblatt, Course
Technology; 11 edition, 2016

L. **REFERENCES:** None

M. **EQUIPMENT:** Computer classroom

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

O. **SUGGESTED MEASUREMENT CRITERIA/METHODS:**

Assignments
- Examinations
- Project

P.   <u>**DETAILED COURSE OUTLINE**</u>**:**

        I.   The Role of System Analysis and Design at the Enterprise Level

        II.   Systems Planning – Analyzing the Business Case

        III.   Requirements Gathering and Modeling

        IV.   Enterprise Modeling and Development Strategies

        V.   Systems Architecture and Design

        VI.   Systems Implementation

        VII.   Systems Operation and Support

        VIII.   Tools of the Trade

        IX.   Advanced Topics

Q.   <u>**LABORATORY OUTLINE**</u>**:**   Not applicable