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

MASTER SYLLABUS

CITA 170 – Computer Concepts and Operating Systems
CIP Code: 11.0103

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Updated by: Thomas Burl

Canino School of Engineering Technology
Decision Systems
Fall 2024

A. **TITLE**: Computer Concepts and Operating Systems

B. **COURSE NUMBER: CITA 170**

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

 # Credit Hours: 3
 # Lecture Hours per Week: 3
 # Lab Hours per Week:
Other per Week:

Course Length (# of Weeks): 15

D. **WRITING INTENSIVE COURSE**:

E. **GER CATEGORY:**

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

G. **COURSE DESCRIPTION:**
In this course, students will learn the terminology and concepts of hardware and software for computer systems. Topics will include system hardware components, memory organization, and management, operating systems, troubleshooting fundamentals, etc.

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

a. Pre-requisite(s):
b. Co-requisite(s):

I. **STUDENT LEARNING OUTCOMES:**

Course Student Learning Outcome [SLO]	***PSLO***	***GER***	***ISLO***
a. Distinguish essential computer hardware components			[5]
b. Summarize typical computer peripherals			[5]
c. Illustrate options for maintaining and optimizing an operating system			[5]
d. Analyze hardware issues			[5]
e. Analyze software issues			[5]
f. Compare security options in an operating system			[4][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_____ No_____

If Yes, select one or more of the following categories:

Classroom/Lab___
Internship___
Clinical Practicum___
Practicum___
Service Learning___
Community Service___
Civic Engagement___
Creative Works/Senior Project___
Research___
Entrepreneurship___
(program, class, project)

K. TEXTS:

Mike Meyers' CompTIA A+ Guide to Managing and Troubleshooting PCs, Sixth Edition (Exams 220-1001 & 220-1002) by Mike Meyers

ISBN:9781260455076

L. REFERENCES:

M. EQUIPMENT:

Standard classroom with teaching station

N. GRADING METHOD:

A-F

O. SUGGESTED MEASUREMENT CRITERIA/METHODS:

Quizzes and Exams (Forums in Online course)

P. DETAILED COURSE OUTLINE:

I. Section 01
   A. The Visible PC
   B. CPU
   C. RAM
   D. Firmware
II. Section 02
   A. Motherboards

B. Power Supplies
C. Mass Storage Technologies
D. Implementing Mass Storage

III. Section 03
a. Windows Under the Hood
b. Windows Securities
c. Maintaining and optimizing an Operating Systems
d. Troubleshooting an operating system

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