SYLLABUS

DIVISION: Business and Engineering Technology   **REVISED:** Fall 2014

CURRICULA IN WHICH COURSE IS TAUGHT: **Programming**

COURSE NUMBER AND TITLE: **ITP 134 –** C++ Programming I

CREDIT HOURS: 4 **HOURS/WK LEC:** 4 **HOURS/WK LAB:** 0 **LEC/LAB COMB:** 4

═══

I.   **CATALOG DESCRIPTION:** Provides instruction in fundamentals of object-oriented programming and design using Visual C++ for GUI applications. Course content emphasizes software design and construction using the concepts of foundation classes.

II.   **RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:**
- Introduction to mobile applications
- Overview of language fundamentals and syntax
- Create syntax using the language features
- Plan, design, and implement applications
- Produce manageable applications and ideas for applications

III.   **REQUIRED BACKGROUND:**   ITP 100 - Software Design

IV.   **COURSE CONTENT:**
- Develop ideas for business applications
- Programming Basics Using Visual C++
- Arithmetic Operators and Control Structures
- Arrays and Pointers
- Visual C++ Functions
- Classes
- Class Features and Design
- Overloading Operators
- Inheritance

V. THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE.

X Communication	**X** Critical Thinking
_____Cultural and Social Understanding	**X** Information Literacy
_____Personal Development	**X** Quantitative Reasoning
_____Scientific Reasoning	

VI. LEARNER OUTCOMES	VII. EVALUATION
Program design introduction • Understand the design aspects of applications • Understand layout and color • Understand what works for age groups • Understand the different types of applications • Understand the versatility of applications	Lab exercises In class assignments Project Test
Application Design • Pick colors, layout and text • Design a storyboard for the application • Start to put the application on the computer • What works	Lab exercises In class assignments Project Test
Programming Basics Using Visual C++ • Understand basic control structures • Understand variables and named constants • Understand declarations • Arithmetic Operators and Control Structures	Lab exercises In class assignments Project Test
Application Coding • Running the programs • testing the programs • putting programs into production	Lab exercises In class assignments Project Test
Application executables • Converting the files to executables • Polishing up the program • User input dos and donts	Lab exercises In class assignments Project Test