BARTON COMMUNITY COLLEGE
COURSE SYLLABUS

I. GENERAL COURSE INFORMATION

Course Number: PRGM XXXX
Course Title: Object-Oriented Programming
Credit Hours: 3
Prerequisite: PRGM 1037 Computer Science I
Division/Discipline: WTCE
Course Description: This course introduces object-oriented programming concepts using a high level language. Topics covered in this course include: objects, classes, methods, attributes, constructors, overloading, member access, arrays of objects, inheritance, polymorphism, overriding methods, abstract class, and interfaces. Multiple programming projects are required.

II. INSTRUCTOR INFORMATION

III. COLLEGE POLICIES

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

The College reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage.)

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at disabilityservices@bartonccc.edu.

IV. COURSE AS VIEWED IN THE TOTAL CURRICULUM

In this course students will be taught the fundamental of object-oriented programming methods. It builds on the programming principles covered in Computer Science I. This

course serves as a major requirement to students in the Computer Science and Computer Information Systems programs at Barton Community College.

V. ASSESSMENT OF STUDENT LEARNING

Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what they know, and what they can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

Course Outcomes, Competencies, and Supplemental Competencies:

A. Explain the object-oriented methodology
   1. Identify a problem in terms of objects and their interactions
   2. Describe the advantages of the object-oriented approach
   3. Model Objected-oriented concepts with UML

B. Recognize objected-oriented terminology
   1. Explain classes, objects, and their components
   2. Identify appropriate member access and use
   3. Explain mutators, accessors, and constructors
   4. Describe inheritance and polymorphism
   5. Identify abstract classes and interfaces

C. Apply object-oriented concepts in a program
   1. Design and create classes
   2. Create and use objects
   3. Create and use an array of objects
   4. Design and implement inheritance
   5. Implements abstract classes and interfaces

VI. INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS

VIII. REFERENCES

IX. METHODS OF INSTRUCTION AND EVALUATION

X. ATTENDANCE REQUIREMENTS

XI. COURSE OUTLINE