Computer Technology Department Business/Public Service Division GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Object-Oriented Logic & Design

Course Number: CPT 187

READ THIS SYLLABUS CAREFULLY

You should read this syllabus carefully and ask your instructor about *any* aspects that you do not understand. The syllabus is an agreement between you and your instructor concerning course objectives, course content, grading, and other policies and procedures particular to this course. The following information is specific to the course. Three additional documents are provided as attachments and *are considered a part of this syllabus*:

Attachment I:

Each instructor will provide a supplement to this syllabus. The supplement will include: a week-by-week plan of instruction based on the section in which you are enrolled; your instructor's name, office hours and/or office location; and your instructor's contact information and recommended best methods to contact your instructor.

Attachment 2:

The Department responsible for developing and teaching has policies and procedures in place to assure quality instruction for all students. These are attached as "Departmental Policies and Procedures."

Attachment 3:

Please note that it is your responsibility to read the current Student Handbook included in Greenville Technical College's Catalog. (See website.) The Student Handbook addresses specific academic and student conduct policies and procedures. Excerpts from the Student Handbook representing the policies and procedures most often referred to in working with students are provided for your convenience as "Attachment 3."

Approved by:

Beau Sanders, Department Head, Computer Technology Department

beau.sanders@gvltec.edu, (864) 250-8314, Barton Campus, Building 103/311

Approved by:

Lenna C. Young, Ph.D., Vice President for Academic Affairs

for the Dean of Business/Public Service Division

Dean's Office: (864) 250-8196, Barton Campus, Engineering Technology Building 103/104

<u>40023013</u>

This syllabus will remain in effect until revised or reviewed no later than August 2014.

Computer Programming Department Business/Public Service Division GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Object-Oriented Logic & Design

Course Number: CPT 187

Lecture hours per week: 3.0

Lab/Clinic Hours:

Semester credit hours: 3.0

Prerequisite: CPT170 or CPT113 and MAT 102 or higher. Computer Technology students must obtain a

minimum grade of "C" in all CPT and IST courses.

Catalog Course Description: This is a study in the planning and implementation of object-oriented programs. This course focuses on the fundamental concepts of designing and coding programs using an object-oriented language.

Purpose of the Course: This course introduces the student to the basics of object-oriented programming using the Java programming language.

Required text(s) or other materials:

- 1. <u>Introduction to Java Programming; 9th Edition, Brief Version</u>; Y. Daniel Liang; Publisher : Pearson; ISBN: 9780132923736
- 2. NOTE: <u>Students in traditional classes</u> must access Blackboard for course-related information. <u>Students in hybrid and online classes</u> will access their online content through Blackboard.

COLLEGE-WIDE STUDENT LEARNING OUTCOMES

- 1. Communication Students will demonstrate the ability to use active reading and listening skills and to produce effective written and oral communication for varying audiences.
- 2. Information Technology and Technological Literacy Students will demonstrate competency in using computer technology within a field of study.
- Critical Thinking/Reasoning Students will demonstrate the ability to apply the scientific method, mathematical processes, and research skills to analyze and solve problems/issues by using reflection and reasoning to justify conclusions.
- 4. Professional and Personal Responsibility Students will demonstrate the ability to exhibit conduct, attitudes, and etiquette appropriate to the student's community and chosen career. Students will demonstrate the ability to manage time, to use effective interpersonal skills, and to display responsible behavior.
- 5. Diversity Students will demonstrate the ability to recognize diversity and to demonstrate respectful conduct and attitudes toward all. Students will demonstrate the ability to explain how global issues impact life, work, and opportunities.

COMPUTER TECHNOLOGY PROGRAM LEVEL STUDENT LEARNING OUTCOMES

Upon successful completion of the Computer Technology Degree students will be able to:

- 1. Install computer and network hardware.
- 2. Install computer operating systems and application software.
- 3. Design, create and test computer programming solutions.
- 4. Demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer assignments.
- Analyze, troubleshoot, and correct computer related technical problems.

Revised August 2012

CPT 187 COURSE OUTCOMES

Students who successfully complete this course will have demonstrated the skills required to accomplish the following objectives with a minimum competence level of 70 percent.

- 1. Students will be able to demonstrate the ability to design, write and debug Java programs according to specifications.
- 2. Students will be able to demonstrate the ability to take initiative by completing a lab assignment with minimal supervision.
- 3. Students will be able to demonstrate the ability to work under pressure, and show responsibility by completing lab assignments.
- 4. Students will be able to demonstrate a basic proficiency in the use of Java syntax to include primitive data types, operators, selection statements, control statements, arrays, classes, methods and naming conventions.
- 5. Students will be able to demonstrate the ability to define methods, call methods, pass arguments to methods and return values from methods.

The objectives of the CPT 187 course are intended to meet the CPT program level student learning outcomes.

CPT 187 – MAIN TOPICS

PLAN OF INSTRUCTION:

TOPIC

Topic 1 Introduction to Computers, Programs, and Java

Topic 2 Elementary Programming

Test 1 (Covers Topic 1-2)

Topic 3 Selections
Topic 4 Loops

Test 2 (Covers Topic 1 – 4)

Topic 5 Methods Topic 6 Arrays

Test 3 (Covers Topic 1 - 6)

Topic 7 Objects and Classes

Final Exam (Comprehensive)

The final exam for online students will be administered on the Barton Campus and will be scheduled at a time determined by the department.

NOTE: Hands-on lab assignments and other student projects will be scheduled throughout the semester.

Tutoring is available in the Business Division Student Lab located on the Barton Campus in the Engineering Building (Building 103), Room 113. The hours for tutoring are posted on door of Room 113; no appointment is necessary. There are no fees required for this service.

The instructor reserves the right to modify the Plan of Instruction by changing the sequence of text material or testing content.

CPT 187 – COURSE SPECIFIC REQUIREMENTS

There are no specific course requirements other than attachment 1.

CPT 187 – EVALUATION AND GRADING INFORMATION

Grades will be calculated as follows:

Exams represent 85 percent of the final grade: 60 percent tests and 25 percent final exam. Lab assignments count 15 percent of the final grade.

- 1. A minimum of 10 programming assignments are required for the course.
- 2. Programming assignments will be assigned from selected chapters.
- 3. The following factors will also be considered in grading programs:
 - a. The program must work correctly and produce the desired results.
 - b. The program must use good style / good programming practices.
 - c. Program must be efficient.
 - d. Documentation should be clear and meaningful.

All assignments (i.e., labs, projects, research papers, etc.) for this course must be completed and submitted to the instructor by the due date established in order to receive credit for the assignment.

Final letter grades will be issued as follows:

A = 90 - 100

B = 80 - 89

C = 70 - 79

D = 60 - 69

F = 0 - 59

Business/Public Service Division – Assistant Dean Information

During the semester, if you have any issues that need to be addressed at an administrative level, the Business/Public Service has two assistant deans in addition to the Dean who will be glad to speak with you about your concerns. They are available via email, phone, or in their offices as provided below:

Elizabeth Mann, Assistant Dean, Business/Public Service for Teaching and Learning <u>elizabeth.mann@gvitec.edu</u>, (864) 250-8491, Barton Campus, Criminal Justice Building 121/124

Mary Locke, Assistant Dean, Business/Public Service for Student Services

<u>mary.locke@gvitec.edu</u>, (864) 250-8629, Barton Campus, Engineering Technology Building 103/304