

**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:** MAT 109 or MAT 110 or higher and CPT 101 or CPT 113

**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. Introduction to Java Programming; Eighth Edition, Brief Version; Y. Daniel Liang; Pearson/Prentice Hall; ISBN: 9780132130790
2. NOTE: Students in traditional classes must access Blackboard for course-related information. Students in hybrid and online classes 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.
3. 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.

*Approved March 26, 2009*

<b>COMPUTER PROGRAMMING PROGRAM LEVEL STUDENT LEARNING OUTCOMES</b>
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Upon successful completion of the CPT/Programming program, the graduate will be able to:

1. Students will be able to analyze, design, develop, and document solutions that will satisfy the information needs of business users using established design methodologies and standards.
2. Students will be able to design, create, test, and document logical programming solutions to prescribed specifications following established standards and using current development environments and languages for application development and database management.
3. Students will be able to demonstrate the knowledge and ability to install and maintain microcomputer hardware and operating system software.
4. Students will be able to demonstrate the use of a minimum of three business application software packages.
5. Students will be able to demonstrate fundamental team building, project management, and presentation skills by participating in team projects that include team goals and values, a development methodology for documentation and coding, group presentations, and exposure to topics such as diversity, time management, and goal setting.
6. Students will be able to demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer lab assignments.

<b>CPT 187 COURSE OUTCOMES</b>
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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/Programming program level student learning outcomes numbered 2 and 6 above.*

<b>CPT 187 – Main Topics</b>
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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.*

## CPT 187 – Course Specific Requirements

There are no specific course requirements other than attachment 1.

## CPT 187 – EVALUATION AND GRADING INFORMATION

### GRADING POLICY

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

**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 above information is specific to the course. Three additional documents are provided as attachments and *are considered a part of this syllabus*:

Attachment 1:

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:



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27 Jul 11  
Date

*This syllabus will remain in effect until revised or reviewed no later than August 2012.*