CIT312/CS121 – Introduction to Programming

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Course Description:

This course covers methods for developing solutions to programming problems using object-oriented techniques. The course covers the fundamentals elements of object-oriented programming. Students will learn how to use classes and objects, and the Java Library to develop object oriented solutions. Students will be introduced to the use of data structures in programs and the use of UML (Unified Modeling Language). Programming problem-solving is emphasized throughout.

Course Objectives:

At the end of this course, you will be able to:

- understand the roles of computer hardware, programming languages, data storage, software, and algorithms in problem-solving;
- develop, test, and execute small Java programs using the Eclipse development environment;
- understand the components of a Java program;
- identify the basic data types used in Java;
- use Java classes as components in a programming solution;
- understand the basics and advantages of an object-oriented approach to software development:
- create classes and use them in your programs;
- use loops and conditional statements:
- manage data using arrays.

Required Text:

Lewis and Loftus, *Java Software Solutions: Foundations of Program Design*, Addison Wesley, 8th edition, ISBN 0-13-359495-5.

<u>I recommend bringing the text to every class, either in book or digital form. We will</u> use it almost every class for hands on exercises

Technology Requirements:

- You must bring a laptop to every class
- Java software (available from http://www.java.com)
- Eclipse development environment (available from http://www.eclipse.org/)
- Installation instructions available on Blackboard.

Course Activities:

Readings

See assigned readings under the class schedule. Students **MUST** read and be prepared to discuss the assigned chapters at the start of each class and keep up with the material as outlined in the course schedule. Failure to do so you adversely impact your grade.

Homework, Class work and group work

Regular homework, class work, and programming exercises will be assigned based on reading from the chapter. Assignments will be submitted via through Blackboard. Late submissions will be penalized.

Exams

Exam One will cover Chapters 1-4 Exam Two will cover Chapters 5-9

Programming Project

Students will complete an end of semester Java programming project. The exact requirements of the project will be distributed later in the semester.

Grading:

Activity	Value
Attendance and class participation	10 points
Programming exercises (homework and in class labs)	20 points
Programming project	25 points
Exam one	20 points
Exam two	25 points
Total	100 points

Course Policies:

- Make-up Exams Make-up exams will be given only in exceptional circumstances and only if the student receives prior permission from the instructor.
- All assignments (unless otherwise instructed) will be submitted through Blackboard. <u>Late</u> submissions will be penalized.
- Attendance and active class participation is required for all classes. If you cannot attend a class for a serious reason, please contact Prof. Dwyer before the start of that class.
- Academic Honesty See Pace University Policy on Academic Integrity -http://www.pace.edu/sites/default/files/files/student-handbook/Academic-Integrity-Code.pdf
- Grades for all assignments and exams will be posted in each student's personal grade book on Blackboard.
- Withdrawal Same policy as all other Pace courses for Fall 2017.

AMERICAN WITH DISABILITIES ACT

http://www.pace.edu/counseling-center/resources-students-disabilities

ACADEMIC HONESTY

If a student believes that he/she has a disability that may affect academic performance, that student should notify Pace University's Counseling Center for assessment and advisement. If a student tells the instructor that he/she has a disability, the instructor is bound by University policy to notify the appropriate University representative of such disability.

Secondly, students must accept the responsibility to be honest and to request ethical standards in meeting their academic requirements. The Academic Integrity policy of Pace University states that it is unethical to plagiarize, to cheat on and examination, or to turn in work that is not yours. That means you CANNOT COPY WORK FROM SOMEONE ELSE OR PRINT TWO COPIES OF THE SAME ASSIGNMENT TO BE HANDED IN BY TWO INDIVIDUALS. Each student must do his/her own work. Students who fail to meet the responsibility for academic integrity subject themselves to sanctions ranging from a reduction in grade or failure in the assignment in which the offense occurred to suspension or dismissal from the University.

It is easy for an instructor to tell when data has been duplicated between students. All instructors reserve the right to challenge work they feel has not been completed independently.

Converting Your Numeric Grade to a Letter Grade

Average	Letter Grade
>= 94	A
>= 90 and < 94	A-
>= 87 and < 90	B+
>=84 and < 87	В
>= 80 and < 84	B-
>= 77 and < 80	C+
>= 74 and < 77	C
>= 70 and < 74	C-
>= 65 and < 70	D+
>= 60 and < 65	D
< 60	F