



**University of Puerto Rico
Mayagüez Campus
College of Business Administration**



Syllabus

General Information:														
Course Code: SICI 4175 Course Title: Introduction to Java Programming Credit-Hours: 3 Academic Term: Fall 2010-2011														
Course Description:														
Introduction to object oriented programming concepts and a basic coverage of the Java programming language and its syntax.														
Pre/Co-requisites:														
SICI 3051 or COMP 3010 or INGE 3016														
Course General Learning Goals:														
After completing the course, the student should be able to: <ul style="list-style-type: none">• Describe object-oriented programming• Apply object-oriented constructs• Describe the difference between a Java application and a Java Applet• Develop and test programs in Java• Use the predefined Java classes• Demonstrate programs that include event handling and exception handling														
Learning Outcomes Addressed in this Course														
This course is intentionally designed to enable students to develop the following competencies: <ul style="list-style-type: none">• Information Technology Skills• Problem Solving (design and development of programs to solve business related problems)• Business Major-Related Knowledge, Skills and Abilities														
Content Outline and Time Distribution														
<table><tbody><tr><td>[hours] TOPIC</td><td>[6.0] Polymorphism and Inheritance</td></tr><tr><td>[1.5] Introduction to Java</td><td>[1.5] Exception Handling</td></tr><tr><td>[3.0] Java Fundamentals</td><td>[3.0] GUI Basics and Swing</td></tr><tr><td>[4.5] Program Control Statements</td><td>[3.5] Strings and Regular Expressions</td></tr><tr><td>[3.0] Methods</td><td>[4.0] Files, Streams and Serialization</td></tr><tr><td>[3.0] Arrays</td><td>[3.0] Java Applets</td></tr><tr><td>[6.0] Classes and Objects</td><td>[3.0] <i>Assessment and Partial Exams</i></td></tr></tbody></table>	[hours] TOPIC	[6.0] Polymorphism and Inheritance	[1.5] Introduction to Java	[1.5] Exception Handling	[3.0] Java Fundamentals	[3.0] GUI Basics and Swing	[4.5] Program Control Statements	[3.5] Strings and Regular Expressions	[3.0] Methods	[4.0] Files, Streams and Serialization	[3.0] Arrays	[3.0] Java Applets	[6.0] Classes and Objects	[3.0] <i>Assessment and Partial Exams</i>
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Department/Campus Policies:														
Disabilities: <u>According to Law 51</u>: Students with disabilities, after identifying themselves to the instructor of the course and the Institution, will receive reasonable accommodations in their courses and evaluations. For additional information, contact Services to Students with Disabilities at the Office of the Dean of Students (Q-019), 787-265-3862 or 787-832-4040, Ext. 3250 or 3258.														
Ethics: Any academic fraud is subject to the disciplinary sanctions described in Articles 14 and 16 of the revised General Student Bylaws of the University of Puerto Rico contained in Certification 018-1997-98 of the Board of Trustees. The professor will follow the norms established in Articles 1-5 of the Bylaws.														

INSTRUCTOR INFORMATION

General Information:

Instructor: **José A. Cruz**
Office: AE- 327
Phone: 832-4040 Ext. 5359
Office Hours: T. & Th., 1:30 – 3:00 PM and by appointment
E-mail: via EDU 2.0

Textbook and Other Resources

Java: How to Program (Late Objects Version)
Deitel and Deitel , 8th ed, Prentice Hall (2010)

Instructional Strategies:

The main instructional strategies include lectures, programming demonstrations, hands-on exercises and practice, programming assignments, independent study and teamwork and assessment activities (for example: short programming exercises, “muddiest point” exercise, unannounced quizzes). *Assessment activities will **not** affect the final grade.*

Minimum Required or Available Resources:

No special resources are required. The required (open source) software and tools are included with the course textbook. These applications are also available for use at the Business School Computer Center.

Evaluation/Grade Reporting:

50% Partial Exams (250 points) < EX1, EX2, EX3 >

10% Final Exam (50 points) < FNL >

20% Programming Assignments (100 points) < HW1, HW2, HW3, HW4, HW5 >

05% Class attendance (25 points) < ATND >

05% Class participation (quizzes, assessment, in-class tasks, etc.) (25 points) < T1, T2, T3, T4, T5 >

10% End-of-semester Project / Case Study (50 points) < PROJ >

Grade / Percentage Ranges:

A: 90% – 100%, **B:** 80% - 89.9%, **C:** 70% - 79.9%, **D:** 60% - 69.9%, **F:** < 60%
A: 450 – 500 pts., **B:** 400 – 449 pts., **C:** 350 – 399 pts., **D:** 300 – 349 pts., **F:** < 300 pts.

Assessment of Learning:

During the semester we will be using several techniques that will help us determine your level of learning. Our main purpose is to help students identify how much and how well he/she is learning and to detect areas that may need reinforcement before the final grade is determined. These techniques will also help the professor use more effective teaching strategies. Among others, we will use the “**Muddiest Point**”, **pre/post tests, short programming exercises, and unannounced quizzes.**

Course Policies

- Class attendance is mandatory and will be recorded daily.
- Students are expected to do their own work. **Assignments should be done individually unless instructed otherwise.**
- Students that submit work of others as their own, through fault or carelessness, incur in plagiarism. **Cheating and plagiarism will not be tolerated.**
- Quizzes might be unannounced and **NO** make-up quizzes will be offered.
- Mobile phones and similar devices should be kept off or in silent mode and not used in class.

Course Outline and Schedule (***) may be updated during the semester according to course needs (***)

Class #	Topic(s)	Chapter
1	Introduction to Java	1
2-3	Java Fundamentals	2
4-5-6	Program Control Statements	3 & 4
7-8	Methods	5
9	EXAM # 1 (Chapters 1-5)	n/a
10-11	Arrays	6
12	Introduction to Strings and Files	6
13-14-15-16	Classes and Objects	7 & 8
17-18	Object-Oriented Programming: Inheritance	9
19-20	Object-Oriented Programming: Polymorphism	10
21	EXAM # 2 (Chapters 6-10)	n/a
22	Exception Handling	11
23-24	GUI Basics	14
25-26	Strings, Characters and Regular Expressions	16
27-28	Files, Streams and Object Serialization	17
n/a	EXAM # 3 (Chapters 11,14,16 & 17)	n/a
29-30	Java Applets	23 & 24
TBA	Final Exam (23, 24, General Concepts)	n/a

References

Introduction to Programming Using Java, Fifth Edition (Version 5.1.2, June 2010)

David J. Eck (URL: <http://math.hws.edu/javanotes/>)

"Object-oriented programming using C++", 4th ed., Joyce Farrell, Course Technology (2008)
UPR-RUM General Library (QA76.64 .F37 2009)

"Java Concepts", Horstmann, Cay S., Wiley (2005)
UPR-RUM General Library (QA76.73 .J38 H6754 2005)

Object-oriented program development using C++ : a class-centered approach, Bronson, Gary J.,
Course Technology (2005)
UPR-RUM General Library (QA76.9 .O35 B7 2006)

"Object-oriented software engineering : using UML, patterns and Java", Bruegge, B., Prentice Hall, (2004)
UPR-RUM General Library (QA76.758 .B785 2004)

"Understanding programming : an introduction using Java", Cannon, S. R., Thomson Brooks/Cole, (2003)
UPR-RUM General Library (QA76.6 .C358 2003)

"Programming basics : using Microsoft Visual Basic, C++, HTML, and Java", Course Technology, (2002)
UPR-RUM General Library (QA76.7 .P76 2002)

Additional references to be provided as needed. Students are encouraged to explore the numerous Java and Object Technology related resources available online.

Notes

Suggested IDEs

--- NetBeans: <http://www.netbeans.org/>

--- jGRASP: <http://www.igrasp.org/>

--- BlueJ: <http://www.bluej.org/>