

University of Puerto Rico
 Mayagüez Campus
 College of Engineering
 Department of Electrical and Computer Engineering

Course Syllabus

1. General Information:	
Alpha-numeric codification: ICOM 6089 Course Title: Diseño de Programas Orientados a Objetos Number of credits: 3 Contact Period: Tres horas contacto por semana.	
2. Course Description:	
English: Fundamental concepts of object-oriented programming and its use in the design and development of software. Study and implementation of object-oriented languages and architectures.	
Spanish: Conceptos fundamentales de la programación orientada a objetos y estudio de varios lenguajes orientados a objetos. Diseño y desarrollo de programas basados en objetos. Realización de lenguajes y arquitecturas basadas en objetos.	
3. Pre/Co-requisites and other requirements:	
Graduate Standing	
4. Course Objectives:	
Students will learn the fundamental concepts of object-oriented analysis and design. Introduce the students to the use of software design patterns. Students will apply the classroom concepts in an object-oriented software project.	
5. Instructional Strategies:	
<input checked="" type="checkbox"/> conference <input checked="" type="checkbox"/> discussion <input checked="" type="checkbox"/> computation <input type="checkbox"/> laboratory <input type="checkbox"/> seminar with formal presentation <input type="checkbox"/> seminar without formal presentation <input type="checkbox"/> workshop <input type="checkbox"/> art workshop <input type="checkbox"/> practice <input type="checkbox"/> trip <input type="checkbox"/> thesis <input type="checkbox"/> special problems <input type="checkbox"/> tutoring <input type="checkbox"/> research <input checked="" type="checkbox"/> other, please specify: Project	
6. Minimum or Required Resources Available:	
7. Course time frame and thematic outline	
Outline	Contact Hours
Object-Oriented vs. Traditional Approach	2
Object-Oriented Model	2
Object-Oriented Analysis	2
UML	2
Object-Oriented Programming Language	10
Object-Oriented Design	5
Design Patterns	20
Exams	2
Total hours: (equivalent to contact period)	45
8. Grading System	
<input checked="" type="checkbox"/> Quantifiable (letters) <input type="checkbox"/> Not Quantifiable	

9. Evaluation Strategies

	Quantity	Percent
<input checked="" type="checkbox"/> Exams	2	40%
<input type="checkbox"/> Final Exam		
<input type="checkbox"/> Short Quizzes	Variable	10%
<input type="checkbox"/> Oral Reports		
<input type="checkbox"/> Monographies		
<input type="checkbox"/> Portfolio		
<input checked="" type="checkbox"/> Projects	1	40%
<input type="checkbox"/> Journals		
<input checked="" type="checkbox"/> Other, specify: Homework	Variable	10%
TOTAL:		100%

10. Bibliography:

1. Shalloway, A. and Trott, R., "Design Patterns Explained", 2nd Ed, Addison-Wesley, 2005
2. Blaha, M. and Rumbaugh, J., "Object-Oriented Modeling and Design with UML", 2nd Ed., Prentice-Hall, 2005
3. Bruegge, B. and Dutoit, A.H., "Object-Oriented Software Engineering", 2nd Ed., Prentice-Hall, 2001.
4. Fowler, M. and Scott, K., "UML Distilled: Applying the Standard Object Modelling Language", Addison Wesley, 1997

11. According to Law 51

Students will identify themselves with the Institution and the instructor of the course for purposes of assessment (exams) accommodations. For more information please call the Student with Disabilities Office which is part of the Dean of Students office (Chemistry Building, room 019) at (787)265-3862 or (787)832-4040 extensions 3250 or 3258.