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

ICOM 4036 – Structure and Properties of Programming Languages
Course Outline – Spring 2006

Topics	Required Reading[1]	Estimated Periods
Course Introduction and Overview PL Design Criteria, Overview of PL Translation	PLP 1.1-1.7	2
The Nature of Computing	Lecture Notes	2
Programming Language Specification & Translation	PLP 2.1-2.2,2.4	3
Programming Paradigms I: Low-level programming	PLP 5.1-5.5,5.7	3
EXAM I		N/A
Programming Paradigms II: Imperative Programming	Fortran Manuals	1
Programming Paradigms III: Functional Programming	Scheme Manuals	3
Programming Paradigms IV: Logic Programming	Prolog Manuals	3
Names, Lifetimes, Scopes and Bindings	PLP 3.1-3.7	2
EXAM II		N/A
Control Flow	PLP 6.1-6.6,6.8	1
Type Systems	PLP 7.1-7.8 7.10-7.11	2
Subroutines, Control Abstraction, Exceptions and Concurrency	PLP 8.1-8.7	3
Object-Oriented Programming I: Classes, Data Abstraction, Inheritance and Subtype Polymorphism	PLP 10.1-10.4 Java Docs	1
Object-Oriented Programming II: Multiple Inheritance and Interfaces	PLP Ch 10 Java Docs	2
EXAM III		N/A
Programming Paradigms V: WebApp Frameworks	Online Docs	2
FINAL EXAM		N/A
Total class periods		**30**

Prepared by: Dr. Bienvenido Vélez-Rivera
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[1] Lecture notes and slides constitute required reading for all topics in the course