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Code	Subject Title	Cr. Hrs	Semester
IT-307	Object Oriented Analysis and Design (ICS)	3	V
Year	Discipline		
3	Information Technology		

**Objectives**

The objective of this course is to demonstrate knowledge and understanding of essential facts, concepts, principles, and theories relating to computer science and software applications. It involves the applications of object-oriented concepts and to identify and analyze criteria and specifications appropriate to specific object oriented problems, and plan strategies for their solution. The following topics will be covered in the course: Introduction to Object Oriented Concepts, Object-Oriented Analysis and Design, Linear and Iterative Process Models, Requirement Engineering utilizing Object-Oriented Techniques, Software Design and Architectures, Object-Oriented Design, UML modeling, Use-Case Modeling, Domain Modeling, Interaction Diagrams, Design Modeling, and Implementation Modeling; Design Patterns (GRASP), User Interface Design, Usage of Rational Rose, Object-Oriented Testing, Object-Oriented Metrics, Component Based Development, Reusability.

**Prerequisites**

Software Engineering

**Text Book**

Stephan Schach, Irwin, *Object-Oriented Software Engineering*, 1999. ISBN: 0072418729

Craig Larman, *Applying UML and Patterns*, 2002. ISBN-10: 0130925691

**Reference Material**

- Roger Pressman, *Software Engineering: A Practioner's Approach*, McGraw-Hill, 2005. ISBN 9780073019338