

Title	Object Oriented Analysis and Design
Code	CMP-492
Credit Hours	3
Category	Computing
Prerequisite	None
Co-Requisite	None
Follow Up	None
Course Description	Object Oriented Analysis and Design Basics. Introduction to UML, UML Diagrams. Use Case Modeling, Rational Rose overview, Use case modeling in Rational Rose. Introduction of Interaction Diagrams, System Sequence Diagram; Domain Model: Identifying business classes, Domain Model Associations, Domain Model Attributes, Implementation of Sequence Diagram and Domain model in Rational Rose; Interaction Diagram: Sequence diagrams, Collaboration Diagrams, Implementation of Sequence and Collaboration diagrams in Rational Rose; Design Class Diagram, Mapping Design to Code. Object Oriented software engineering: Introduction to design patterns, GRASP, Information Expert, Creator, GRASP: Cohesion, Coupling, Controller, Introduction to Design Class Diagram, Mapping data model to Domain model, Mapping Design to Code.
Text Book(s)	Grady Booch, James Rumbaugh, Ivar Jacobson, The Unified Modeling Language User Guide, 2nd Edition, Addison-Wesley, 2005, ISBN-13: 978-0321267979.
Reference Material	<ol style="list-style-type: none"> 1. Simon Bennett, Ray Farmer, Object-Oriented Systems Analysis and Design Using UML, 4th Edition, McGraw-Hill Education, 2010, ISBN: 0077125363 2. Erich Gamma, Richard Helm, Ralph Johnson, John Vlissides, Grady Booch, Design Patterns: Elements of Reusable Object-Oriented Software 1st Edition, Addison-Wesley Professional, 1994, ISBN-10: 0201633612