

CEN-5087 Software and Data Modeling

Catalog Description

Essential software and data modeling methods and techniques such as UML, XML, and ER. This course covers basic and advanced modeling concepts: how to model, how to manage complexity with patterns and tools.

Prerequisites

SCIS Graduate Standing

Type

Required for MSIT

Cannot be an Elective for MSCS, MSTN, and Ph.D. students

Course Objectives

Students will learn the core set of skills required during software development life cycle including project initiation and management, requirement gathering, analysis and design.

Topics

- Introduction
- Project Initiation
- Project Management
- Requirements gathering
- Analysis
 - Functional Modeling
 - Object Modeling
 - Dynamic Modeling
- Design
 - Class design
 - Data Design
 - Interface Design
 - Architecture Design

Textbook

Alan Dennis, Barbara Haley Wixom and David Tegarden, *System Analysis and Design with UML version 2.0: An Object-Oriented Approach. 3rd Edition*, (Wiley, 2009).

Last Update

Masoud Milani 12/17/2012