CS 33901  SOFTWARE ENGINEERING  3 Credit Hours

Instructor’s Name: _________________________________________________


Course Content:
   An introduction to software engineering concepts: life cycle models; modeling languages; requirements analysis; specification; design; testing; validation; project management and maintenance.

   Prerequisites or co-requisites: C (2.000) or better in CS 23001

Required

Goals:
   • Teach software design and introduce software engineering practices

Outcomes:
   • Students will learn concepts of object oriented design and programming using the Unified Modeling Language and will be given an overview of other important aspects of the software development process.
   • DESIGN, ANALYSIS, PROGRAMING, PROFESSIONALISM

Topics to be Covered:
   • Life Cycle Models (Focus on iterative methods and Agile Modeling Based of the Unified Process)
   • Evolutionary Requirements and Use Cases
   • Applying UML in the Context of OO Software Development
   • OO Analysis and Design (OOAD)
   • Domain Object Modeling
   • Responsibility-Driven Design
   • Essential OO Design
   • Layered Architectures
   • GoF Design Patterns, GRASP, and Best Practices