Course Syllabus	**EECS 3550 – Software Engineering**
Credits & Contact Hours	3 credit hours & three 50-minute lecture contact hours per week.
Coordinator	Dr. Henry Ledgard
Textbook	Software Craftsmanship, Pete McBreen , 2001; The Best Software Writing I, edited by Joel Spolsky, 2005; More Joel on Software, Joel Spolsky, 2008.
Course Information	An introduction to the Software Engineering process. Topics include: the software lifecycle, programming teams, user requirements, human-computer interaction, functional specification, security and performance, software architecture, software design, object-oriented programming, professional programming practice, software tools, testing, and modification. A major project is assigned. Prerequisites: EECS 2510 and ENGL 2950 or 2960 Required course
Specific Goals- Students Learning Objectives (SLOs)	The students will be able to 1. Devise a variety of simple proofs. 2. Learn the canonical metaphor for building large software projects. 3. Review the many other models for developing software projects. 1. Learn the skills required to become a true software craftsman. 2. Learn the roles and skills required for working as a team on a software project. 3. Work in a team to build a software product. 4. Recognize and create a Functional Specification from a set of User Requirements. 5. Be able to define the properties of readable and reusable code. 6. Conduct a specification, design, or code review. 7. Make an effective oral presentation on a technical topic. 8. Be knowledgeable of contemporary issues related to software. 9. Identify some of the software issues that affect society as a whole.

10. Plan and execute lifecycle steps for developing a complex software product.

Topics

1. Software Lifecycle models.
2. Software Requirements.
3. Systems Specification.
4. Architectural Design.
5. Object-oriented Design.
6. User Interface Design.
7. Software Testing.
8. Managing People.
9. Process Improvement.
10. Programming Practice.
11. Working in Teams.
12. Design and Code Reviews.