Course Syllabus	**EECS 3540 – Operating Systems and Systems Programming**
Credits & Contact hours	3 credit hours & three 50-minute lecture contact hours per week.
Coordinator	Dr. Gerald R. Heuring
Textbook	Operating System Concepts, 9th Edition by Silberschatz, Galvin and Gagne, 2012.
Course Information	Examines the external and internal characteristics of computer operating systems and related software. Details of at least one operating system and comparison with other operating systems. An introduction to systems-level programming. Prerequisites: EECS 2110 and EECS 2510 Required course
Specific Goals- Students Learning Objectives (SLOs)	The students will be able to 1. Understand basic CPU scheduling algorithms. 2. Understand basic issues of concurrency. 3. Apply basic operating system vocabulary and understand the evolutionary nature of operating systems. 4. Comprehend the various memory management systems. 5. Understand the concept of a file, and how to access, organize, and protect files. 6. Understand the measures used to enhance security in operating systems.
Topics	1. Introduction to Operating Systems 2. Processes management 3. Threads 4. CPU scheduling 5. Deadlocks 6. Memory and Storage management 7. Main Memory 8. Paging and segmentation 9. Virtual Memory a. Replacement algorithms b. Working set size 10. Disk systems 11. File systems and implementation 12. Protection & Security 13. Distributed systems 14. Virtual machines