

Computer Science and Software Engineering

PROGRAM EDUCATIONAL OBJECTIVES – SOFTWARE ENGINEERING

1. Develop within our graduates the level of technical proficiency needed for the professional practice of software engineering.
2. Develop within our graduates the ability to effectively communicate their ideas to other practicing professionals and to the general public.
3. Instill within our graduates an appreciation for and the ability to engage in lifelong learning.
4. Instill within our graduates an appreciation for and an understanding of the need to maintain high ethical standards both as professionals as well as individuals.
5. Prepare our graduates to compete for positions in the job market and in graduate schools.

PROGRAM OUTCOMES – SOFTWARE ENGINEERING

1. Students will be able to analyze, formulate, and/or derive software requirements for systems or subsystems defined at a high level.
2. Students will be able to design a set of candidate solutions given a problem statement and recommend the best solution by weighing engineering circumstances.
3. Students will be able to express a conceptual solution in a form that is executable by a computer and understandable by fellow engineers.
4. Students will be able to verify and validate a software artifact.
5. Students will be able to select and orchestrate an engineering process model suitable for solving a problem.
6. Students will be able to apply their knowledge of mathematics (particularly discrete mathematics, probability, and statistics) to the modeling, analysis, and measurement of software artifacts and software processes.
7. Students will be able to effectively communicate their engineering work to others in written, oral, and electronic forms.
8. Students will be aware of the need for and of their responsibilities regarding ethical conduct and life-long learning.
9. Students will display knowledge of contemporary issues and the impact of software solutions in a global and societal context.