## **Computer Science Academic Learning Compact**

Computer Science is a new and rapidly growing multi- and interdisciplinary field that uses advanced computing and data analysis to understand and solve complex problems. As a major in Computer Science at New College, you will work closely with faculty who have experience in the classroom, as well as, in the business world to design a personalized plan of study that combines advanced classes in areas like software engineering, computing for bioinformatics, data mining, and networks and algorithms, as well as labs, research and a senior thesis project that includes an extensive programming component. All are designed to give you a hand up when it comes to graduate school admission and career preparation.

As a Computer Science student at New College, you'll develop advanced skills in distributed computing, mathematics, quantitative analysis, computer simulation and modeling, programming and a host of other areas, all of which are designed to prepare you for graduate school and career success.

## **Expected outcomes:**

Expected outcomes of an area of concentration in applied mathematics are the following:

- 1. Demonstrate mastery of the software engineering knowledge and skills, necessary to function as a software engineer.
- 2. Demonstrate the ability to work independently and as part of a team to develop and deliver software products.
- 3. Manage project objectives to find solutions to problems which require balancing resources including time, cost, knowledge, and existing software systems.
- 4. Demonstrate the ability to work effectively with multiple stakeholders in a software development environment.
- 5. Demonstrate the ability to integrate ethical, social, legal, and economic concerns in the construction of software solutions.
- 6. Demonstrate the ability to absorb and effectively apply new development material as it emerges.
- 7. Students demonstrate critical thinking.
- 8. Students demonstrate ability to communicatae effectively about computer science in oral presentations and written reports.

## Measures to track student progress:

The applied mathematics faculty track student progress toward satisfactorily completing an area of concentration in applied mathematics using the following methods: satisfactory evaluations in required courses; a

review of academic performance during the 5<sup>th</sup> semester with the Provisional Area of Concentration form; and a review of academic performance during the 6<sup>th</sup> semester with the Thesis Prospectus form.

## Measures to demonstrate each graduate's competencies:

The applied mathematics faculty use the oral baccalaureate exam and the written thesis project as measures of evidence to demonstrate student competencies.