Undergraduate Curriculum
Program Objectives

• To prepare students with a broad-based technical education in computer science

• To stimulate students to think clearly, be creative, and communicate effectively

• To instill a sense of professional ethics and civic responsibility

• To prepare students for employment in organizations that will utilize their computing skills or to continue their education
New Curriculum

• Designed based on feedback from
  – Faculty
  – Alumni
  – Board of Advocates
  – Exit questionnaire
  – Student evaluations

• Update the curriculum emphasis to most relevant topics

• Provide greater exposure to mainstream technologies

• Places greater emphasis on management of technology lifecycle

• Driven by Strawman for BSCS
Strawman
Required Course Changes

+ Software I & II
+ Database course (Intro. To DB + DB I)
+ Freshman seminar
+ Algorithms
+ Networking & Web-based Computing
+ Capstone
+ Theory
- Numerical Methods/Simulation
- Survey of Programming Languages
- Foundations of Computing
- 2 general electives
- Introduction to Database
- Database Design I/Object Oriented Development
New Course Reports

• Computing Seminar
• Algorithms
• Networking & Web Application
• Capstone
• Theory
• Software I & II
Algorithms

- This course will provide a comprehensive introduction to computer algorithms taken from diverse areas of application. The course will concentrate on algorithms that are of fundamental importance and on analyzing the efficiency of these algorithms.
- Found in most CS curricula
- Already approved as elective
- Prerequisite: 3334 – Data Structures
Networking Course Objectives

• Practice the basics of network programming including the Sockets interface, data encoding, protocol implementation, etc.
• Understand data communication between directly connected hosts
• Learn the issues and primary solutions for problems in internetworking
• Study the various approaches to communication across unreliable networks
• Explore various application-level protocols
Networking Changes

- Modification of existing Data Communications (CSI 4321) course
- Greater focus on application layer
- Reduce focus on details of lower layers
- More technical experience/grounding
- Greater integration in subsequent courses