Program Educational Objectives

Within a few years of graduation, graduates of the computer science program will achieve the following:

1. Graduates of the Computer Science Program will develop the professional skills and the necessary technical knowledge both in breadth and in depth to prepare them for employment and advanced study in Computer Science.
   - Measurement: using Student Learning Outcomes 1, 2 and 3.
2. Graduates of the Computer Science Program will have sufficient awareness of the local and global societal impact of technology and of the related legal and ethical issues in computer science to make decisions regarding their personal and professional responsibilities.
   - Measurement: using Student Learning Outcomes 4 and 5.
3. Graduates of the Computer Science Program will have the critical thinking, communication, teamwork, and leadership skills necessary to function productively and professionally.
   - Measurement: using Student Learning Outcomes 6, 7 and 8.
4. Graduates of the Computer Science Program will be able to demonstrate intellectual curiosity and the independent study skills necessary for life-long learning.

Student Outcomes

1. Software Fundamentals: Graduates will demonstrate their ability to use fundamental computer science knowledge to design, document, implement, and test software solutions to a wide range of problems, using at least two high-level programming languages.

2. Computer Science Technology Skills: Graduates will demonstrate expertise in the main content areas of computer science including. • Discrete and continuous mathematics including skills in logic and proof writing
   - Analysis and design of algorithms
   - Formal languages and computability theory
   - Operating systems
   - Database systems
   - Computer architecture
   - Computer networks and distributed computing concepts

3. Scientific Method: Graduates will be able to gather requirements, analyze, design and conduct simulations or other computer experiments and evaluate and interpret the data generated.

4. Societal Awareness: Graduates will be aware of and understand the impact of computer technology on society at large, on the workplace environment, and on individuals.
5. Ethical Standards: Graduates will be able to recognize and understand the importance of ethical standards as well as their own responsibilities with respect to the computer profession.

6. Collaborative Work Skills: Graduates will demonstrate the ability to work effectively in teams to conduct technical work through the exercise of interpersonal communication skills.

7. Oral Communication Skills: Graduates will demonstrate their ability to communicate clearly.

8. Written Communication Skills: Graduates will demonstrate their ability to write effectively both technical and non-technical materials with appropriate multimedia aids.

9. Continuing Education and Lifelong Learning: Graduates will demonstrate that they can independently acquire new computing related skills and knowledge in order to pursue either further formal or informal learning after graduation.

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