ABET

What is ABET?

- Accreditation Board for Engineering and Technology

- Accredits college and university programs, based of certain criteria.

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Stony Brook Computer Science ABET Prior Visits and Decisions

- 2005: Accredited for 6 years.

- 2011: Accredited for 6 years.

- 2017: Final evaluation visit in Fall 2017.

- Purpose of this presentation: To acquaint the students briefly with the accreditation process (the evaluators may meet with some students during the visit).

ABET Criteria

1. Students
2. Program Education Objectives
3. Student Outcomes
4. Continuous Improvement (of #3)
5. Curriculum
6. Faculty
7. Facilities
8. Institutional Support

1. "Students" Criteria

The program should:

- Evaluate student performance.

- Monitor student progress.

- Advise students.

- Have policies for admissions and transfers.

- Ensure graduates meet the requirements.

2. "Program Education Objectives"

- It is what graduates are expected to attain within a few years of graduation

- Our Program Education Objectives:
  - Establish themselves as practicing professionals or engage in advanced study.
  - Advance professionally through organized training or self-learning.

3. "Student Outcomes" Criteria

The program must enable students to attain certain "learning objectives".

- The CS Program enables the students to achieve, by the time of graduation:

    a) An ability to apply knowledge of computing and mathematics appropriate to the program's student outcomes and to the discipline;

    b) An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;

    c) An ability to design, implement, and evaluate a computer-based system, process, component or program to meet desired needs;

    d) An ability to function effectively on teams to accomplish a common goal;

    e) An understanding of professional, ethical, legal, security and social issues and responsibilities;

    f) An ability to communicate effectively with a range of audiences;

    g) An ability to analyze the local and global impact of computing on individuals, organizations, and society;

    h) Recognition of the need for and an ability to engage in continuing professional development;

    i) An ability to use current techniques, skills, and tools necessary for computing practice;

    j) An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;

    k) An ability to apply design and development principles in the construction of software systems of varying complexity.

5. "Curriculum" Criteria

- The set of required courses must enable attainment of student outcomes

- 1.3 years of coverage of CS topics.

- 1 year of maths and science, with at least 0.5 years of maths.

Questions and More information

- Prof. Himanshu Gupta (hgupta@cs.stonybrook.edu), ABET Coordinator.

- www.abet.org

- Department webpage (link from CSE program)