# ABET

# What is ABET?

- Accreditation Board for Engineering and Technology
- Accredits college and university programs, based of certain criteria.

# 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)