



# ABET Review and Update

---

Jim Rinderle

IAB Meeting, May 4, 2007



## ABET Timeline

---

- Six Year Cycle
- 2007 Cycle
  - Self-study report to COE, June 1, 2007
  - Self-study report to ABET, July 1, 2007
  - Visit, October or November, 2007
  - Draft Report, Responses, Late 2007
  - Final Action, August 2008



# ABET Emphases

---

- Quality Management System
  - Processes for continuous improvement
    - Objectives: Achievement, Refinement
    - Outcomes: Achievement, Refinement
  - Admissions, Transfer Credit, etc.
- Audit
  - Degree requirements
  - Outcomes



## Program Objectives

---

- Broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.
- Must be based on needs of program constituencies.



# Program Objectives

---

1. Think critically, creatively and rigorously and employ engineering methods to identify and solve important problems in industry, government and academe
2. Communicate effectively and function cooperatively in professional contexts.
3. Approach professional practice responsibly and ethically and with an awareness of environmental, cultural, societal and global concerns.
4. Demonstrate professional leadership.
5. Employ their engineering education as a foundation for advanced study, life-long learning and career development in engineering, management and other professional fields.



## Program Outcomes

---

- “What students are expected to know or be able to do by the time of graduation from the program.”
- Must envelope 11 ABET prescribed outcomes, so called ABET 11 or ABET a-k



## ABET Outcomes (1 of 2)

---

- a. An ability to apply knowledge of mathematics, science, and engineering
- b. An ability to design and conduct experiments, as well as to analyze and interpret data
- c. An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- d. An ability to function on multi-disciplinary teams
- e. An ability to identify, formulate, and solve engineering problems



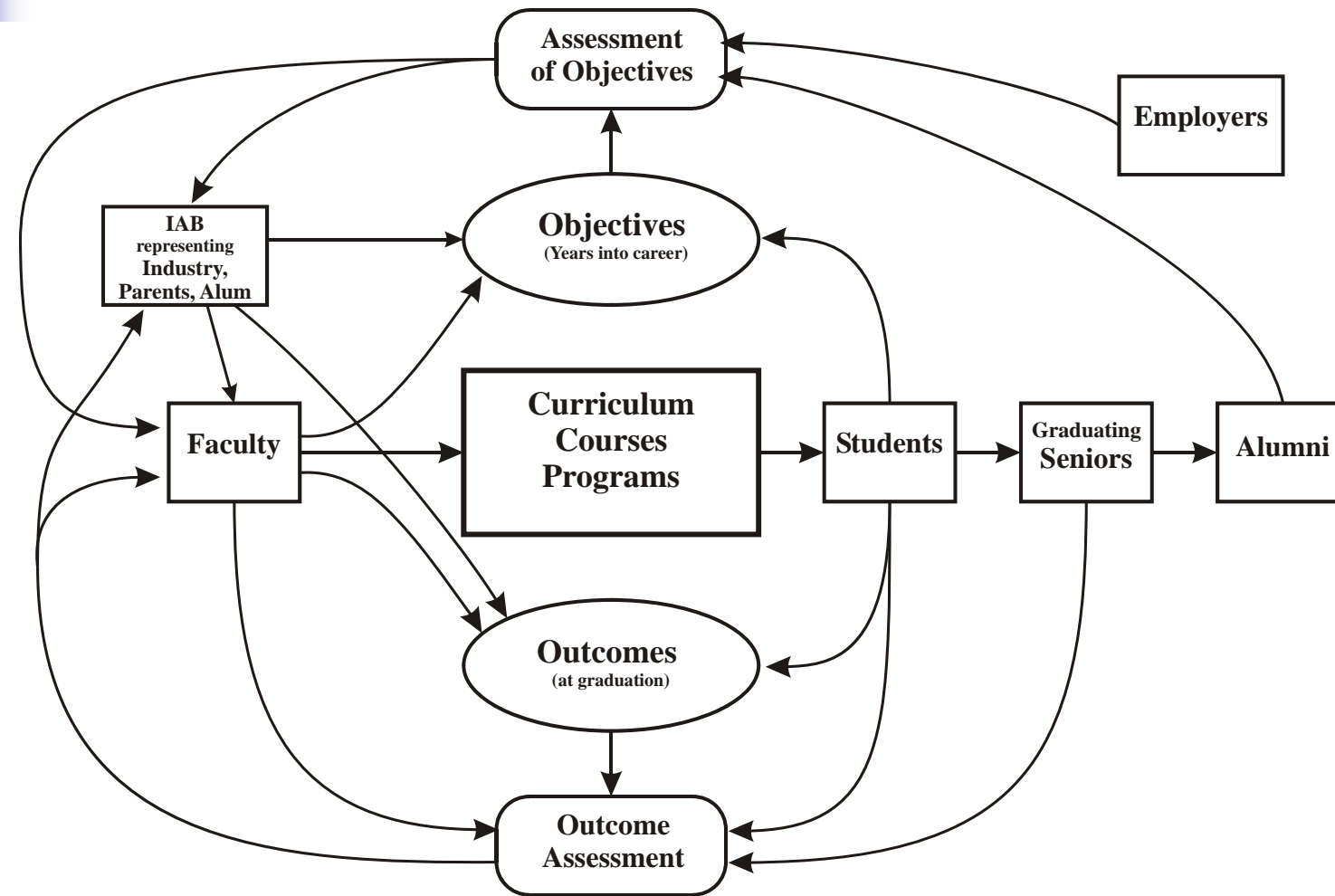
## ABET Outcomes (2 of 2)

---

- f. An understanding of professional and ethical responsibility
- g. An ability to communicate effectively
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- i. A recognition of the need for, and an ability to engage in life-long learning
- j. A knowledge of contemporary issues
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice



# ABET Processes





## ABET Status, Actions

---

- Self-Study Report
  - Comments from IAB
  - Close read
- Objectives and Outcomes
  - IAB as Employers, Parents, Alums
    - Do new grads demonstrate outcome achievement?
    - Do seasoned grads achieve objectives?
  - IAB as vehicle for student opinion



Thanks