State of the Department
Fall 2002 Update

Presentation to External Review Board
October 18, 2002

Overview

- Changes to program educational objectives
- Changes to curriculum
- Faculty changes
- ABET Review – October 20-22, 2002
Program Educational Objectives

- Old objectives expressed purely in terms of “attributes” (outcomes)
- New objectives developed to better follow format suggested by ABET 2000 criteria

Program Educational Objectives

- Provide our students with a broad-based educational experience including an exposure to the liberal arts and a strong foundation in basic math and science
- Maintain a strong program built around four fundamental civil engineering disciplines: geotechnical engineering, structural engineering, transportation engineering, and water resources and environmental engineering
- Develop civil engineering graduates with integrity and a commitment to the gospel of Jesus Christ and who are prepared for life-long service to community, church, and profession
Outcomes

1. An understanding of fundamental principles of mathematics and science
2. An understanding of fundamental engineering science
3. An understanding of geotechnical engineering
4. An understanding of structural engineering

Outcomes, pt II

5. An understanding of transportation engineering
6. An understanding of water resource and environmental engineering
7. The ability to design civil engineering systems and solve open-ended problems
8. The ability to communicate ideas effectively
Outcomes, pt III

9. The ability to use modern engineering tools
10. An understanding of professional practice and a commitment to life-long learning.
11. An awareness of cultural, societal, and environmental issues
12. A commitment to serve as professional engineers of integrity and faith

Curriculum Changes

- New math sequence for engineering majors
  - Two new courses designed specifically for engineering students
  - Changed from 3 to 4 credits
- Eliminated one math/science elective
  - Formerly required two math/science electives
Curriculum Changes, cont.

- Eliminated out of dept. eng. science elective
  - Originally added to program due to ABET requirements
  - No longer required by ABET
- Added additional CE En technical elective
  - Brings us back to three technical electives

Curriculum Changes, cont.

- Old
  - CE En 495 – Communications, 1 credit
  - CE En 370 – Systems design, 3 credits
    - Design principles (design theory, optimization, finance)
    - Statistics
- New
  - CE En 470 – Systems design, 3 credits
    - Design theory
    - Communications
    - Team-based culminating design project
  - CE En 271 – Statistics for CE, 2 credits
Faculty Changes

- New hire: Spencer Guthrie
  - USU/Texas A&M
  - Transportation engineering
- Glen Thurgood on disability
- Olani Durrant retirement postponed
- Les Youd retires in 2003