



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
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Program Educational Objectives

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