



AMERICAN COUNCIL FOR
CONSTRUCTION EDUCATION



ACCE Annual Meeting July 22-26, 2008

Self-Study Workshop

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Workshop Agenda

- Overview of Self-study process
 - Dianne
- Best Practices in Outcomes Assessment (Part IX in Self-Evaluation Report)
 - Tom
- Case Study of Self-Evaluation Report
 - Fred



Contents of Self-Evaluation Report (Document 102)

- I. Introduction
- II. Organization and Administration
- III. Curriculum
- IV. Faculty
- V. Students
- VI. Facilities and Services
- VII. Relations with Industry
- VIII. Published Information to the Public
- IX. General Analysis
- X. Appendices



I. Introduction

- Follow information provided in institutional catalog
 - History of Construction program and location within the institution
- List all agencies that accredit programs across the institution



II. Organization

- Show location of department or program within other units
- Chain of authority for decision-making
- Show that budget for construction program is on par with similar programs within the unit



III. Curriculum

- Matrix of course requirements
 - Breakdown of hours in subject matter or topical area
- Best Practices Workshop July 2006
 - http://www.acce-hq.org/documents/MicrosoftWord-BestPracticeNo1_000.pdf
- Course catalog descriptions of all courses in program
 - Construction
 - General Education
 - Business
 - Engineering, Architecture, or other



IV. Faculty

- Number and qualifications of faculty
- Courses taught in area of expertise
- Involvement with industry



V. Students

- Enrollment statistics
- Student quality statistics
- Graduation and employment statistics
- Construction-related student organizations and activities
- Co-op and internship experiences



VI. Facilities

- Classroom size and equipment
- Computer labs
 - Number of seats
 - Industry-standard software
 - Technical support
- Estimating and plan lay-down areas
- Other laboratory space and equipment
- Library



VII. Relations with Industry

- Industry advisory committee
 - Is representative of local or regional employers
 - Meets regularly
 - Has specified duties and responsibilities
 - Members maintain relationship with the program
 - Contributes to financial support of program



VIII. Published Information

- Accurate information on program
- Updated website
- Brochures and mailings
- Radio spots
- College fairs or high school outreach
- Newsletters to alumni and/or industry



IX. General Analysis

- Program Quality Assessment is crucial



Best Practices in Outcomes Assessment

- Survey was conducted to identify characteristics of good outcomes assessment plans among the accredited programs.
- 2/02 – 7/05, of 50 programs evaluated, 33 were cited for weakness in OA



Basics of Outcome Assessment

1. Define Terminology
2. State/Develop Program Mission
3. Identify/Develop Program Outcomes
 - Clearly stated
 - Measurable
4. Create Assessment Plan



Basics of Outcome Assessment

5. Implement the Assessment Plan
6. Analyze the results of assessment
7. Modify program based on results
 - Document changes
 - Track future data
 - Show if modifications made improvement
 - Adjust again as necessary



RWU Assessment Process

- October 2006 Developed an Assessment Plan
- Conduct Annual Evaluations
 - 2005-2006 Academic Year
 - 2006-2007 Academic Year



Assessment Plan

- School (SECCM)
 - Terminology
 - RWU Mission
 - SECCM Mission
 - SECCM Objectives
 - Constituencies
 - SECCM Change Process
 - Assessment Instruments
- CM
 - Curriculum
 - Program Objectives
 - Program Outcomes
 - Outcomes “mapped” to Objectives
 - Metrics “mapped” to Outcomes

Educational Objectives and Outcomes

Instruments/Materials Used to Assess and Refine Educational Objectives	Information Collected
Student Exit Survey	Program quality Curricular strengths and weaknesses Resource deficiencies Benchmark out the door Personal and professional development Educational environment
Faculty Course Assessment Report	Student rating of course and program objectives Faculty rating of course and program objectives Faculty subjective evaluation Identification of deficiency area
Course Student Survey	Numerical and subjective evaluation of course content Numerical and subjective evaluation of instructor performance Educational value
Faculty Program Assessment Report	Prerequisite deficiencies Resource deficiencies Course impact on program
Alumni Survey	Curricular review Professional preparation Success metrics Licensure Life-long learning Gap analysis
Employers of Graduates	Recruitment and hiring Feedback on preparation for the workplace Feedback on program strengths and weaknesses
Professional Advisory Board Meetings	Review of curriculum Review of student work Industry trends Determinants of engineering success in the workplace
Fundamentals in Engineering Examination	Curricular strengths and weaknesses National comparative benchmarking Licensure of graduates
Certified Professional Constructor Exam	Curricular strengths and weaknesses National comparative benchmarking Licensure of graduates
Senior Design and Construction Showcase	Review of professional component Monitor industry trends Assessment of workplace readiness Assessment of communication skills
Senior Skills Inventory	Assess workplace readiness Identify skill gaps Determine requirements for personal career plan
Senior Job Placement Survey	Identify number of job offers Derive benchmark data on job placement Identify gaps in career advising and placement services



Objectives – Three to Five Years After Graduation, We Expect Our Graduates To:

1. Demonstrate exemplary technical knowledge and skills while achieving success as a practicing constructor and leader, and display the highest standards of ethical conduct.
2. Value the concept of life long learning and continue to grow intellectually while keeping informed of new concepts and developments in the construction process.
3. Advance the construction management profession by becoming actively involved in professional associations and societies, serving in professional and community volunteer positions, and acting as a role model for the future generation of constructors and the Roger Williams University Construction Management students.



CM Program Outcomes

1. An ability to apply knowledge of mathematics and science to typical CM tasks
2. Effective research and problem solving skills applied to typical CM tasks
3. An ability to plan, organize and control a construction project
4. An ability to lead and/or function as a member of a team
5. Students will experience and educationally benefit from quality facilities and equipment, strong industry support and comprehensive extra-curricular activities



CM Outcomes continued:

6. An understanding of professional and ethical responsibility
7. An ability to communicate effectively
8. The broad education necessary to understand the impact of construction in a global, economic, environmental and social context
9. A recognition of the need for, and an ability to engage in lifelong learning
10. A knowledge of contemporary issues

**Outcome g:
an ability to communicate effectively**

Metrics Associated with Outcome g	Where Measured	Met	Comments
1. At least 85% of all mentors and potential employers agree that graduating seniors possess the ability to communicate effectively.	Senior Design Showcase Professional Advisory Board Meetings Graduate Employers		
2. 100% of seniors will have the opportunity in construction classes to make an oral presentation at least twice a month in their senior year.	Course Binders Faculty Course Assessment Report		
3. 100% of all freshmen will have the opportunity in construction classes to make an oral presentation at least once a month.	Course Binders Faculty Course Assessment Report		
4. 100% of graduates will produce an acceptable senior capstone oral report as evaluated by external and internal review.	Transcript Review		
5. At least 90% of alumni report that their RWU education has prepared them extremely well in communication skills for the workplace. "Extremely well" is defined as a 4 or 5 on a five point scale where 1 means no preparation at all and 5 means the RWU education prepared the graduate extremely well for the workplace.	Alumni Survey		



Annual Assessment Report (CM)

- Executive Summary
- Introduction
- Analysis of Evaluation Instruments Data
- Program Assessment
- Assessment of Previously Implemented Program Changes
- Discussion of Recommended Program Changes
- Revised Program Outcomes and Metrics

**Outcome g:
an ability to communicate effectively**

Metrics Associated with Outcome g	Where Measured	Met	Comments
1. At least 85% of all mentors and potential employers agree that graduating seniors possess the ability to communicate effectively.	Senior Design Showcase Professional Advisory Board Meetings Graduate Employers	N/A	Did not measure
2. 100% of seniors will have the opportunity in construction classes to make an oral presentation at least twice a month in their senior year.	Course Binders Faculty Course Assessment Report	Yes	
3. 100% of all freshmen will have the opportunity in construction classes to make an oral presentation at least once a month.	Course Binders Faculty Course Assessment Report	No	Next year's metric will target 2 presentations per semester
4. 100% of graduates will produce an acceptable senior capstone oral report as evaluated by external and internal review.	Transcript Review	Yes	
5. At least 90% of alumni report that their RWU education has prepared them extremely well in communication skills for the workplace. "Extremely well" is defined as a 4 or 5 on a five point scale where 1 means no preparation at all and 5 means the RWU education prepared the graduate extremely well for the workplace.	Alumni Survey	N/A	

**Outcome f:
an ability to communicate effectively**

Metrics Associated with Outcome g	Where Measured	Met	Comments
1. At least 85% of all mentors and potential employers agree that graduating seniors possess the ability to communicate effectively.	Professional Advisory Board Meeting Employer survey Graduate employer survey		
2. 100% of seniors will have the opportunity in construction classes to make an oral presentation at least twice a month in their senior year.	Course Binders Faculty Course Assessment Report		
3. 100% of all freshmen will have the opportunity to make an oral presentation in a construction class at least 2 times per semester.	Course Binders Faculty Course Assessment Report		
4. 100% of graduates will produce an acceptable senior capstone oral report as evaluated by external and internal review.	Transcript Review		
5. At least 90% of alumni report that their RWU education has prepared them extremely well in communication skills for the workplace. "Extremely well" is defined as a 1 or 2 on a five point scale where 1 means proficiency achieved and 5 means proficiency not achieved.	Alumni Survey		

Comments: This is old outcome g. Removed the Showcase metric from #1. On metric #3 Changed the rate of freshmen presentation from 1 X per month to 2 X per semester. On metric # 5 reworked the evaluation such that 1 is best to be consistent with the other evaluation instruments.



Final Thoughts

- “Teething Process” tough
- Needs the support of Dean and/or upper administration
- Since implementation have attained faculty “buy-in”
- Assessment has now become “operationalized” and much easier



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Discussion and Questions