

# The University of Southern Mississippi

## Detailed Assessment Report

As of: 10/01/2013 12:22 PM EST

### 2012-2013 Architectural Engineering Technology BS

(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)

graduates who possess the necessary skills, critical t  
enter the A/E/C industry fully capable of performing e  
the field.

## Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

### **SLO 1:OBJ01 -- ABET General Criteria a**

ACT students will have an ability to select and apply the knowledge, techniques, skills, and modern tools of their disciplines to broadly-defined engineering technology activities. (ABET General Criteria 'a')

#### Related Measures:

#### **M 1:M1.1 -- ABET-GCa -- Assessment Aggregates**

Aggregate of assessments for ABET General Criteria 'a'.

Source of Evidence: Academic direct measure of learning - other

#### **Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET General Criteria 'a'.

#### **Findings (2012-2013) - Target: Met**

94% ( 479 of 512 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'a'. FA12: F-F = 96% ( 236 of 245 ); ONL = 83% ( 15 of 18 ); SP13: F-F = 91% ( 194 of 213 ); ONL = 94% ( 34 of 35 of 2012-19 of 73-TJ -8



**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET General Criteria 'c'.

**Findings (2012-2013) - Target: Met**

92% ( 33 of 36 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'c'. FA12: F-F = 86% ( 12 of 14 ); ONL = 100% ( 4 of 4 ); SP13: F-F = 94% ( 17 of 18 ); ONL = 0% ( 0 of 0 );

**M 6:M3.2 -- ABET-GCc -- Exit2(0 h02(43(E)A( G)Clu8(Cs)9(s)9(es)9(s)9(16(k)9( s)9(am)9( s)iTJ**

**Findings (2012-2013) - Target: Met**

Average of 7 ratings on the evaluation category supporting 2012-2013 ABET General Criteria 'd' was 3.03. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

**SLO 5:OBJ05 -- ABET General Criteria e**

ACT students will have an ability to function effectively as a member or leader on a technical team. (ABET General Criteria 'e')

**Related Measures:**

**a M 9:Tf**

**Findings (2012-2013) - Target: Met**

93% ( 395 of 423 ) of student work samples (projects, exams, quizzes,

**SLO 8:OBJ08 -- ABET General Criteria h**

ACT students will have an understanding of the need for and an ability to engage in self-directed continuing professional development. (ABET General Criteria 'h')

**Related Measures:**

**M 15:M8.1 -- ABET-GCh -- Assessment Aggregates**

Aggregate of assessments for ABET General Criteria 'h'.

Source of Evidence: Academic direct measure of learning - other

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET General Criteria 'h'.

**Findings (2012-2013) - Target: Met**

94% ( 117 of 125 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'h'. FA12: F-F = 95% ( 61 of 64 ); ONL = 100% ( 4 of 4 ); SP13: F-F = 100% ( 18 of 18 ); ONL = 87% ( 34 of 39 );

**M 16:M8.2 -- ABET-GCh -- Exit/Alumni Survey Results**



**Continue to monitor**  
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**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Associate Degree Program Specific Criteria 'b'.

**Findings (2012-2013) - Target: Met**

89% ( 56 of 63 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'b'. FA12: F-F = 96% ( 24 of 25 ); ONL = 50% ( 3 of 6 ); SP13: F-F = 100% ( 6 of 6 ); ONL = 88% ( 23 of 26 );

**M 26:M13.2 -- ABET-ADb -- Exit/Alumni Survey Results**

Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'b'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

Average of scores on the evaluation category supporting ABET Associate Degree Program Specific Criteria 'b' will have a minimum rating of "satisfactory" (3 or higher out of 4).

**Findings (2012-2013) - Target: Met**

Average of 7 ratings on the evaluation category supporting 2012-2013 ABET Associate Degree Program Specific Criteria 'b' was 3.03. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

**SLO 14:OBJ14 -- ABET Associate Criteria c**

ACT graduates are capable of conducting standardized field and laboratory testing on construction materials. (ABET Associate Degree Program Specific Criteria 'c')

**Related Measures:**

**M 27:M14.1 -- ABET-ADc -- Assessment Aggregates**

Aggregate of assessments for ABET Associate Degree Program Specific Criteria 'c'.

Source of Evidence: Academic direct measure of learning - other

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Associate Degree Program Specific Criteria 'c'.

**Findings (2012-2013) - Target: Met**

92% ( 33 of 36 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'c'. FA12: F-F = 86% ( 12 of 14 ); ONL = 100% ( 4 of 4 ); SP13: F-F = 94% ( 17 of 18 ); ONL = 0% ( 0 of 0 );

**M 28:M14.2 -- ABET-ADc -- Exit/Alumni Survey Results**

Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'c'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

Average of scores on the evaluation category supporting ABET Associate Degree Program Specific Criteria 'c' will have a minimum rating of "satisfactory" (3 or higher out of 4).

**Findings (2012-2013) - Target: Met**

Average of 7 ratings on the evaluation category supporting 2012-2013 ABET Associate Degree Program Specific Criteria 'c' was 3.03. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

**SLO 15:OBJ15 -- ABET Associate Criteria d**

ACT graduates are capable of utilizing modern instruments and research techniques for site development and building layout. (ABET Associate Degree Program Specific Criteria 'd')

**Related Measures:**

**M 29:M15.1 -- ABET-ADd -- Assessment Aggregates**

Aggregate of assessments for ABET Associate Degree Program Specific Criteria 'd'.

Source of Evidence: Academic direct measure of learning - other

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Associate Degree Program Specific Criteria 'd'.

**Findings (2012-2013) - Target: Met**

100% ( 61 of 61 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'd'. FA12: F-F = 100% ( 13 of 13 ); ONL = 0% ( 0 of 0 ); SP13: F-F = 100% ( 48 of 48 ); ONL = 0% ( 0 of 0 );

**M 30:M15.2 -- ABET-ADd -- Exit/Alumni Survey Results**

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ACT graduates are capable of determining forces and stresses in elementary structural systems. (ABET Associate Degree Program Specific Criteria 'e')

**Related Measures:**

**M 31:M16.1 -- ABET-ADe -- Assessment Aggregates**

Aggregate of assessments for ABET Associate Degree Program Specific Criteria 'e'.

Source of Evidence: Academic direct measure of learning - other

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Associate Degree Program Specific Criteria 'e'.

**Findings (2012-2013) - Target: Met**

95% ( 108 of 114 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'e'. FA12: F-F = 97% ( 93 of 96 ); ONL = 0% ( 0 of 0 ); SP13: F-F = 0% ( 0 of 0 ); ONL = 83% ( 15 of 18 );

**M 32:M16.2 -- ABET-ADe -- Exit/Alumni Survey Results**

Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'e'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

Average of scores on the evaluation category supporting ABET Associate Degree Program Specific Criteria 'e' will have a minimum rating of "satisfactory" (3 or higher out of 4).

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**Findings (2012-2013) - Target: Met**

97% ( 66 of 68 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'f'. FA12: F-F = 100% ( 7 of 7 ); ONL = 100% ( 2 of 2 ); SP13: F-F = 100% ( 41 of 41 ); ONL = 89% ( 16 of 18 );

**M 34:M17.2 -- ABET-ADf -- Exit/Alumni Survey Results**

Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'f'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

Average of scores on the evaluation category supporting ABET Associate Degree Program Specific Criteria 'f' will have a minimum rating of "satisfactory" (3 or higher out of 4).

**Findings (2012-2013) - Target: Met**

Average of 7 ratings on the evaluation category supporting 2012-2013 ABET Associate Degree Program Specific Criteria 'f' was 3.03. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

**SLO 18:OBJ18 -- ABET Associate Criteria g**

ACT graduates are capable of calculating basic loads and demands in mechanical and electrical systems. (ABET Associate Degree Program Specific Criteria 'g')

**Related Measures:**

**M 35:M18.1 -- ABET-ADg -- Assessment Aggregates**

Aggregate of assessments for ABET Associate Degree Program Specific Criteria 'g'.

Source of Evidence: Academic direct measure of learning - other

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Associate Degree Program Specific Criteria 'g'.

**Findings (2012-2013) - Target: Met**

95% ( 250 of 262 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'g'. FA12: F-F = 97% ( 201 of 208 ); ONL = 0% ( 0 of 0 ); SP13: F-F = 89% ( 39 of 44 ); ONL = 100% ( 10 of 10 );

**M 36:M18.2 -- ABET-ADg -- Exit/Alumni Survey Results**

Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'g'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

Average of scores on the evaluation category supporting ABET Associate

Degree Program Specific Criteria 'g' will have a minimum rating of

Aggregate of assessments for ABET Associate Degree Program Specific Criteria 'i'.

Source of Evidence: Academic direct measure of learning - other

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Associate Degree Program Specific Criteria 'i'.

**Findings (2012-2013) - Target: Met**

83% ( 196 of 235 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Associate Degree Program Specific Criteria 'i'. FA12: F-F = 100% ( 30 of 30 ); ONL = 50% ( 3 of 6 ); SP13: F-F = 81% ( 150 of 186 ); ONL = 100% ( 13 of 13 );

**M 40:M20.2 -- ABET-ADi -- Exit/Alumni Survey Results**

Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'i'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

**M 42:M21.2 -- ABET-BSa -- Exit/Alumni Survey Results**



ABET Baccalaureate Degree Program Specific Criteria 'b' was 3.03. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

**SLO 23:OBJ23 -- ABET BS Criteria c**

ACT graduates are capable of selecting appropriate materials and practices for building construction. (ABET Baccalaureate Degree Program Specific Criteria 'c')

**Related Measures:**

**M 45:M23.1 -- ABET-BSc -- Assessment Aggregates**

Aggregate of assessments for ABET Baccalaureate Degree Program Specific Criteria 'c'.

Source of Evidence: Academic direct measure of learning - other

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'c'.

**Findings (2012-2013) - Target: Met**

94% ( 123 of 131 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'c'.  
FA12: F-F = 95% ( 58 of 61 );0.326 c'.

**Target:**

80% of students receive a score of 70 (out of 100) or better on assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'd'.

**Findings (2012-2013) - Target: Met**

90% ( 142 of 157 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET Baccalaureate Degree Program Specific Criteria 'd'.

FA12: F-F = 84% ( 63 of 75 ); ONL = 0% ( 0 of 0 ); SP13: F-F = 100% ( 48 of 48 ); ONL = 91% ( 31 of 34 );

**M 48:M24.2 -- ABET-BSd -- Exit/Alumni Survey Results**

Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'd'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

Average of scores on the evaluation category supporting ABET Baccalaureate Degree Program Specific Criteria 'd' will have a minimum rating of "satisfactory" (3 or higher out of 4).

**Findings (2012-2013) - Target: Met**

Average of 7 ratings on the evaluation category supporting 2012-2013 ABET Baccalaureate Degree Program Specific Criteria 'd' was 3.03. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'e'.

Source of Evidence: Academic indirect indicator of learning - other

**Target:**

Average of scores on the evaluation category supporting ABET Baccalaureate Degree Program Specific Criteria 'e' will have a minimum rating of "satisfactory" (3 or higher out of 4).

## Details of Action Plans for This Cycle (by Established cycle, then alpha)

### **ACT 262 Architectural Design I**

In this case, 11 of 18 ACT students (61%) are performing at or above 70, which is less than the target level of 80% of total students.

**Established in Cycle:** 2010-2011  
**Implementation Status:** Terminated  
**Priority:** High

#### **Relationships (Measure | Outcome/Objective):**

**Measure:** M11.1 -- ABET-GCk -- Assessment Aggregates | **Outcome/Objective:** OBJ11 -- ABET General Criteria k  
**Measure:** M12.1 -- ABET-ADa -- Assessment Aggregates | **Outcome/Objective:** OBJ12 -- ABET Associate Criteria a

**Implementation Description:** Action plan is to improve student-teacher communication about the requirements of the assessment. Faculty member terminated

**Responsible Person/Group:** Miranda Grieder

### **Continue to monitor**

Small graduate exit survey sample size; but finding close to target--continue to monitor.

**Established in Cycle:** 2012-2013  
**Implementation Status:** In-Progress  
**Priority:** Medium

#### **Relationships (Measure | Outcome/Objective):**

**Measure:** M10.2 -- ABET-GCj -- Exit/Alumni Survey Results |  
**Outcome/Objective:** OBJ10 -- ABET General Criteria j

**Responsible Person/Group:** Fletcher

## Analysis Questions and Analysis Answers

### **What specifically did your assessments show regarding proven strengths or progress you made on outcomes/objectives?**

Since we implemented a course-based approach to assessment in the 2010-2011 cycle, there has been a marked improvement in findings: the average of all outcomes has increased from 87% to 93% in the current 2012-2013 cycle. Indeed, only four criteria

The strength of our approach using course-based findings also requires continued attention since faculty are continually reassigned to new courses. We annually re-present assessment materials to the faculty; and, this year we have three new faculty that will need the presentations to understand the School of Construction approach to course-based findings and how to proactively evaluate their course objective findings for preemptive strategies in course delivery.









