# The University of Southern Mississippi

# Detailed Assessment Report As of: 9/28/2014 02:18 PM EST 2013-2014 Construction Engineering Technology BS\*

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

# **Mission / Purpose**

The University of Southern Mississippi Construction Engineering Technology (BCT) program is committed to producing graduates who possess the necessary skills to enter the A/E/C industry fully capable of performing entry-level tasks at the office and in the field. The graduates' critical thinking, discipline and work ethics will be such that a short period of training and work experience will allow them to move into managerial positions.

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

# SLO 1:OBJ01 -- ABET General Criteria a

BCT 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

M1.1: (ABET-GCa) 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 (2013-2014) - Target: Partially Met

76% (1,529 of 2,019) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'a FA13: F-F = 68% (375 of 549); ONL = 83% (142 of 172); SP14: F-F = 83% (102 of 123); ONL = 77% (910 of 1,175);

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## BCT 205 Surveying

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

## **BCT 486 Project Controls**

Established in Cycle: 2010-2011

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questio...

#### **BCT Coursework Action Plans**

Established in Cycle: 2013-2014

AEC 132 FF SP14 Sketchbook Construction students avoid "Hand sketching" exercises, refuse to submit; Monitor, evalua...

## M 2:M1.2 -- ABET-GCa -- Exit/Alumni Survey Results

M1.2: (ABET-GCa) Exit and Alumni Survey results for ABET General Criteria 'a'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET General Criteria 'a' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'a' was 3.3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

## SLO 2:OBJ02 -- ABET General Criteria b

BCT students will have an ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies. (ABET General Criteria 'b')

**Related Measures:** 

## M 3:M2.1 -- ABET GCb -- Assessment Aggregates

M2.1: (ABET-GCb) Aggregate of assessments for ABET General Criteria 'b'.

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 'b'.

## Findings (2013-2014) - Target: Met

88% (1,373 of 1,561) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'b FA13: F-F = 91% (80 of 88); ONL = 90% (426 of 474); SP14: F-F = 87% (45 of 52); ONL = 87% (822 of 947);

## M 4:M2.2 -- ABET-GCb -- Exit/Alumni Survey Results

M2.2: (ABET-GCb) Exit and Alumni Survey results for ABET General Criteria 'b'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET General Criteria 'b' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## SLO 3:OBJ03 -- ABET General Criteria c

BCT students will have an ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes. (ABET General Criteria 'c')

## **Related Measures:**

## M 5:M3.1 -- ABET-GCc -- Assessment Aggregates

M3.1: (ABET-GCc) Aggregate of assessments for ABET General 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 General Criteria 'c'.

## Findings (2013-2014) - Target: Met

90% (139 of 154) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'c FA13: F-F = 96% (27 of 28); ONL = 83% (43 of 52); SP14: F-F = 100% (26 of 26); ONL = 90% (43 of 48);

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

#### **BCT 205 Surveying**

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

## M 6:M3.2 -- ABET-GCc -- Exit/Alumni Survey Results

M3.2: (ABET-GCc) Exit and Alumni Survey results for ABET General Criteria 'c'.

Source of Evidence: Academic indirect indicator of learning - other

#### Target:

80% of scores on the evaluation category supporting ABET General Criteria 'c' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'b' was 3.3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

# SLO 4:OBJ04 -- ABET General Criteria d

BCT students will have an ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives. (ABET General Criteria 'd')

## **Related Measures:**

## M 7:M4.1 -- ABET-GCd -- Assessment Aggregates

M4.1: (ABET-GCd) Aggregate of assessments for ABET General 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 General Criteria 'd'.

# Findings (2013-2014) - Target: Met

89% (1,073 of 1,201) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'd FA13: F-F = 83% (55 of 66); ONL = 93% (363 of 392); SP14: F-F = 0% (0 of 0); ONL = 88% (655 of 743);

## M 8:M4.2 -- ABET-GCd -- Exit/Alumni Survey Results

M4.2: (ABET-GCd) Exit and Alumni Survey results for ABET General Criteria 'd'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET General Criteria 'd' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## Findings (2013-2014) - Target: Not Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'd' was 2.8. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## Increase Exit Survey Sample

*Established in Cycle:* 2013-2014 Because student degree plan checks did not include completion of the department exit survey, the sample for this measure was sma...

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

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

## **Related Measures:**

#### M 9:M5.1 -- ABET-GCe -- Assessment Aggregates

M5.1: (ABET-GCe) Aggregate of assessments for ABET General Criteria 'e'.

Source of Evidence: Academic direct measure of learning - other

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

# Findings (2013-2014) - Target: Partially Met

74% (998 of 1,354) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'e FA13: F-F = 60% (203 of 338); ONL = 88% (100 of 113); SP14: F-F = 100% (4 of 4); ONL = 77% (691 of 899);

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## **BCT 205 Surveying**

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

# M 10:M5.2 -- ABET-GCe -- Exit/Alumni Survey Results

M5.2: (ABET-GCe) Exit and Alumni Survey results for ABET General Criteria 'e'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET General Criteria 'e' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'e' was 3.1. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

# SLO 6:OBJ06 -- ABET General Criteria f

BCT students will have an ability to identify, analyze, and solve broadly-defined engineering technology problems. (ABET General Criteria 'f')

## **Related Measures:**

#### M 11:M6.1 -- ABET-GCf -- Assessment Aggregates

M6.1: (ABET-GCf) Aggregate of assessments for ABET General Criteria 'f'.

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 'f'.

## Findings (2013-2014) - Target: Met

80% (2,037 of 2,531) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments

supporting ABET General Criteria 'f FA13: F-F = 68% ( 353 of 516 ); ONL = 90% ( 475 of 526 ); SP14: F-F = 90% ( 70 of 78 ); ONL = 81% ( 1,139 of 1,411 );

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

# BCT 205 Surveying

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

## BCT 486 Project Controls

Established in Cycle: 2010-2011

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questio...

## M 12:M6.2 -- ABET-GCf -- Exit/Alumni Survey Results

M6.2: (ABET-GCf) Exit and Alumni Survey results for ABET General Criteria 'f'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET General Criteria 'f' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'f' was 3.3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

## SLO 7:OBJ07 -- ABET General Criteria g

BCT students will have an ability to communicate effectively regarding broadly-defined engineering technology activities. (ABET General Criteria 'g')

## **Related Measures:**

## M 13:M7.1 -- ABET-GCg -- Assessment Aggregates

M7.1: (ABET-GCg) Aggregate of assessments for ABET General 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 General Criteria 'g'.

## Findings (2013-2014) - Target: Partially Met

79% (1,690 of 2,137) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'g FA13: F-F = 74% (414 of 560); ONL

= 87% ( 205 of 235 ); SP14: F-F = 87% ( 164 of 188 ); ONL = 79% ( 907 of 1,154 );

## Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

#### **BCT Coursework Action Plans**

Established in Cycle: 2013-2014

AEC 132 FF SP14 Sketchbook Construction students avoid "Hand sketching" exercises, refuse to submit; Monitor, evalua...

## M 14:M7.2 -- ABET-GCg -- Exit/Alumni Survey Results

M7.2: (ABET-GCg) Exit and Alumni Survey results for ABET General Criteria 'g'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET General Criteria 'g' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'g' was 3.3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

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

BCT 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

M8.1: (ABET-GCh) 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 (2013-2014) - Target: Met

86% ( 379 of 443 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'h FA13: F-F = 85% ( 63 of 74 ); ONL = 85% ( 100 of 118 ); SP14: F-F = 88% ( 23 of 26 ); ONL = 86% ( 193 of 225 );

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

M8.2: (ABET-GCh) Exit and Alumni Survey results for ABET General Criteria 'h'.

Source of Evidence: Academic indirect indicator of learning - other

80% of scores on the evaluation category supporting ABET General Criteria 'h' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'h' was 3.3. (4 =Very True; 3 =True; 2 =Somewhat True; 1 =Not True)

# SLO 9:OBJ09 -- ABET General Criteria i

BCT students will have an understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity. (ABET General Criteria 'i')

## **Related Measures:**

## M 17:M9.1 -- ABET-GCi -- Assessment Aggregates

M9.1: (ABET-GCi) Aggregate of assessments for ABET General 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 General Criteria 'i'.

#### Findings (2013-2014) - Target: Met

86% (913 of 1,067) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'i FA13: F-F = 90% (255 of 282); ONL = 86% (84 of 98); SP14: F-F = 92% (12 of 13); ONL = 83% (562 of 674);

#### M 18:M9.2 -- ABET-GCi -- Exit/Alumni Survey Results

M9.2: (ABET-GCi) Exit and Alumni Survey results for ABET General Criteria 'i'.

Source of Evidence: Academic indirect indicator of learning - other

## **Target:**

80% of scores on the evaluation category supporting ABET General Criteria 'i' will have a minimum rating of "satisfactory" (3 or higher out of 5).

#### Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'i' was 3.3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

#### SLO 10:OBJ10 -- ABET General Criteria j

BCT students will have a knowledge of the impact of engineering technology solutions in a societal and global context. (ABET General Criteria 'j')

**Related Measures:** 

#### M 19:M10.1 -- ABET-GCj -- Assessment Aggregates

M10.1: (ABET-GCj) Aggregate of assessments for ABET General Criteria 'j'.

Source of Evidence: Academic direct measure of learning - other

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

## Findings (2013-2014) - Target: Not Met

71% ( 390 of 548 ) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'j FA13: F-F = 66% ( 118 of 180 ); ONL = 0% ( 0 of 0 ); SP14: F-F = 0% ( 0 of 0 ); ONL = 74% ( 272 of 368 );

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## **BCT Coursework Action Plans**

Established in Cycle: 2013-2014

AEC 132 FF SP14 Sketchbook Construction students avoid "Hand sketching" exercises, refuse to submit; Monitor, evalua...

## M 20:M10.2 -- ABET-GCj -- Exit/Alumni Survey Results

M10.2: (ABET-GCj) Exit and Alumni Survey results for ABET General Criteria 'j'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET General Criteria 'j' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'j' was 3.1. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

# SLO 11:OBJ11 -- ABET General Criteria k

BCT students will have a commitment to quality, timeliness, and continuous improvement. (ABET General Criteria 'k')

#### **Related Measures:**

## M 21:M11.1 -- ABET-GCk -- Assessment Aggregates

M11.1: (ABET-GCk) Aggregate of assessments for ABET General Criteria 'k'.

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 'k'.

## Findings (2013-2014) - Target: Met

89% (1,329 of 1,500) of student work samples (projects, exams, quizzes, papers) were scored 70 (out of 100) or better on all assessments supporting ABET General Criteria 'k FA13: F-F = 87% (346 of 399); ONL

= 88% ( 184 of 209 ); SP14: F-F = 89% ( 93 of 104 ); ONL = 90% ( 706 of 788 );

## Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

#### BCT 205 Surveying

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

## M 22:M11.2 -- ABET-GCk -- Exit/Alumni Survey Results

M11.2: (ABET-GCk) Exit and Alumni Survey results for ABET General Criteria 'k'.

Source of Evidence: Academic indirect indicator of learning - other

#### Target:

80% of scores on the evaluation category supporting ABET General Criteria 'k' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET General Criteria 'k' was 3.2. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

## SLO 12:OBJ12 -- ABET Associate Criteria a

BCT graduates are capable of utilizing modern instruments, methods and techniques to implement construction contracts, documents, and codes. (ABET Associate Degree Program Specific Criteria 'a')

**Related Measures:** 

## M 23:M12.1 -- ABET-ADa -- Assessment Aggregates

M12.1: (ABET-ADa) Aggregate of assessments for ABET Associate Degree Program Specific 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 Associate Degree Program Specific Criteria 'a'.

#### Findings (2013-2014) - Target: Met

83% (591 of 713) 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 'a FA13: F-F = 76% (227 of 299); ONL = 83% (95 of 114); SP14: F-F = 100% (17 of 17); ONL = 89% (252 of 283);

# Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

# **BCT 205 Surveying**

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

## **BCT 486 Project Controls**

Established in Cycle: 2010-2011

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questio...

## M 24:M12.2 -- ABET-ADa -- Exit/Alumni Survey Results

M12.2: (ABET-ADa) Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'a'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET Associate Degree Program Specific Criteria 'a' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## SLO 13:OBJ13 -- ABET Associate Criteria b

BCT graduates are capable of evaluating materials and methods for construction projects. (ABET Associate Degree Program Specific Criteria 'b')

## **Related Measures:**

#### M 25:M13.1 -- ABET-ADb -- Assessment Aggregates

M13.1: (ABET-ADb) Aggregate of assessments for ABET Associate Degree Program Specific Criteria 'b'.

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 'b'.

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

M13.2: (ABET-ADb) Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'b'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% 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 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014

ABET Associate Degree Program Specific Criteria 'b' was 3.1. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

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

BCT graduates are capable of utilizing modern surveying methods for construction layout. (ABET Associate Degree Program Specific Criteria 'c')

## **Related Measures:**

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

M14.1: (ABET-ADc) 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 (2013-2014) - Target: Met

91% (177 of 195) 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 FA13: F-F = 96% (27 of 28); ONL = 83% (59 of 71); SP14: F-F = 100% (30 of 30); ONL = 92% (61 of 66);

Related Action Plans (by Established cycle, then alpha):

For full information, see the *Details of Action Plans* section of this report.

#### BCT 205 Surveying

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

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

M14.2: (ABET-ADc) Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'c'.

Source of Evidence: Academic indirect indicator of learning - other

#### Target:

80% 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 5).

## Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Associate Degree Program Specific Criteria 'c' was 3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

# SLO 15:OBJ15 -- ABET Associate Criteria d

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

**Related Measures:** 

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

M15.1: (ABET-ADd) 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 (2013-2014) - Target: Met

93% ( 38 of 41 ) 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 FA13: F-F = 0% ( 0 of 0 ); ONL = 84% ( 16 of 19 ); SP14: F-F = 100% ( 4 of 4 ); ONL = 100% ( 18 of 18 );

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

M15.2: (ABET-ADd) Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'd'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET Associate Degree Program Specific Criteria 'd' will have a minimum rating of "satisfactory" (3 or higher out of 5).

## Findings (2013-2014) - Target: Not Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Associate Degree Program Specific Criteria 'd' was 2.9. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## Increase Exit Survey Sample

*Established in Cycle:* 2013-2014 Because student degree plan checks did not include completion of the department exit survey, the sample for this measure was sma...

## SLO 16:OBJ16 -- ABET Associate Criteria e

BCT graduates are capable of estimating material quantities and costs. (ABET Associate Degree Program Specific Criteria 'e')

## **Related Measures:**

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

M16.1: (ABET-ADe) 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 (2013-2014) - Target: Met

84% (1,271 of 1,514) 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 FA13: F-F = 55% (72 of 132); ONL = 92% (441 of 480); SP14: F-F = 0% (0 of 0); ONL = 84% (758 of 902);

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## BCT 480 Safety

Established in Cycle: 2010-2011

The 6 students who did not perform well on the OSHA self-test did not understand the content covered in order to do well o...

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

M16.2: (ABET-ADe) Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'e'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% 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 5).

#### Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Associate Degree Program Specific Criteria 'e' was 3.2. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

## SLO 17:OBJ17 -- ABET Associate Criteria f

BCT graduates are capable of employing productivity software to solve technical problems. (ABET Associate Degree Program Specific Criteria 'f')

**Related Measures:** 

## M 33:M17.1 -- ABET-ADf -- Assessment Aggregates

M17.1: (ABET-ADf) Aggregate of assessments for ABET Associate Degree Program Specific Criteria 'f'.

Source of Evidence: Academic direct measure of learning - other

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

# Findings (2013-2014) - Target: Met

90% (229 of 254) 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 FA13: F-F = 103% (40 of 39); ONL = 78% (69 of 89); SP14: F-F = 85% (11 of 13); ONL = 96% (109 of 113);

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## BCT 205 Surveying

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

## BCT 486 Project Controls

Established in Cycle: 2010-2011

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questio...

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

M17.2: (ABET-ADf) Exit and Alumni Survey results for ABET Associate Degree Program Specific Criteria 'f'.

Source of Evidence: Academic indirect indicator of learning - other

#### Target:

80% 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 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Associate Degree Program Specific Criteria 'f' was 3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

## SLO 18:OBJ18 -- ABET BS Criteria a

BCT graduates are capable of producing and utilizing design, construction, and operations documents. (ABET Baccalaureate Degree Program Specific Criteria 'a')

## **Related Measures:**

#### M 35:M18.1 -- ABET-BSa -- Assessment Aggregates

M18.1: (ABET-BSa) Aggregate of assessments for ABET Baccalaureate Degree Program Specific 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 Baccalaureate Degree Program Specific Criteria 'a'.

# Findings (2013-2014) - Target: Met

86% (711 of 827) 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 'a FA13: F-F = 84% (233 of 276); ONL = 84% (117 of 140); SP14: F-F = 97% (29 of 30); ONL = 87% (332 of 381);

# Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## **BCT 205 Surveying**

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

# **BCT 486 Project Controls**

Established in Cycle: 2010-2011

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questio...

## M 36:M18.2 -- ABET-BSa -- Exit/Alumni Survey Results

M18.2: (ABET-BSa) Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'a'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET Baccalaureate Degree Program Specific Criteria 'a' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Baccalaureate Degree Program Specific Criteria 'a' was 3.1. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

# SLO 19:OBJ19 -- ABET BS Criteria b

BCT graduates are capable of performing economic analyses and cost estimates related to design, construction, and maintenance of systems in the construction technical specialties. (ABET Baccalaureate Degree Program Specific Criteria 'b')

# **Related Measures:**

# M 37:M19.1 -- ABET-BSb -- Assessment Aggregates

M19.1: (ABET-BSb) Aggregate of assessments for ABET Baccalaureate Degree Program Specific Criteria 'b'.

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 'b'.

## Findings (2013-2014) - Target: Met

83% (861 of 1,034) 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 'b FA13: F-F = 82% (282 of 346); ONL = 86% (132 of 154); SP14: F-F = 88% (15 of 17); ONL = 84% (432 of 517);

## Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## **BCT 486 Project Controls**

Established in Cycle: 2010-2011

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questio...

#### M 38:M19.2 -- ABET-BSb -- Exit/Alumni Survey Results

M19.2: (ABET-BSb) Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'b'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET Baccalaureate Degree Program Specific Criteria 'b' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Baccalaureate Degree Program Specific Criteria 'b' was 3.1. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

#### SLO 20:OBJ20 -- ABET BS Criteria c

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

**Related Measures:** 

#### M 39:M20.1 -- ABET-BSc -- Assessment Aggregates

M20.1: (ABET-BSc) Aggregate of assessments for ABET Baccalaureate Degree Program Specific Criteria 'c'.

Source of Evidence: Academic direct measure of learning - other

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

### Findings (2013-2014) - Target: Met

90% (564 of 627) 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 FA13: F-F = 90% (123 of 136); ONL = 86% (133 of 155); SP14: F-F = 96% (66 of 69); ONL = 91% (242 of 267);

## M 40:M20.2 -- ABET-BSc -- Exit/Alumni Survey Results

M20.2: (ABET-BSc) Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'c'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% of scores on the evaluation category supporting ABET Baccalaureate Degree Program Specific Criteria 'c' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Baccalaureate Degree Program Specific Criteria 'c' was 3.1. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

## SLO 21:OBJ21 -- ABET BS Criteria d

BCT graduates are capable of applying principles of construction law and ethics. (ABET Baccalaureate Degree Program Specific Criteria 'd')

## **Related Measures:**

## M 41:M21.1 -- ABET-BSd -- Assessment Aggregates

M21.1: (ABET-BSd) Aggregate of assessments for ABET Baccalaureate 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 Baccalaureate Degree Program Specific Criteria 'd'.

## Findings (2013-2014) - Target: Met

80% (582 of 731) 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 FA13: F-F = 69% (130 of 189); ONL = 84% (16 of 19); SP14: F-F = 100% (4 of 4); ONL = 83% (432 of 519);

## M 42:M21.2 -- ABET-BSd -- Exit/Alumni Survey Results

M21.2: (ABET-BSd) Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'd'.

Source of Evidence: Academic indirect indicator of learning - other

## Target:

80% 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 5).

## Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Baccalaureate Degree Program Specific Criteria 'd' was 3.1. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

#### SLO 22:OBJ22 -- ABET BS Criteria e

BCT graduates are capable of applying basic technical concepts to the solution of construction problems involving hydraulics and hydrology, geotechnics, structures, construction scheduling and management, and construction safety. (ABET Baccalaureate Degree Program Specific Criteria 'e')

## **Related Measures:**

#### M 43:M22.1 -- ABET-BSe -- Assessment Aggregates

M22.1: (ABET-BSe) Aggregate of assessments for ABET Baccalaureate 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 Baccalaureate Degree Program Specific Criteria 'e'.

## Findings (2013-2014) - Target: Met

85% (1,936 of 2,273) 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 'e FA13: F-F = 75% (261 of 348); ONL = 90% (484 of 537); SP14: F-F = 92% (36 of 39); ONL = 86% (1,155 of 1,349);

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

# **BCT 486 Project Controls**

Established in Cycle: 2010-2011

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questio...

# M 44:M22.2 -- ABET-BSe -- Exit/Alumni Survey Results

M22.2: (ABET-BSe) Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'e'.

Source of Evidence: Academic indirect indicator of learning - other

80% 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 5).

## Findings (2013-2014) - Target: Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Baccalaureate Degree Program Specific Criteria 'e' was 3. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

## SLO 23:OBJ23 -- ABET BS Criteria f

BCT graduates are capable of performing standard analysis and design in at least one recognized technical specialty within construction engineering technology that is appropriate to the goals of the program. (ABET Baccalaureate Degree Program Specific Criteria 'f')

## **Related Measures:**

## M 45:M23.1 -- ABET-BSf -- Assessment Aggregates

M23.1: (ABET-BSf) Aggregate of assessments for ABET Baccalaureate Degree Program Specific Criteria 'f'.

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 'f'.

#### Findings (2013-2014) - Target: Met

84% (1,402 of 1,667) 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 'f FA13: F-F = 77% (241 of 312); ONL = 93% (367 of 396); SP14: F-F = 0% (0 of 0); ONL = 83% (794 of 959);

# Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

## BCT 205 Surveying

Established in Cycle: 2010-2011

Review and help sessions will be conducted before midterm and final exam.

#### M 46:M23.2 -- ABET-BSf -- Exit/Alumni Survey Results

M23.2: (ABET-BSf) Exit and Alumni Survey results for ABET Baccalaureate Degree Program Specific Criteria 'f'.

Source of Evidence: Academic indirect indicator of learning - other

#### Target:

80% of scores on the evaluation category supporting ABET Baccalaureate

Degree Program Specific Criteria 'f' will have a minimum rating of "satisfactory" (3 or higher out of 5).

# Findings (2013-2014) - Target: Not Met

Average of 19 ratings on the evaluation category supporting 2013-2014 ABET Baccalaureate Degree Program Specific Criteria 'f' was 2.9. (4 = Very True; 3 = True; 2 = Somewhat True; 1 = Not True)

Related Action Plans (by Established cycle, then alpha):

For full information, see the Details of Action Plans section of this report.

# Increase Exit Survey Sample

*Established in Cycle:* 2013-2014 Because student degree plan checks did not include completion of the department exit survey, the sample for this measure was sma...

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

### **BCT 205 Surveying**

Review and help sessions will be conducted before midterm and final exam.

Established in Cycle: 2010-2011 Implementation Status: Terminated Priority: Low

Relationships (Measure | Outcome/Objective): Measure: M1.1 -- ABET-GCa -- Assessment Aggregates | Outcome/Objective: **OBJ01** -- ABET General Criteria a **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 Measure: M14.1 -- ABET-ADc -- Assessment Aggregates | Outcome/Objective: OBJ14 -- ABET Associate Criteria c **Measure:** M17.1 -- ABET-ADf -- Assessment Aggregates | **Outcome/Objective:** OBJ17 -- ABET Associate Criteria f Measure: M18.1 -- ABET-BSa -- Assessment Aggregates | Outcome/Objective: OBJ18 -- ABET BS Criteria a Measure: M23.1 -- ABET-BSf -- Assessment Aggregates | Outcome/Objective: **OBJ23** -- ABET BS Criteria f **Measure:** M3.1 -- ABET-GCc -- Assessment Aggregates | **Outcome/Objective:** OBJ03 -- ABET General Criteria c **Measure:** M5.1 -- ABET-GCe -- Assessment Aggregates | **Outcome/Objective**: OBJ05 -- ABET General Criteria e Measure: M6.1 -- ABET-GCf -- Assessment Aggregates | Outcome/Objective: **OBJ06** -- ABET General Criteria f

## BCT 480 Safety

The 6 students who did not perform well on the OSHA self-test did not understand the content covered in order to do well on the test. The instructor is revisiting the content

and providing the students mutiple exposure and examples to key facts and concepts in an effort to improve retention of the material.

Established in Cycle: 2010-2011 Implementation Status: In-Progress Priority: Medium

## Relationships (Measure | Outcome/Objective): Measure: M16.1 -- ABET-ADe -- Assessment Aggregates | Outcome/Objective: OBJ16 -- ABET Associate Criteria e

**Responsible Person/Group:** Doris Kemp

## **BCT 486 Project Controls**

Average scores were all passing with exception of 1 quiz. Some had perfect scores. Plan to evaluate low scoring questions and reword or add teaching material. Average on all assignments was 70%, seven had 90% or above. Assignments require use of software, discipline, and time, especially in online course. Grading was liberal. Students are offered hrs of video examples plus help sessions. I feel onus on the student side and plan no change. This assessment reflects progress or (or lack of) on the assignments as it is a cummulative product/submission--it reflects that some students went back and corrected prior assignments. The course student evaluations are high-some of this may have to do with our pre-requisite issues, which we are attempting to solve with 8wk1 and 8wk2 course delivery. Research low score areas and increase emphasis in review and instruction--difficult in 8wk sessions. Avg test scores were 25% higher than pre-test. The problem here was the earned value concepts--it needs more instruction and I am challenged with time vs content (8wk vs 16 wk)--I still think 8 wk is the way to go and await results in this semester's 8 wk session in which I will accelerate for time on this topic.

Established in Cycle: 2010-2011 Implementation Status: In-Progress Priority: Medium

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

Measure: M1.1 -- ABET-GCa -- Assessment Aggregates | Outcome/Objective: OBJ01 -- ABET General Criteria a Measure: M12.1 -- ABET-ADa -- Assessment Aggregates | Outcome/Objective: OBJ12 -- ABET Associate Criteria a Measure: M17.1 -- ABET-ADf -- Assessment Aggregates | Outcome/Objective: OBJ17 -- ABET Associate Criteria f Measure: M18.1 -- ABET-BSa -- Assessment Aggregates | Outcome/Objective: OBJ18 -- ABET BS Criteria a Measure: M19.1 -- ABET-BSb -- Assessment Aggregates | Outcome/Objective: OBJ19 -- ABET BS Criteria b Measure: M22.1 -- ABET-BSe -- Assessment Aggregates | Outcome/Objective: OBJ22 -- ABET BS Criteria b Measure: M6.1 -- ABET-GCf -- Assessment Aggregates | Outcome/Objective: OBJ26 -- ABET General Criteria f

Responsible Person/Group: Jeff hannon

## **BCT Coursework Action Plans**

AEC 132 FF SP14 Sketchbook Construction students avoid "Hand sketching" exercises, refuse to submit; Monitor, evaluate & obtain feedback on why this trend is obvious to BCT and adapt Final Exercise 14/22 ACT-BCT Students opted not to submit the final or submitted it grossly incomplete; Monitor, prepare students better for the reality of a culmulative final & time commitment; Final Exam 13/22 Students opted not to submit the final or submitted it grossly incomplete; Monitor, prepare students better for the reality of a culmulative final & time commitment AEC 270 ONL SP14 5. Homework 5 Cheating was discovered, so multiple students received a "0" for this assignment. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. AEC 444 ONL SP14 ASSIGNMENT 1 improve review materials AEC 454 FF FA13 3. Assignment 3 Cheating was discovered, so multiple students received a "0" for this assignment. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. 5. Assignment 5 Cheating was discovered, so multiple students received a "0" for their submission. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. AEC 496 ONL FA13 4. Implement conversation between instructor/supervisor Low numbers of students: no action required BCT 480 FF FA13 6. Exam #2 ---covers Electrical through Record Keeping Students indicated they did not prepare well for exam because they had other exams that same day; no action required. BCT 480 ONL FA13 4. Exam 1 --covers Intro through Tools Students indicated they did not prepare well for exam; no action required. BCT 336 FF FA13 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the guiz covers 8 Final Exam Explicitly mention what the finals covers BCT 336 ONL SP14 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the quiz covers 6 Team Assignment II Stress on the intensity of the course, from the beginning 8 Final Exam Stress on the intensity of the course, from the beginning BCT 374 FF FA13 1 Quiz I Explicitly mention what the guiz covers 2 Quiz II Explicitly mention what the quiz covers 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the guiz covers 9 Final Exam Explicitly mention what the guiz covers BCT 374 ONL SP14 1 Quiz I Monitor 2 Quiz II Monitor 3 Quiz III Monitor 5 Team Assignment I Monitor 6 Team Assignment II Monitor 9 Final Exam Monitor BCT 477 FF FA13 1 Quiz I Moniter, small sample 2 Quiz II Moniter, small sample 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the quiz covers 9 Final Exam Moniter, small sample BCT 477 ONL SP14 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Stress on the intensity of the course, from the beginning BCT 455/L ONL FA13 Project 1 No action required -- developmental process: students progressively improve on next two projects BCT 455/L ONL FA13 Project 1 No action required -- developmental process: students progressively improve on second project Project 3 Reduce scope of project

Established in Cycle: 2013-2014 Implementation Status: Planned Priority: High

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

**Measure:** M7.1 -- ABET-GCg -- Assessment Aggregates | **Outcome/Objective:** OBJ07 -- ABET General Criteria g

**Responsible Person/Group:** Jeff Hannon (Coordinator)

## **BCT Coursework Action Plans**

AEC 132 FF SP14 Sketchbook Construction students avoid "Hand sketching" exercises, refuse to submit: Monitor, evaluate & obtain feedback on why this trend is obvious to BCT and adapt Final Exercise 14/22 ACT-BCT Students opted not to submit the final or submitted it grossly incomplete; Monitor, prepare students better for the reality of a culmulative final & time commitment; Final Exam 13/22 Students opted not to submit the final or submitted it grossly incomplete; Monitor, prepare students better for the reality of a culmulative final & time commitment AEC 270 ONL SP14 5. Homework 5 Cheating was discovered, so multiple students received a "0" for this assignment. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. AEC 444 ONL SP14 ASSIGNMENT 1 improve review materials AEC 454 FF FA13 3. Assignment 3 Cheating was discovered, so multiple students received a "0" for this assignment. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. 5. Assignment 5 Cheating was discovered, so multiple students received a "0" for their submission. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. AEC 496 ONL FA13 4. Implement conversation between instructor/supervisor Low numbers of students: no action required BCT 480 FF FA13 6. Exam #2 --- covers Electrical through Record Keeping Students indicated they did not prepare well for exam because they had other exams that same day; no action required. BCT 480 ONL FA13 4. Exam 1 --covers Intro through Tools Students indicated they did not prepare well for exam; no action required. BCT 336 FF FA13 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the quiz covers 8 Final Exam Explicitly mention what the finals covers BCT 336 ONL SP14 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Explicitly mention what the guiz covers 4 Quiz IV Explicitly mention what the guiz covers 6 Team Assignment II Stress on the intensity of the course, from the beginning 8 Final Exam Stress on the intensity of the course, from the beginning BCT 374 FF FA13 1 Quiz I Explicitly mention what the guiz covers 2 Quiz II Explicitly mention what the quiz covers 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the quiz covers 9 Final Exam Explicitly mention what the quiz covers BCT 374 ONL SP14 1 Quiz I Monitor 2 Quiz II Monitor 3 Quiz III Monitor 5 Team Assignment I Monitor 6 Team Assignment II Monitor 9 Final Exam Monitor BCT 477 FF FA13 1 Quiz I Moniter, small sample 2 Quiz II Moniter, small sample 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the quiz covers 9 Final Exam Moniter, small sample BCT 477 ONL SP14 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Stress on the intensity of the course, from the beginning BCT 455/L ONL FA13 Project 1 No action required -- developmental process: students progressively improve on next two projects BCT 455/L ONL FA13 Project 1 No action

required -- developmental process: students progressively improve on second project Project 3 Reduce scope of project

Established in Cycle: 2013-2014 Implementation Status: Planned Priority: High

# Relationships (Measure | Outcome/Objective):

**Measure:** M10.1 -- ABET-GCj -- Assessment Aggregates | **Outcome/Objective:** OBJ10 -- ABET General Criteria j

Responsible Person/Group: Jeff Hannon (Coordinator)

## **BCT Coursework Action Plans**

AEC 132 FF SP14 Sketchbook Construction students avoid "Hand sketching" exercises, refuse to submit; Monitor, evaluate & obtain feedback on why this trend is obvious to BCT and adapt Final Exercise 14/22 ACT-BCT Students opted not to submit the final or submitted it grossly incomplete; Monitor, prepare students better for the reality of a culmulative final & time commitment; Final Exam 13/22 Students opted not to submit the final or submitted it grossly incomplete; Monitor, prepare students better for the reality of a culmulative final & time commitment AEC 270 ONL SP14 5. Homework 5 Cheating was discovered, so multiple students received a "0" for this assignment. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. AEC 444 ONL SP14 ASSIGNMENT 1 improve review materials AEC 454 FF FA13 3. Assignment 3 Cheating was discovered, so multiple students received a "0" for this assignment. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. 5. Assignment 5 Cheating was discovered, so multiple students received a "0" for their submission. Remediation: Course delivery has been altered to reduce cheating. Assignments are graded but awarded less credit towards the student's overall grade. Exams are now proctored, ensuring each student understands and retains the course materials. AEC 496 ONL FA13 4. Implement conversation between instructor/supervisor Low numbers of students: no action required BCT 480 FF FA13 6. Exam #2 ---covers Electrical through Record Keeping Students indicated they did not prepare well for exam because they had other exams that same day; no action required. BCT 480 ONL FA13 4. Exam 1 --covers Intro through Tools Students indicated they did not prepare well for exam; no action required. BCT 336 FF FA13 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the guiz covers 8 Final Exam Explicitly mention what the finals covers BCT 336 ONL SP14 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the quiz covers 6 Team Assignment II Stress on the intensity of the course, from the beginning 8 Final Exam Stress on the intensity of the course, from the beginning BCT 374 FF FA13 1 Quiz I Explicitly mention what the guiz covers 2 Quiz II Explicitly mention what the guiz covers 3 Quiz III Explicitly mention what the guiz covers 4 Quiz IV Explicitly mention what the quiz covers 9 Final Exam Explicitly mention what the quiz covers BCT 374 ONL SP14 1 Quiz I Monitor 2 Quiz II Monitor 3 Quiz III Monitor 5 Team Assignment I Monitor 6 Team Assignment II Monitor 9 Final Exam Monitor BCT 477 FF

FA13 1 Quiz I Moniter, small sample 2 Quiz II Moniter, small sample 3 Quiz III Explicitly mention what the quiz covers 4 Quiz IV Explicitly mention what the quiz covers 9 Final Exam Moniter, small sample BCT 477 ONL SP14 1 Quiz I Stress on the intensity of the course, from the beginning 2 Quiz II Stress on the intensity of the course, from the beginning 3 Quiz III Stress on the intensity of the course, from the beginning BCT 455/L ONL FA13 Project 1 No action required -- developmental process: students progressively improve on next two projects BCT 455/L ONL FA13 Project 1 No action required -- developmental process: students progressively improve on second project Project 3 Reduce scope of project

Established in Cycle: 2013-2014 Implementation Status: Planned Priority: High

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

**Measure:** M1.1 -- ABET-GCa -- Assessment Aggregates | **Outcome/Objective:** OBJ01 -- ABET General Criteria a

Responsible Person/Group: Jeff Hannon (Coordinator)

## Increase Exit Survey Sample

Because student degree plan checks did not include completion of the department exit survey, the sample for this measure was small.

Established in Cycle: 2013-2014 Implementation Status: Planned Priority: High

Relationships (Measure | Outcome/Objective): Measure: M15.2 -- ABET-ADd -- Exit/Alumni Survey Results | Outcome/Objective: OBJ15 -- ABET Associate Criteria d

Implementation Description: Require degree plan check to increase exit survey sample

Responsible Person/Group: Keith Sylvester (Director); Jeff Hannon (Coordinator)

#### Increase Exit Survey Sample

Because student degree plan checks did not include completion of the department exit survey, the sample for this measure was small.

Established in Cycle: 2013-2014 Implementation Status: Planned Priority: High

Relationships (Measure | Outcome/Objective): Measure: M23.2 -- ABET-BSf -- Exit/Alumni Survey Results | Outcome/Objective: OBJ23 -- ABET BS Criteria f

Implementation Description: Require degree plan check to ensure sample size of exit survey is increased Responsible Person/Group: Keith Sylvester (Director); Jeff Hannon (Coordinator)

## Increase Exit Survey Sample

Because student degree plan checks did not include completion of the department exit survey, the sample for this measure was small.

Established in Cycle: 2013-2014 Implementation Status: Planned Priority: High

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

**Measure:** M4.2 -- ABET-GCd -- Exit/Alumni Survey Results | **Outcome/Objective:** OBJ04 -- ABET General Criteria d

**Implementation Description:** Require degree plan check to ensure exit survey is taken.

Responsible Person/Group: Keith Sylvester (Director); Jeff Hannon (Coordinator)

# Analysis Questions and Analysis Answers

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

The Construction Engineering Technology (BCT) program has mapped its course assessments to ETAC-ABET's 'Criteria for Accrediting Engineering Technology Programs' since 2010. This year's findings show strengths in the following areas: ETAC-ABET General Criteria Outcomes: b. an ability to apply current knowledge and adapt to emerging applications of mathematics, science and technology (88% of 1,939 assessments scoring 70% or greater). d. an ability to apply creativity in the design of systems, components, or processes appropriate to program educational objectives (89% of 1,201 assessments scoring 70% or greater). k. a commitment to quality, timeliness, and continuous improvement (89% of 1,452 assessments scoring 70% or greater). ETAC-ABET Degree Specific Outcomes: a. producing and utilizing design, construction, and operations documents (86% of 827 assessments scoring 70% or greater). b. performing economic analyses and cost estimates related to design, construction, and maintenance of systems in the construction technical specialties (83% of 1,034 assessments scoring 70% or greater). c. selecting appropriate construction materials and practices (90% of 627 assessments scoring 70% or greater). e. applying basic technical concepts to the solution of construction problems involving hydraulics and hydrology, geotechnics, structures, construction scheduling and management, and construction safety (85% of 2273 assessments scoring 70% or greater). f. performing standard analysis and design in at least one recognized technical specialty within construction engineering technology that is appropriate to the goals of the program (84% of 1,667 assessments scoring 70% or greater). All of these outcomes have remained relatively constant since 2010-2011 (data was not collected in 2012-2013).

# What specifically did your assessments show regarding any outcomes/objectives that will require continued attention?

This year's findings show concern in the following areas: ETAC-ABET General Criteria Outcomes: a. an appropriate mastery of the knowledge, techniques, skills, and modern tools of their disciplines (76% of 1,939 assessments scoring 70% or greater). e. an ability to function effectively on teams (74% of 1,354 assessments scoring 70% or greater). g. an ability to communicate effectively (79% of 2,057 assessments scoring

70% or greater). These passing rates are significantly lower when compared to 2010-2011 and 2011-2012.

# Annual Report Section Responses

# **Program Summary**

The program has undergone significant stresses in the past four years (turnover in leadership and teaching corps). Traditional enrollment has fallen since the recession of 2008-2009 paralleling trends in the construction industry, while distance-learning (online) enrollment has increased. Currently the program has 170 traditional students and 200 online students enrolled.

## **Continuous Improvement Initiatives**

The following are improvement initiatives in the BCT Program underway in various stages of implementation: A. Curriculum Redesign: The curriculum has been evaluated by the School of Construction Curriculum Committee and the following changes have been recommended: a. The addition and/or consolidation of courses. These changes enable the BCT and ACT (Architectural Technology) programs to have a common set of courses in the first two years of study. Additionally, students in each program will gain competencies traditionally specific to each of the programs. This alignment is consistent with industry trends and requirements for entry-level graduates. This change should also address ABET weaknesses above (a, e, g). Status: Submittal materials for the College and University Academic Councils are being reviewed for submission in the Fall 2014 term. b. Renumbering of courses and designation of new prerequisites: Some courses have been designated to receive lower course numbers so as to be taken earlier in the curriculum. The School of Construction Curriculum Committee has determined that new prerequisites are required to increase student success in all course and program outcomes, as well as increase guality overall. Status: Submittal materials for the College and University Academic Councils are being reviewed for submission Fall 2014. c. Cohort matriculation: The BCT and ACT Program Coordinators, along with The School of Construction Curriculum Committee, have developed a Cohort matriculation model which assists with enforcement of course prerequisites and better definition of future course scheduling. Status: Done, implementation to begin in Spring 2015 term. B. Curriculum Quality Campaign: In order to better asses, and increase, the quality of teaching and assessment on the BCT Program (and the other programs in the School), the following initiatives are underway: a. Assessment Performance Targets: Performance targets will be changed from 70% to 100% of students scoring 70% or better on assessment outcomes. This is consistent with the program's Degree Plan which requires a minimum grade of 'C' to advance. Status: Implemented and reported next period. b. Education of faculty: New faculty will be orientated and participate in the program outcomes assessment and continuous improvement processes. Status: Underway. Peer review/assessment of faculty course design and pedagogy: The School is developing plans for peer review and reporting of course content, organization, delivery, and rigor as a part of annual program evaluation. This should enable communication of course assessment and methodology across the faculty, leading to the closing of gaps and weaknesses. Status: Planning.

## **Closing the Loop**

1. Communication of all course and program assessment outcomes to all faculty via publication on School portal (Blackboard shell). 2. Feedback from the BCT Program's Industrial Advisory Council (IAC) on course and program assessment outcomes, course quality/rigor. 3. Redesign of BCT Program Capstone Course to better reflect and measure Weave/ABET outcome criteria.