The University of Southern Mississippi

Detailed Assessment Report

As of: 9/24/2019 09:54 AM EDT

2018-2019 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 (CET) 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.

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

SLO 1:Create a construction project safety plan.

Graduates will have the ability to create a construction project safety plan upon graduation.

Related Measures:

M 1:M1 (Direct): BCT 380 Final Project

The Spring 2018 BCT 380 (Construction Safety) course requires students to create a project specific safety plan based on construction documents provided by the course instructor.

Source of Evidence: Project, either individual or group

Target:

Using a rubric to evaluate each component of the submitted safety plan, a student's performance will be assessed as either unacceptable (below 60 points), poor (60-70 points or higher), acceptable (70 points or higher), or good (80 points or higher). The achievement target will have been met if 80 percent or more assessed students achieve an acceptable or good score.

Findings (2018-2019) - Target: Met

Fall 2018: Hattiesburg on-campus: 82.8% (N=29) 24/29 on campus students received a 70% or better on the project. Fall 2018: On-line: 88.8% (N=80) 71/80 on-line students received a 70% or better on the project.

M 2:M2: (Direct): BCT 400 Safety Project

The Spring 2017 BCT 400 (Senior Project) course is the capstone course for the Construction Engineering Technology degree. One of the projects required for the spring 2017 course is for students to submit a site- specific safety plan for a construction project.

Source of Evidence: Project, either individual or group

Target:
The achievement target will have been met if 80 percent or more assessed students achieve a 70% or better on the project.

Findings (2018-2019) - Target: Met
Spring 2019: Hattiesburg On-Campus: 90.6% (N=21) 19/21 on campus students received a 70% or better on the project. Spring 2019: On-Line: 89.6% (N=48) 43/48 on-line students received a 70% or better on the project.

SLO 2:Create construction project cost estimates.
Students will be able to create construction project cost estimates upon graduation.

Related Measures:

M 3:M1 (Direct): AEC 365 -Cost Estimate and Report
The Fall 2016 AEC 365 (Estimating 2) course is the second of two estimating courses required for the Construction Engineering Technology degree. Students create several estimates in this course with each one increasing in scope and complexity. Assignment three requires students to assemble a cost estimate and report.

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
The achievement target will have been met if 80 percent or more assessed students achieve a 70% or better on the assignment.

Findings (2018-2019) - Target: Met
Fall 2018: Hattiesburg On-campus: 80% (N=30) 24/30 on-campus students received 70% or better on the assignment. Fall 2018 Online: 80.9% (N=63) 51/63 on-line students received a 70% or better on the assignment.

M 4:M2 (Direct) BCT 400 Cost Estimate Project
The Spring 2017 BCT 400 (Senior Project) course is the capstone course for the Construction Engineering Technology degree. One of the projects required for the course is for students to submit a comprehensive cost estimate for a construction project.

Source of Evidence: Project, either individual or group

Target:
The achievement target will have been met if 80 percent or more assessed students achieve a 70% or better on the project.

Findings (2018-2019) - Target: Partially Met
Spring 2019: Hattiesburg On-Campus: 76% (N=21) 16/21 on-campus students received a 70% or better on the project. Spring 2019 On-Line: 88% (N=48) 42/48 on-line students received a 70% or better on the project.

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

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

BCT 400 Cost Estimate Action Plan 2017-2018
Established in Cycle: 2017-2018

The BCT 400 course has not met SLO target for two cycles as related to students creating a construction project cost estimate. T...

SLO 3:Understand methods of project delivery.

Students will be able to understand different methods of project delivery and the roles and responsibilities of all constituencies involved in the design and construction process.

Related Measures:

M 5:M1 (Direct): AEC 380-AIA-201 Test

The Fall 2016 AEC 380 (Specifications & Contract Documents) course includes content about the Construction Project Life Cycle and the roles and responsibilities of all entities and parties involved in the project. Week 6 covers Conditions of the Contract which includes a thorough review of the AIA-A201 document defining duties and responsibilities of all parties of the contract. Students complete a test assessing the content.

Source of Evidence: Writing exam to assure certain proficiency level

Target:

There are a total of 63 questions on the test. Each question is worth 1 point. Using the following grading scale, a student's performance will be assessed as either an F (0-37 points), D (38-43 points), C (44-50 points), B (51-56 points), A (57-63). The achievement target will have been met if 80 percent or more assessed students achieve a C or better.

Findings (2018-2019) - Target: Met

Spring 2019: Hattiesburg On-Campus: 95.5% (N=22) 21/22 on-campus students received a 70% or better on the test. Spring 2019: On-Line: 97.2% (N=36) 35/36 on-line students received a 70% or better on the test.

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

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

AEC 380 AIA-A201 Test

Established in Cycle: 2017-2018

The on-campus section students achieved only 73.3% out of the targeted 80% minimum. The instructor of the course will review the...

M 6:M2 (Direct): BCT 174 Delivery Methods

The Fall 2016 BCT 174 (Construction Organization) course is an introductory course for the construction industry. In this course, students learn about different constituencies involved in the construction projects. In addition, they learn about different project delivery methods. In the course students are required to complete an assignment in which they compare 3 major types of project delivery and draw the organizational chart of each. Students also describe the relationship between major constituencies. The BCT 174 course was removed from the curriculum in Fall 2018 and will no longer be part of the Construction Engineering Technology (as of 7/1/2019 the program renamed to Construction Management). Because the AEC 380 (Specifications & Contract Documents) course also provides an assessment that measures project delivery method understanding, a quiz about Project Delivery Methods in the AEC 380 course will be used.

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
M2 used in 2016-2017 Cycle and 2017-2018 Cycle: Using a Pass/Fail grading criteria, students either have all information correct or they fail the assignment. The achievement target will have been met if 80 percent or more assessed students achieve a "Pass." M2 used in 2018-2019 Cycle: Students complete a timed 25 question multiple choice quiz that includes questions relating to methods of project delivery and roles and responsibilities of architecture and construciton project participants.

Findings (2018-2019) - Target: Met
Spring 2019: Hattiesburg On-Campus: 86.4% (N=22) 19/22 on-campus students received a 70% or better on the the quiz. Spring 2019: On-Line: 94.4% (N=36) 34/36 on-line students received a 70% or better on the quiz.

SLO 4:Utilize electronic-based technology.
Students will be able to utilize electronic-based technology to manage the AEC (Architecture/Engineering/Construction) process.

Related Measures:

M 7:M1 (Direct): AEC 132 Final Project
The AEC 132 (Architectural Graphics) course is where students use AutoCAD to develop a partial set of working drawings (plans). The Final Project for the course is evaluated using a rubric developed to access the components of the submission.

Source of Evidence: Project, either individual or group

Target:
The achievement target will have been met if 80 percent or more assessed students achieve a 70% or better on the project.

Findings (2018-2019) - Target: Met
Fall 2018: Hattiesburg On-Campus: 92.6% (N=27) 25/27 on-campus students received a 70% or better on the project. Fall 2018: On-Line: 80.6% (N= 31) 25/31 on-line students received a 70% or better on the project.

M 8:M2 (Direct): AEC 254 Estimating Assignment
The Fall 2016 AEC 254 (Estimating 1) course requires students to submit an assignment using OnScreen Takeoff software to estimate the quantity of concrete, CMU, and brick based on a set of drawings of a Coastal Wildlife Recovery Center. The assignment is scored based on 150 points total. A student earns the 150 points if they are successful in developing the estimate using the software and submit the assignment by the deadline.

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
A student's performance will be assessed as either unacceptable (below 90 points), poor (90-104 points), acceptable (105-119 points), or good (120-134 points) or excellent (135-150 points). The achievement target will have been met if 80 percent or more assessed students achieve an acceptable or better score.

Findings (2018-2019) - Target: Met
Fall 2018: Hattiesburg On-Campus: 88% (N=24) 21/24 on-campus students achieved a 70%

or better on the assignment. Fall 2018: On-Line: 90% (N=40) 36/40 on-line students achieved a 70% or better on the assignment.

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

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

AEC 254 Use of Technology
Established in Cycle: 2017-2018
Only 72.7% of on-campus AEC 254 students achieved the target related to technology use on an assignment in the course.

SLO 5:Increase Hattiesburg on-campus enrollment by 10%.
Increase Hattiesburg on-campus enrollment by two percent each Fall semester.

Related Measures:

M 9:IR Enrollment Data
The Construction Engineering Technology program desires to increase the Hattiesburg campus student enrollment by two percent. The data will be collected in the Fall semester from the Office of Institutional Research.

Source of Evidence: Existing data

Connected Document
- *IR response to Official Enrollment Data for Fall 2019*

Target:
The target will be met if the enrollment for the Hattiesburg on-campus Construction Engineering Technology majors increases by ten percent from Fall 2016 to Fall 2017 and two percent every Fall semester to follow.

Findings (2018-2019) - Target: Met
Official data from the Office of Institutional Research will not be available until November 1, 2019. This report is due September 30, 2019 so the program coordinator with the assistance of the Student Advancement Administrator, Kimber Atwell, ran a query to determine how many enrolled and active students are in the program on Friday, September 20, 2019. The query resulted in the following data: on campus Construction Engineering Technology (CET) majors= 108; Online CET majors = 192; On-campus Construction Management (CM) majors = 25; Online CM majors = 49. The combining of CET and CM majors numbers results in 133 Construction Engineering Technology and Construction Management students on-campus students enrolled. In July 2018, the Construction Engineering Technology degree program was approved for a name change to Construction Management so in order to report an accurate number of on-campus students the two enrollments must be combined. The Office of Institutional Research provides official data of program enrollment and was contacted to request enrollment for the Fall 2019 semester. It was stated that official enrollment will not be available until November 1, 2019 and this report is due by September 30, 2019. Therefore, the enrollment data included is subject to change and the outcome of meeting or not meeting the Target may be impacted. Communication from the Office of Institutional Research is included in this finding. The Fall 2017 on-campus enrollment for CET was 127. Fall 2018 on-campus enrollment for CET was 113. Fall 2019 enrollment is projected to be 133. This is a 17.7% increase and the first time we have met our initial target in 3 cycles.

Connected Document

- *IR response to Official Enrollment Data for Fall 2019*

SLO 6:Employer's are satisfied with intern's performance.

Construction Engineering Technology students are required to complete an internship consisting of 400 contact hours as part of their degree requirements.

Related Measures:

M 10:(Indirect) Employer Survey

Construction Engineering Technology students are required to complete an internship as part of their degree requirements. At the end of the internship, their supervisor completes an evaluation of the intern's performance as related to his/her assigned tasks during the internship. The Supervisor's Evaluation form consists of 7 questions which have 1-3 point rating options for response. The ratings include: 1=below average; 2=average; and 3=good.

Source of Evidence: Employer survey, incl. perceptions of the program

Target:

The achievement target will have been met if 80 percent or more assessed students achieve a two (2= average) or higher rating based on the average of the responses to the 7 questions on the evaluation form.

Findings (2018-2019) - Target: Met

Spring 2019: Online- 90% (N=21) 19/21 students received a 2=average or higher rating. Results of the action plan from fall 2018 have made a difference since there was an increase of 7% in 2 or better on the employer evaluation. 2 students did not provide a supervisor evaluation. Fall 2018: Online- 83% (N=37) 31/37 students received a 2= average or higher rating. The action plan that was implemented was to create an introductory quiz/assessment given the first day of class that requires students to understand the course expectations. The primary reason for the lower score was that 6 students did not submit the supervisor evaluation.

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

Actively Recruit On-Campus Students

The faculty and staff of the School of Construction will attend and host at minimum three (3) recruiting events that target increasing enrollment on-campus Construction Engineering Technology majors.

Established in Cycle: 2016-2017
Implementation Status: In-Progress
Priority: High
Implementation Description: The School of Construction hosted a spring 2017 "Craft of Construction' day where high school and community college students visited our Hattiesburg campus. We plan to host this event again next spring. We will also look for opportunities to attend community college and high school career days.
Projected Completion Date: 08/29/2018
Responsible Person/Group: Coordinator of Construction Engineering Technology, Student Advancement Administrator and faculty in the program.

AEC 132 Final Project

The findings indicate that students need more support in the beginning of the semester because AEC 132 is deemed a "historically difficult course" by the university based on the four academic years of data compiled by the Institutional Research for courses in which 33% of students received a grade of D,F, or W. The instructor of the course will provide more tutorials (available in Canvas) and outside of class assistance to students to better prepare students who are challenged in completing the project.

Established in Cycle: 2016-2017
Implementation Status: Finished
Priority: High
Implementation Description: Continue to monitor the findings.
Projected Completion Date: 07/30/2018
Responsible Person/Group: Coordinator of program, instructor of record

AEC 365 Action Plan

Change the course assignments from three to one (cost estimate and report), concentrating on the quality of one assignment deliverable.

Established in Cycle: 2016-2017
Implementation Status: In-Progress
Priority: High

Projected Completion Date: 07/30/2018
Responsible Person/Group: Coordinators of CET and AET programs and instructor of record

BCT 400 Cost Estimate Plan

Discuss an action plan with the Director of the School and the unit Coordinator(s) that involves content of prerequisite courses: The Senior Capstone course, BCT 400, is intended for students to show evidence of competencies, not to attain the competencies during the course.

Established in Cycle: 2016-2017
Implementation Status: In-Progress
Priority: High
Implementation Description: Some changes have been made in prerequisite offerings and are strictly enforced.
Projected Completion Date: 07/30/2018
Responsible Person/Group: AET and CET director , coordinators, and instructor of record

BCT 400 Safety Plan

Discuss an action plan with the Director of the School and the unit Coordinator(s) that involves content of prerequisite courses: The Senior Capstone course, BCT 400, is intended for students to show evidence of competencies, not to attain the competencies during the course.

Established in Cycle: 2016-2017
Implementation Status: In-Progress
Priority: High

Projected Completion Date: 07/30/2019

AEC 254 Use of Technology

Only 72.7% of on-campus AEC 254 students achieved the target related to technology use on an assignment in the course.

Established in Cycle: 2017-2018
Implementation Status: In-Progress
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: M2 (Direct): AEC 254 Estimating Assignment | **Outcome/Objective:** Utilize electronic-based technology.

Implementation Description: The instructor of the course will spend more time showing students how to use the software in order to successfully complete the assignment. Tutors may also be made available for those students needing extra help.
Projected Completion Date: 07/31/2019
Responsible Person/Group: Instructor of course and coordinator of program

AEC 380 AIA-A201 Test

The on-campus section students achieved only 73.3% out of the targeted 80% minimum. The instructor of the course will review the questions missed and provide additional emphasis on students fully understanding the content contained in those questions to assist in improving the outcomes.

Established in Cycle: 2017-2018
Implementation Status: In-Progress
Priority: High

Relationships (Measure | Outcome/Objective):
Measure: M1 (Direct): AEC 380-AIA-201 Test | **Outcome/Objective:** Understand methods of project delivery.

Projected Completion Date: 08/30/2019
Responsible Person/Group: instructor of course

BCT 400 Cost Estimate Action Plan 2017-2018

The BCT 400 course has not met SLO target for two cycles as related to students creating a construction project cost estimate. The program coordinator and course instructor have had discussions about reducing the scope of the project in order for students to be successful in the future. Further discussion will take place to identify additional measures that need to be taken.

Established in Cycle: 2017-2018
Implementation Status: In-Progress
Priority: High

Relationships (Measure | Outcome/Objective):

Measure: M2 (Direct) BCT 400 Cost Estimate Project | **Outcome/Objective:** Create construction project cost estimates.

Projected Completion Date: 01/01/2019
Responsible Person/Group: Course instructor and program coordinator

Analysis Questions and Analysis Answers

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

One of the main strengths that will enable us to better track outcomes is the faculty commitment to submitting the end-of-the-semester course assessment data. Those data enable collection of all course outcomes and allows program coordinator and program faculty to meet to discuss possible actions we may take collectively to improve. This is the most critical component for improving our outcomes to meet accreditation and program objectives. Copies of the Course Assessment Data faculty completed is attached to this report. Our assessment results reflect that both On-campus and Online students achieve the desired target of 80% of students earning a 70% or higher on the assessment tool used to measure in the following courses : BCT 380- Construction Safety; AEC 365- Estimating 2; BCT 174- Construction Organization; AEC 132- Digital Graphics 1; and Internship employers are very pleased with the performance of Construction student interns. Based on a comparison of the 2017-2018 report outcomes results and the current cycle, significant progress has been made in several outcomes. Overall, in 2017-2018 there were 4 courses who did not meet the target of 80% for both on-campus and online students. In the current 2018-2019 cycle, in the same courses all but 1 course (M3-BCT 400 Cost Estimate Project) met the target for both on-campus and online students. This is a significant increase in meeting desired outcomes and reflects that the action plans were effective. Specific course result comparisons: 1. M2- BCT 400 Safety Project- Spring 2018 findings: On-campus= 58% (N=12) 7/12; Online= 97% (N=36) 35/36; Spring 2019 findings: On-campus= 90.6% (N=21) 19/21; Online=89.6% (N=48) 43/48 Comparison: the percentage of On-campus students meeting the target outcomes increased by 32.6% 2. M3-BCT 400 Cost Estimate Project- Spring 2018 findings: On-campus = 58% (N=12) 7/12; Online =97% (N=36) 35/36; Spring 2019 findings: On-campus= 76% (N=21) 16/21; Online= 88% (N=48) 42/48 Comparison: the percentage of On-campus students who met the target increased by 18% but we did still not meet the 80% desired for outcomes. We will continue to implement the action plan associated with this measure and faculty also discussed adding student tutors for Estimating courses because this has proven to improve results in other classes such as AEC 132. 3. M5-AEC 380 AIA-A201 Test- Spring 2018 findings: On-campus= 73.3% (N=15) 11/15; Online= 93.8% (N=- 65) 61/65 Spring 2019 findings: On-campus=95.5% (N= 22) 21/22; Online = 97.2% (N= 36) 35/36 Comparison: the percentage of On-campus students who met the target increased by 22.2%. 4. M8-AEC 254 Estimating 1 Assignment- Fall 2017 findings: On-campus 72.7% (N=22) 16/22; Online= 90.6% (N=43) 39/43 Fall 2018 findings: On-campus = 88% (N=24) 21/24; Online= 90% (N= 40) 36/40 Comparison: the percentage of On-campus students who met the target increased by 15.3 %. 5. M9- Increase Hattiesburg on-campus enrollment by 10%- Fall 2017 findings:127 students; Fall 2018 findings: 113 students; Fall 2019 findings: 133 students. This is the first cycle in 3 years in which we met our original target of a 10% increase in on-campus enrollment. Comparison: We increased on-campus enrollment by 17.7%.

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

The BCT 400 Cost Estimate Project has not met the target outcomes for the last 3 assessment cycles. Although there has been a significant increase in the percentage of On-

campus students achieving the target (58%- Spring 2018 to 76% - Spring 2019), we are still not at the 80% required for both On-campus and Online students. In Fall 2018, the Construction Management (prior to July 2019 the program was Construction Engineering Technology) program coordinator meet with the program faculty to discuss the curriculum and any changes that need to be made to improve student success. One major outcome of that meeting was the revision of several prerequisites. The program coordinator submitted course modification proposals for six major courses to the Academic Council in the Fall 2018 semester to be implemented in Fall 2019. Most of the course modifications involved changing the prerequisites as faculty determined at our meeting that our existing prerequisites were not suitable for the six courses submitted. BCT 400 now has Estimating 1 and 2 courses as strictly enforced prerequisites whereas before this change a student could enroll in BCT 400 as long as they were classified as a senior. It is anticipated that this change will have a positive outcome on achieving the desired target.

Annual Report Section Responses

Program Summary. Summarize highlights of the past year for this particular academic program. Provide context to an outside reviewer.

The Construction Engineering Technology (CET) degree program (as of July 2018 program name changed to Construction Management) has around 374 majors (108 on-campus CET majors; 192 online CET majors and 25 on-campus CM majors & 49 online CM majors) and only 7 faculty teaching courses in both Construction and Architecture Engineering Technology (around 84 majors). This results in about 458 students being taught by 7 faculty (or a 1:65 faculty to student ratio). 66% of the coursework is shared (both Construction and Architecture students must complete as part of the 120 credits required to receive the B.S.) for these two degrees. Construction Engineering Technology is accredited by ETAC-ABET (Engineering Technology Accrediting Commission-Accreditation Board of Engineering Technology) and ACCE (American Council for Construction Education). The CET program is offered both on the Hattiesburg campus and fully online. In July 2018, the IHL approved the renaming of the program to Construction Management. The CET program has a very active student organization, Student Constructors. This organization meets bi-monthly, has a facebook page, and performs several community outreach projects each semester as well as participating in campus activities (e.g., intramural sports, student organization recruiting booth, move-in day...). Student leaders from this organization invite industry and alumni leaders to speak at the bi-monthly meetings. Student Constructors also host the "Craft of Construction and Design Lecture Series." The lecture series invited two exceptional individuals to speak during the last academic year. On March 26,2019, Dr. Brad Carey presented for the Lecture Series.Dr. Carey is the Director of the Project Management graduate program at Curtin University in Australia and spoke on, "Soft Skills + Hard Skills from Outback: beginning to present." Mr. John Garrison, owner of Garrison Steel erectors and Fabricators in Central Alabama presented the topic "Go Build" during the September 25, 2018 Craft of Construction and Design lecture Series. His company has built some the most complex projects in the southeastern United States. Based on data acquired for the College of Science & Technology Degree Auditor, there were a total of 68 (Fall 2018 = 17 (11 online & 6 on campus); Spring 2019 = 36 (19 online & 17 on-campus; Summer 2019 = 15 (9 online & 6 on-campus) Construction Engineering Technology students graduating in AY 2017-2018. In the Spring 2018 semester we revived our national honor society for construction, Sigma Lambda Chi. Sigma Lambda Chi had been inactive for several years. The second induction ceremony since the honors society was revived was held on October 5, 2018, on the USM Hattiesburg campus at the Ogletree House. There were 8 students and 3 honorary members (2 faculty, and 1 industry professional) inducted that evening. More than 40 people attended this event. Our CET program continues to experience growth in the online student enrollment. Several faculty have completed Quality Matters (QM) courses (Cewe-Malloy, Kemp, and Zhang) and two faculty are now QM certified reviewers (Kemp & Zhang) .

Because our CET program is offered online we value the training received and will implement things learned and best practices in designing our online courses. Dr. Zhang has reviewed several online courses for QM and shared that she gained a lot of knowledge and ideas by reviewing online course design from faculty at other institutions. In May 23, 2019 through August 11, 2019, four full-time faculty (Connell, Lee, Kemp, Cewe-Malloy) and one adjunct faculty completed IDEO online courses. The IDEO courses are designed to provide insight into how one uses design thinking to solve challenges. Our program faculty are certified National Center for Construction Education and Research (NCCER) and four of our courses use specific modules of these NCCER national standards to verify performance of lab activities required to meet accreditation and industry standards. There are NCCER Testing Facilities located all throughout the U.S. and some outside the U.S. so using NCCER modules to replace our labs allows our online student population to complete the lab requirements required for the degree without having to come to the Hattiesburg campus. All of these accomplishments support our efforts to engage our students and delivery a high-quality program. We continue to participate in recruiting events. The 3nd Annual Craft of Construction & Design Day event held on March 27, 2019 was even more successful than the first event in 2017. We had over 206 high school & community college students, counselors, advisors, and instructors, and 16 industry representatives attend. Administrators and program coordinators, faculty, program alumni, and student representatives provided information and a memorable day to those attending. Our Sigma Lambda Chi student members will be participating in recruiting visits to regional high schools and community colleges. We attended two Black & Gold Day, College Transfer Day, and Honors Day recruiting events on the Hattiesburg campus of Southern Miss. Two other recruiting events we participated in were Pathways to Possibilities held in Biloxi, Mississippi and Pathway to Careers held in Jackson, Mississippi. We hosted our 3rd School of Construction & Design Building Futures Summer Camp on July 14-18, 2019, during which 25 campers (8th through 12th grade) spend days learning the skills of construction by actually building a structure. Our first camp had 12 campers so the number of participants has more than doubled in the three years we have been hosting the camp. The camp is made possible by our partnership with the Mississippi Construction Education Foundation (MCEF). This year MCEF established two scholarships for students completing the camp and entering our Construction program. The Associated General Contractors (AGC) also established a scholarship for students majoring in construction. The Industry Advisory Council (IAC) for the Construction and Architecture programs continues to grow in number and represents the many diverse sectors of the construction industry. Our IAC Executive Committee developed revised By-Laws, hosted meetings for the IAC in the fall & spring semesters, served as mentors, industry partners, and guest speakers for faculty and courses, attended American Council for Construction Education national meetings & workshops, gave feedback on curriculum matters, provided financial support for scholarships and School needs, and offered our students internships. We now have 39 paid members of our IAC with several corporate memberships among them. The School of Construction and Design was the institution with the largest number of industry representatives present at the American Council for Construction Education held on February 20, 2019 in Houston, Texas and was also highlighted for Best Practices on our collaborative practices with our Industry Advisory Council. The Mississippi State Board of Contractors (MSBOC) has funded an endowment for a Professor of Practice. This organization has been instrumental in supporting our program to enable us to host the Craft of Construction Leadership Lecture Series, which for three years has brought to our campus national and international leaders and experts in the A/E/C industry to present to our faculty, students, industry members and university community.

Connected Documents

- *2018 Sigma Lambda Ceremony Flyer*
- *2019 Craft of Construciton Day Packet*
- *ACCE SLO Matched to CM Courses Fall 2019*

- *Brad Carey lecture Flyer*
- *Garrison Leadership lecture Flyer*
- *Sigma Lambda Chi Flyer*

Continuous Improvement Initiatives. Any department-level or program-level action plans for improvement that are not necessarily tied to a specific student learning outcome or program objective should be described in this field.

The Construction Engineering Technology program coordinator, after several meetings with program faculty and director, submitted several proposals for prerequisite and other course changes. The objective of making these changes was to optimize student success in individual courses and program completion based on several years of faculty data and observation of performance in their courses taught. We revised our mapping of Student Learning Outcomes (SLOs) for our main accrediting organization, the American Council for Construction Education, while considering the best course for being able to consistently assess based on instructor provided assessments and avoiding possible transfer courses at the lower-level so we fully assess all students completing our program. A copy of the revised mapping of ACCE SLOs is attached to this section of the report. The Construction Engineering Technology program coordinator developed the template faculty teaching in the program use for reporting course assessment results. The template is delivered to faculty in the form of a survey the faculty member completes at the end of each semester for all classes he/she taught. The Student Learning Outcomes (SLO) required by our accrediting bodies are part of the template and faculty merely select the appropriate SLO (as determined by all faculty during our Spring 2019 meeting) from the list provided. The template has been used for four semesters and is a "work in progress" because with each semester it is discovered that an improvement may be made to the template. The coordinator of the program reviews the results after the semester's data has been submitted and conducts meetings with individual faculty or program faculty groups to discuss what we may do to improve outcomes where needed. A copy of the results submitted by faculty for Fall 2018 and Spring 2019 is included as an attachment to this section of the report. Each course taught in the program requires faculty to have an Academic Partner and an Industry Partner. The Academic Partner is a faculty member at another college or university that is teaching a similar course and the Industry Partner is someone who is currently practicing in the A/E/C industry and an expert in the subject matter of the course. The two partners assist the faculty member by reviewing the syllabus and course schedule of topics to be covered, reviewing textbook or other teaching aids used in the course, and sometimes function as guest speakers in the classroom. Our quality of advisement and student retention has been positively impacted by the hiring of a Student Advancement Administrator. This person is the main point of contact for semester advisement, initial point of contact for student questions and concerns, and communicates any student issues she cannot resolve to the program coordinator so action may be taken in a timely manner. The program has developed new marketing materials to distribute to visitors, prospective students, and during recruiting activities and events. This one page handout provides information that is intended to inform, gives a point of contact, and visually appealing. Our Sigma Lambda Chi honor society inductees visited two nearby high schools to inform students of the opportunities and majors our School of Construction and Design and programs has to offer. Sending junior and senior level Construction Engineering Technology and Architectural Engineering Technology majors was effective in that high school students can better relate to individuals close to their age and our students were able to speak about their personal experiences as a major in the two programs of study. The coordinator has developed and implemented an alumni survey and a graduating senior exit survey for the construction program. It has been several years since these data have been collected. This is an indirect measure of achievement of SLO and also allows us to maintain current contact information on our programs alumni. Results of both surveys are included with this section of the report with the names on the alumni survey removed to protect sensitive information such as salary being tied to an individual.

Connected Documents

- *ACCE SLO Matched to CM Courses Fall 2019*
- *CET Alumni urvey Results_November2018_w-o Names*
- *Faculty Course Assessment for Fall 2018*
- *Faculty Course Assessment for Spring 2019*
- *Spring 2019 Graduating Student Survey Results*

Closing the Loop. Summarize the results of previous action plan implementation. Provide evidence of improvement based on analysis of the results.

The 2017-2018 AY action plans were implemented with the following results: 1. BCT 400 Safety Plan- The coordinator and instructor of BCT 400 discussed the possible changes that could be made in the course to improve SLO results. The instructor of BCT 400 provided students with materials to refresh their understanding of the components of a safety plan because of the gap in time between when classes are taken (historically the BCT 380 course did not have any prerequisites) and also provided samples of well-written safety plans. A pre-requisite of AEC 258 (taken in the sophomore year has been added). The on-campus student SLO findings dropped from 60% to 58% (Fall 2016) while the online student SLO findings improved from 82% to 97% (Fall 2017). Findings for both on-campus and online students improved this cycle (Fall 2018) to 82.8% and 88.8%, respectively. We will continue to monitor this plan one more cycle to determine if it is effective or additional action plans must be implemented. 2. AEC 465 Cost Estimate Project- The reduction of number of projects and more individual help for students who are struggling had positive results. The on-campus student SLO findings improved from 57% to 84% (Fall 2017) and online student SLO findings improved from 55% to 81.5% (Fall 2017). In this cycle, Fall 2018, findings were 80% for on-campus students and 80.9% for online students. The action plans implemented continue to be successful and will continue to be implemented and monitored for another cycle. 3. AEC 132 Final Project- The instructor of the course prepared tutorials and provided additional one-on-one time for students challenged in completing the project. This action plan was successful as evidenced by on-campus student SLO findings of 52% (in Fall 2016) and online student SLO findings of 63% and 71% (Summer & Fall 2016) improving to on-campus 85% and online 80%. In the last cycle, Fall 2017, on-campus findings were 72.7% and online findings were 90.6%. Last cycle we hired students who excel in CAD to serve as tutors for other students struggling in the course. Because we have an online program the tutors used Skype to be able to tutor online students in real time. The finds for this cycle (Fall 2018) of on-campus 92.6% and online 80.6% indicates that the addition of student tutors is effective and we will continue to monitor. We will continue this strategy for the future. 4. Increase On-Campus Enrollment by 10%- Based on the official enrollment data provided by the Office of Institutional Research, the on-campus enrollment numbers declined from 127 students in Fall 2017 to 113 students in Fall 2018. This may partially be contributed to the new policy established by the program of on-campus students not being able to enroll in online courses unless their is a scheduling conflict caused by when the School offers major courses and this conflict will negatively impact a student's graduation date. Some on-campus students who are employed full time have officially changes their campus from Hattiesburg on-campus to online so they may enroll in online classes which are better suited to their work schedules. . We have conducted several on-campus and in-state recruiting events that we believe are positively impacting our enrollment on campus. Based on unofficial results (refer to SLO 5: M9:IR Enrollment Data) our on-campus combined enrollment with Construction Engineering Technology and Construction Management majors is 133. This reflects an increase of 17.7% which exceeds of target. The honor society for construction, Sigma Lambda Chi, students will continue visiting local high schools to recruit for the on-campus program.

Connected Documents

- *Faculty Course Assessment for Fall 2018*
- *Faculty Course Assessment for Spring 2019*