**Construction and Building Science Technology (CBST)**

**Program Review**

**Reporting Period: 2015-2016**

**Part 1: Review of Past 3 Years**

1. **Service Unit Outcomes/Program Learning Outcomes/Student Learning Outcomes Assessment**

**A. *Summarize assessment results. Highlight successes and areas requiring improvement. Discuss what actions were taken based on the assessment results and any improvements that can be observed.***

* Construction Management Program was awarded a six years Re-Accreditation by American Council for Construction Education (ACCE) in July 2013.
* The Student Learning Outcome Assessments for Construction Management Program satisfied ACCE requirement.
* CBST purchased and installed 19 computer stations with dual monitors for updating its computer labs.
* Successfully transitioned the new Program Coordinator into the program in January 2015 due to exit of the predecessor coordinator.
* CBST is witnessing a great continues increase in enrollment. Beginning in Fall 2015, CBST observing a 40% increase in its enrollment.
* In 2015, ACCE changed to outcome based standards regarding Accreditation and Re-Accreditation of Construction Programs. Program Coordinator and the faculty of CBST take every opportunity to attend all ACCE meetings and conferences to familiar themselves with the outcome standards.
* CBST continuously strive to recruit new students to the program. Although student enrollments in this program are successful, CBST attempts to expand its student population. The Program Coordinator and the faculty of CBST set effort to maintain the CBST accreditation status and raise this program to be the best Two-Year program nationally.

***B. If applicable, identify the data regularly collected and or reported as part of program compliance.***

* The following charts summarizes data provided by IRIR:
1. Total Credit Hour Production per academic year.
2. Total registrations per academic year.
3. Total student head count per academic year.
4. Total Degrees awarded per academic year. These degrees include Short Certificates, Advanced Certificates, and Associate Degrees.

*Credit Hour Production*

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| **Credit Hour Production (CHP)** |
| **Academic Year** | Construction and Building Science Technology (CBST) |
| **2013-2014** | 763 |
| **2014-2015** | 677 |
| **2015-2016** | 927 |

*Total Registrations*

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| --- |
| **Total Registrations per academic year** |
| **Academic Year** | Construction and Building Science Technology (CBST) |
| **2013-2014** | 303 |
| **2014-2015** | 262 |
| **2015-2016** | 365 |

*Total Students*

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| **Total Student per academic year** |
| **Academic Year** | Construction and Building Science Technology (CBST) |
| **Fall 2013** | 56 |
| **Fall 2014** | 51 |
| **Fall 2015** | 67 |

*Total Degrees Awarded*

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| **Total Degrees awarded academic year** |
| **Academic Year** | Construction and Building Science Technology (CBST) |
| **2013-2014** | 25 |
| **2014-2015** | 7 |
| **2015-2016** | 42 |

1. **Analysis (as it relates to progress in achieving unit goals)**
2. ***External Conditions that have impacted the unit. Describe the ones that have most significantly affected the unit and what actions the unit took to respond to those conditions.***
* The general contractors licensing board fee (#229001) are funds derived from the annual Alabama General Contractors license dues. A percentage of all general contractor license fees are to be split among all accredited construction and engineering schools within the state. Construction Management continue to receive these funds annually. These funds along with Jefferson State budget for CBST provide enough support for CBST to purchase the necessary technology, equipment, and other needs of this department. The college’s Financial Services Department and the Construction and Building Science Department work together to manage the balance of this account.
* Construction Management and Building Science and its Industry Advisory Committee (IAC) work closely together to advance the program. This committee has an immense impact on CBST curriculum and its network with the local construction industry.
* In 2015, Construction and Building Science Technology signed an Articulation Agreement with Tuskegee University. Based on this agreement, graduated students from Jefferson State Construction Management are able to transfer to Tuskegee University as third year (junior) Construction Science and Management (CSM) students.
* In 2015 Construction and Building Science Technology applied and was accepted to organize an Associated General Contractor (AGC) student chapter. Alabama AGC has been supportive of our AGC student chapter and has provided many opportunities to CBST student via general contractors networking, academic scholarship, involving CBST professional meeting, etc.
1. ***Internal Conditions that have impacted the unit. Describe the ones that have most significantly affected the unit and what actions the unit took to respond to those conditions.***
* Construction Management and Building Science faculty and administration have open communication with upper administration in the college.
* All the required needs in CBST department get collaborated for purchasing, updating, and placement without any complications.
* The Dean of the Career and Technical Education has a clear understanding of Construction and Building Science Technology and well accommodating in the needs of the program.
* The communication flow is open from CBST to upper administration and visa versa.
1. **Primary Functions/Primary Purpose/Unit Mission**
* The primary function and the mission of Construction and Building Science Technology remains the same. The general mission of the Construction and Building Science Program, as contained in the Mission of the College, is to offer programs and activities that reflect those characteristics that help define an educated person. Therefore, the mission of the Construction and Building Science Technology Department continues with providing the building and architecture industry with graduates that can function effectively in the workplace.
* The student learning outcome in Construction Management Program follows the direct requirements for Student Learning Outcomes (SLO) of American Council for Construction Education (ACCE); the accrediting body for construction programs.
* Based on our employer survey, 90% of employers indicate that graduates were adequately prepared for entry level positions.

1. **Goal Progress**
* On January 5th, 2015 Mike Safavi was appointed as the permanent Program Coordinator for this Department. Mike brings decades of higher education teaching, administration, and construction and architecture industry experience with him. Transition in the Departmental leadership was successful.
* One of the Department computer labs located in HMB room 241 was updated with 19 double monitor up-to-date computer stations. Furthermore, these computers were loaded with updated CAD and Microsoft Project software. It is one of the Department’s goal to maintain updated and new software providing students with available industry technology.
* The latest CAD software, Microsoft Project, and Microsoft Office Suite. And On Screen Take off (OST), a construction estimating software. Microsoft Project and All the computers in HMB rooms 241 and 236 classrooms labs were updated with OST software were obtained free of charge as academic issues. This updates will continue every time the Department realizes such needs.
* CBST Department purchased four 42” commercial advertising TV monitors and hardware for recruitment purposes and to provide program information/updates. Three of these monitors have been installed in the Harold Martin Building and one to be used as a mobile unit to help with off campus recruitment. Positive feedback and comments have been received from current and incoming freshmen students.
* The Department applied and was accepted to be an academic member of the Associated Schools of Construction (ASC). This academic organization represents schools of construction internationally. The Construction Program at Jefferson State Community College is one the few Two-Year accredited program that is now a member of this prestigious academic organization. This membership provides our construction program to have international exposure to other schools of construction.
* The Construction Management Program applied and was accepted to establish an academic student chapter for Associated General Contractors of America (AGC). This national industry organization provides vast opportunities for the students at this Department. AGC offers a network of local and national contractors to students who can be potential employers of the graduates. It also offers a vast variety of academic scholarships to the qualified students that can assist in paying for tuitions, books, and other school expenses. Although the process for establishing this student chapter was lengthy, AGC student chapter membership bears no fees for the Department.
* Program Coordinator (Safavi) participated in the NCCER Instructor Certification Training Program. He received his certification from NCCER.
* A final Articulation Agreement was developed by both JSCC and TU. This agreement has been signed by both Tuskegee University and Jefferson State Community College administrations and now is in effect by both of these schools. By this agreement, qualified JSCC Construction Management graduates are now able to attend Tuskegee university CSM program as 3rd year students with Junior standing and continue to complete their Bachelor degrees in this discipline.
* Faculty attended the American Council for Construction Education (ACCE) Annual Conference in Louisville, Kentucky. This conference was predominantly intended to explain changes in the ACCE Accreditation process and requirements. Faculty attended extensive training, workshops, and meetings to apprehend such changes. These changes are to be implemented to all accredited construction programs effective year 2016.
1. ***Describe your unit’s progress in achieving its goals. Highlight achievements or areas that need continued focus and the evidence to support these claims. Indicate any factors that impacted progress toward achieving a goal.***
* Program coordinator, faculty, and Industry Advisory Committee (IAC) of construction and Building Science Technology, collectively, determine the needs of the department. Program Coordinator reviews these needs and include them in the annual departmental budget to be provided.
1. ***Describe the adequacy of resources to achieve goals.***
* The departmental budget in addition to the annual Alabama General Contraction Funds have been adequate to provide the needs of this department.
1. ***Describe the impact of any resource allocations you have received over the past three years in terms of the effectiveness of your unit.***
* The general contractors licensing board fee (#229001) are funds derived from the annual Alabama General Contractors license dues. A percentage of all general contractor license fees are to be split among all accredited construction and engineering schools within the state. The size of this annual amount depends on many changing factors. The number of students graduating with a construction management degree and the number of general contractors purchasing and renewing their licenses each year are the two primary factors that determine our income of this account. The college’s Financial Services Department and the Construction and Building Science Department work together to manage the balance of this account. This account supports some faculty and student travel and needed building materials and office supplies. The vast majority of this account is reserved for the purchase of computer hardware and software.

**Part 2: Implications of Program Review for Developing 3 Year Plan**

1. **Vision and Direction of Unit**
2. ***As a result of your evaluation, what direction do you see your unit taking in the next three years?***

• CBST at Jefferson State in one of the only 14 Two-Year Construction Management Program nationwide that accredited by the American Council for Construction Education (ACCE). The Program Coordinator and the faculty of CBST set effort to maintain the CBST accreditation status and raise this program to be the best Two- Year program nationally.

1. ***Are there are any anticipated conditions or trends that might impact the unit?***
* None at this time
1. ***What changes in collaborative relationships are needed to make this unit more effective in its missions?***
* None at this time
1. ***Identify any areas where communication could be improved.***
* None at this time
1. ***Describe the feasibility of making the plan you have outlined a reality. What are the resources or support needed? What challenges do you anticipate?***
* Construction and Building Science Technology at Jefferson State is known to include one of the strongest Two-Year Construction Management nationwide. The Construction Management degree at JSCC is one of only two accredited construction management degrees, and is the only accredited two-year construction management degree, within the state of Alabama and one of fourteen nationwide.
* CBST graduates are hired to work for small local or large national builders and architecture firms (Doster Construction, Brasfield and Gorrie, Robins and Morton, DR Horton Homes, Harris and Doyle Homes).
* The Department’s reputation and history of providing well-educated construction professionals is a great resource that will continue to attract new CBST students.
* With the quality of CBST academic curriculum, its well qualified faculty, the support from its IAC members, its available technologies, and the support of the college as a whole It is well practicable for CBST to be the best two-year construction and building science program nationwide.

**Part 3: Evidence of Staff Participation in Program Review**

1. **Describe how the unit staff participated in the program review process. Include specific dates for meetings held or activities conducted.**
* The Construction and Building Science Technology (CBST) Program currently has two full time instructors, one of which is the Program Coordinator of the CBST. During the course of this review, the current instructors have been utilized in the review process and have been instrumental in the development of current program and student learning outcomes.
* The Construction and Building Science Technology Program Industry Advisory Committee meets twice a year. One meeting is arranged in the Fall semester and the second one in the Spring semester. This group is made up of professionals in construction industry and education. The advisory committee receives program information and they provide valuable feedback and input to the program, which contributes to the program’s overall success.
1. **Attach advisory committee minutes (if applicable) and list of members. Describe any changes made in the unit as a result of input from the advisory committee.**
* The Construction and Building Science Technology Program Industry Advisory Committee (IAC) meets twice a year. Members of the Construction and Building Science Industry Advisory Committee include the following:

 Ms. Blair Watson, Committee Chair, SSOE Group

 Mr. Bob Baker, Hinkle Roofing

 Mr. Michael Bell, Birmingham Construction Industry Authority

 Mr. F.A. Brown, Teacher, Huffman High School

 Mr. David Canalis, Stewart Perry Construction

 Mr. Bill Caton, AGC Alabama

 Mr. Jon Chesser, D. R. Horton

 Mr. Thomas Cook, Teacher, Gardendale High School

 Mr. Alan Duke Jr., Eqs. Belt and Bomer PC

 Mr. Chris Foster, Foster Construction

 Mr. Rusty Flower, Fowler Custom Homes

 Mr. Steven Franklin, Brasfield & Gorrie

 Mr. Murray Jones, Instructor, Construction and Building Science, Jefferson State Community College

 Mr. Scott Kelley, Sherman Industries

 Mr. Robert Kelly, Kelly Construction

 Mr. Mike Lanier, Hoar Program Management

 Mr. Massoud safavi, AIC, CPC, Program Coordinator

 Construction and Building Science

 Jefferson State Community College

 Mr. Byron McCain, Construction Education Foundation of Alabama

 Mr. Zac Meadows, Tower Homes, Inc.

 Mr. Jeff Rogers, Alabama AGC

 Ms. Kyonta Smith, Goodwyn Mills Cawood Architecture

 Mr. Charlie Vick, B.L. Harbert International

* The industry advisory committee receives program information and they provide valuable feedback and input to the program, which contributes to the program’s overall success.
* The Construction Management and Building Science Industry Advisory Committee meetings minutes are on file and available in the department for review
1. **List names and titles of all participants in this program review.**
* Mike Safavi, AIC, CPC

Construction and Building Science Technology Program Coordinator

* Murray Jones

CBST Instructor/ Advisor

**Instructional Unit Program Review**

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| **Enrollment****Patterns** | **Achievement****Data** | **Student Learning****Outcomes** | **Goal** **Progress** |

1. **Enrollment/Achievement**
2. ***Summarize and interpret the data for enrollment/achievement as they relate to your program.***
* Student enrollments increased nearly 40% in Fall 2015 compared to the previous three years average.

1. ***Summarize the collected program data***
* Student satisfaction rates of the faculty and the department are high.
* Employer satisfaction rates of the CBST graduates are high
* With the increasing of students enrollments, additional equipment and material will be needed.
1. **Program Learning Outcomes/Student Learning Outcomes Assessment**
2. ***How are program-level and course-level SLO’s being implemented, assessed and used for program improvement?***
* Construction Management Program is accredited by the American Council for Construction Education (ACCE).
* The Student Learning Assessment in the CBST courses must follow all the requirement of ACCE standards.
* Each course student learning outcomes are assessed by the faculty at the end of each semester. These assessments show the strengths, concerns, and weaknesses which may occur for the course.
1. ***Summarize how the program has responded to SLO assessment results.***
* These Student Learning Outcome Assessments are reviewed at the end of each semester. They are used as tools to improve teaching methods, providing adequate equipment, or providing suitable technology to reach the desired SLO without influencing ACCE SLO standards.
1. ***Discuss how each action/change is based on SLO assessment results and how it will contribute to the improvement of the program.***
* As noted above, the program continues to evaluate student learning outcomes and the assessments of the outcomes for improvements. Student surveys and employer surveys are currently used in the assessment process as well as other methods. The program will continue to review and evaluate the student learning outcomes and will make changes as needed.
1. **Goal Progress**
2. ***Based on the data from the previous topics and any other relevant internal or external data your department has collected, how have your department and program goals developed and changed over the past three years?***
* The Construction and Building Science Technology along with its Industry Advisory Committee assess the needs of the program academically and physically during its annual meetings. The required needs are identified and voted on in the meetings. The Program Coordinator will calculate a required budget to accomplish the goals.
* Several software have been added to the CBST computes due to the needs of construction industry.
* CBST Industry Advisory Committee assisted students in networking with local construction companies to locate employment in this industry.
* Alabama AGC assists CBST students with networking and academic scholarships.

1. ***Discuss the steps you have taken to address each goal. What have been the results of these efforts?***
* The program goals are discussed in the Unit Strategic Plan and submitted to the college. Results have always been positive as previously noted in this document.
* Please refer to Part 1, Paragraph 4, Goal Progress.
1. ***Based on the student learning outcome data, what are your plans for change in the future?***
* Continue to increase enrollment in the program.
* Continue to maintain the accreditation of Construction Management by ACCE.
* Set efforts to well present the CBST program throughout the state of Alabama and the nation.
* Set effort to brand CBST at Jefferson State one of the best academic programs nationwide.
1. **College Wide**

***Discuss how the program SLO’s as well as the department goals integrate the Institutional Action Priorities, the College’s Long Range Goals and the College’s five year strategic plan.***

* The department of Construction and Building Science Technology is experiencing great success with increasing in its student enrollments and its graduates’ employments.
* Due to the changes in ACCE SLOs standards for accreditation, the program coordinator and faculty take every opportunity to attend ACCE meeting to be well familiar with the new standards.
1. ***Long Range Plans:***
* Accessibility - (1.1). Educational course offerings are made available in the evening hours for all the CBST courses, providing the college opportunities for those who have day jobs.
* Educational Program - (2.1). A final Articulation Agreement was developed and signed by both JSCC and Tuskegee University. By this agreement, qualified JSCC Construction Management graduates are now able to attend Tuskegee university CSM program as 3rd year students with Junior standing and continue to complete their Bachelor degrees in this discipline.

Educational Program - (2.2). CBST students are able to be immediately employed after graduation. Nearly 100% employment rate for CBST graduates witnesses these accomplishments.

* Learning Environment - (3.2). Due to the ever-changing nature of technology, physical facilities, technological resources and other resources are continually being evaluated and upgraded as needed to stimulate student learning.

Learning Environment - (3.3). New trends in construction and building technology requires the program to continually pursue qualified personnel to teach technical classes and be able to assist enabling Jefferson State to fulfill its purpose.

* College/Community Partnership – (5.2) CBST offers a short certificate and an advanced certificate in Construction Management and a short certificate and an advanced certificate in Architectural/Civil Design. These certificates are designed for students who seek industry employment without seeking an associate degree.
1. ***Five year strategic Plan:***
* Mission - The general mission of the Construction and Building Science Program, as contained in the Mission of the College, is to offer programs and activities that reflect those characteristics that help define an educated person. These characteristics include a level of general education that enables the individual to understand his or her culture and environment; the development of skills in analysis, communication, qualification, and synthesis necessary for further growth as a lifelong member of society; the identification of a system of personal values based on accepted ethics that lead to civic and social responsibility; and the attainment of skills that enhance the development of leisure activities and a healthful lifestyle.
* Our Vision - With the quality of CBST academic curriculum, its well qualified faculty, the support from its IAC members, its available technologies, and the support of the college as a whole It is well practicable for CBST to be one of the best two-year construction and building science program nationwide.
* Student Success - 90% of employers surveyed will indicate that graduates were adequately prepared for entry level positions. 80% of graduates will be employed in field, enrolled in college or in the military within one year of graduation. 90% of graduates surveyed will report satisfaction with educational preparation.