Construction Management Quality Assessment Plan

INTRODUCTION
The academic quality plan consists of (1) carefully defining measurable objectives; (2) employing appropriate personnel who are capable of, and motivated to, meet the objectives; (3) providing adequate facilities, equipment and training opportunities for personnel; (4) measuring the effectiveness of the effort in various ways (outcomes); and (5) making improvements where objectives are not fully met. With respect to Construction Management, items (1) and (3) have been described earlier in this report. Information about the Construction Management faculty (Item 2) is in Appendix A. The following is a brief discussion of University-wide assessment efforts. Then a more detailed description of Construction Management assessment techniques is given.

ASSESSMENT IN GENERAL
Personnel—A great amount of effort is exerted to ensure that persons employed by John Brown University will be competent in their position and in agreement with the Christian positions and life style expectations stated by the University. Extensive screening and interviewing at the supervisor and peer level are done to ensure that employees will be effective and exemplary. Formal evaluation processes appropriate to the position are in place for all employees from the President to the student staff. The evaluation process is seen as an aid to improvement rather than an opportunity for destructive criticism.

The effectiveness of administrators is evaluated by peers and selected senior faculty at three year intervals through the use of an anonymous survey.

Faculty assessment is accomplished through a faculty evaluation process that includes student evaluations, growth plans, and formal peer and self-evaluation. The faculty person is accountable to his or her supervisor for the results of the assessment.

Each clerical staff member is evaluated by a direct supervisor. The evaluation is done annually using a standard format and includes an interview, goals setting, and sign off.

Supervisors conduct student staff evaluations each semester using a standard form, which is signed by the student and the supervisor. Supervisors may be administrators, faculty, or staff.

In short, every employee, including Construction Management faculty, receives regular performance evaluations. The purpose of these is to increase the quality of the students’ educational experience.

Facilities—The physical plant director maintains an ongoing assessment of physical plant needs and reports on the same at the semi-annual Board of Trustees meetings. Perceived inadequacies in facilities are brought to the attention of the appropriate authority for action. Immediate problems can be brought to the attention of the physical plant staff through the use of a work order form filed electronically. Emergencies can be handled immediately by a telephone call to the boiler plant which is staffed twenty four hours per day. Two annual surveys by the faculty include questions about facilities.

Students—Outcome assessment tools related to general education, spiritual development, and student satisfaction include tests and surveys that are administered and evaluated by the Offices of Institutional Effectiveness, Enrollment Management, and the Registrar. The results of these are presented at an annually scheduled assessment summit meeting for the purpose of considering results and recommending appropriate action.

CONSTRUCTION MANAGEMENT ASSESSMENT
Outcomes assessment is the quality assurance phase of construction education. The effectiveness of the process is measured by assessing the product. For many years formal and informal feedback from graduates and industry has indicated that the JBU Construction Management program meets the goals given in the previous section (1.C.1.). In 1997, a formal outcomes assessment program for Construction Management was developed and implemented. The program seeks to measure how well the stated mission, goals, and educational objectives are achieved by seven methods:
1. Course and instructor evaluation by the students in all courses (OCE)
2. Student competitions
3. Graduating senior exit interviews
4. Graduating senior Associate Constructor examination (CCC)
5. Graduate survey
6. Employer survey
7. Curriculum review

The results of each assessment are analyzed and deficiencies revealed by any of the assessments are evaluated and may lead to specific actions. The following is a brief description of each assessment tool.

1. **Student Course and Instructor Evaluation by Students**—All Construction Management courses are evaluated near the end of each semester through the use of a standardized questionnaire. (Appendix E, Exhibit 2) The questionnaire results are tabulated by the testing agency that supplies the form. The current instrument is managed by OnlineCourseEvaluations.com and results are made available to the Dean of Undergraduate Studies, the Construction Management Department Head, and the course instructor. A few courses (CM 1112, CM 1122, CM 4713, and CM 4723) that do not lend themselves well to the online format are evaluated through a department-created questionnaire or a brief survey.

A file of past evaluations is kept in the Construction Management Department Head office (Exhibit 2). Any areas of weakness or concern are to be evaluated and addressed by the instructor. There is a Faculty Development support network for assisting the faculty in ways to improve course outcomes. Continuing serious problems will result in intervention by the Department Head, Division Chair, and/or the Dean of Undergraduate Studies.

2. **Student Competitions**—The TEXO – ASC Region 5 competition provides an opportunity for a team of students to develop a construction management or design/construction proposal consisting of an estimate, schedule, design, and other relevant information in competition with other teams. This document together with an oral presentation and a question and answer session measures a student’s knowledge of construction and his or her presentation skills. The results of the competition can be useful in evaluating program content and emphasis. The product of the team’s effort compared to other teams and the comments of the judges provide useful data. Since in 2012 JBU has hosted and participated in a National Disaster Shelter Competition. This requires the students to plan, design, construction, and test a transitional shelter that can be deployed anywhere in the world. There are fourteen criteria that are used to evaluate the structure along with a presentation and written report. Finally, JBU participated in the first National Construction Ethics competition sponsored by the American Institute of Constructors. This inaugural event was held in Dallas Texas in April of 2015 to coincide with their annual meeting.

3. **Graduating Senior Exit Interview**—An annual gathering of graduating seniors and Construction Management faculty is held each year near the end of the spring semester. The students are encouraged to express their opinions about the program of studies. These are informal, frank exchanges with the object of improving the experience for the next generation of students. The Department Head records a written summary of student feedback. Student opinions become the bases for later faculty discussion and possible action.

4. **Graduating Senior Associate Constructor Examination (CCC)**—Each graduating senior is required to take the Certified Professional Constructor Level I Examination (Associate Constructor Examination). Statistical analysis made available by the testing agency is used to evaluate the CM program. The testing agency provides a report that includes national averages and confidential individual University averages (provided only for the students of that University) broken down by test section (content area). An average score for JBU Construction Management students below the national average in any section leads to an evaluation of the related course(s). Weaknesses revealed by the evaluation are addressed. The test report also includes the number of candidates passing and failing the examination at the national and individual University level. If the percentage of JBU Construction Management students failing the exam exceeds the national average corrective action is taken. The specific action is guided by the results of the various test sections. The results of the 2014 / 2015 examinations are discussed later.
5. Graduate Survey—Beginning in 2000, the graduate survey used questions closely correlated to the stated program objectives. Any item receiving an average score of less than 3.5 of a possible 5.0 is evaluated with a view to making improvements. Career placement information is also determined using these surveys. Beginning in 2014, the survey was revised to measure the five program outcomes and conducted in an on-line format.

6. Employer Survey—Some employer feedback is informal and oral. The members of the Industry Advisory Board who employ graduates provide input regularly (presently, eleven companies represented on the Industry Advisory Board employ 26 alumni). When contact with employers of alumni is made through such avenues as recruitment calls, professional meetings, and consulting jobs inquiry may be made about the progress of the alumni.

In addition to the informal feedback, evaluation forms are used to obtain data more systematically. Employers evaluate interns on an evaluation form provided by the Construction Management Department. Employers evaluate graduates using a questionnaire that follows the same format as the Graduate Survey. Feedback from both formal and informal surveys is considered in decisions about curriculum revisions with the goal of addressing the perceived deficiencies and improving the quality of the CM program.

7. Curriculum Review—Course evaluations by students provides information about student perceptions. Surveys of graduates and employers always relate to the curriculum and provide information about perceived strengths and weaknesses. Also, results of the Associate Constructor examination provide very useful comparative data organized by subject matter. All of this information is considered by the faculty before changes are made. Also, the Industry Advisory Board does a curriculum assessment at regular intervals to provide direct input for the program.