

Institution:

University of Maryland of Eastern Shore

Academic unit:

Department of Technology

School of Business and Technology

Program(s) reviewed:

Construction Management Technology

Year in which the review process was Completed and Names(s) of External Reviewer(s): 2014

American Council for Construction Education (ACCE)

Enrollments and Degrees Awarded for Each of the Past Five Years in This Program:

Name of Major	Academic Yr 2009-10	Academic Yr 2010-11	Academic Yr 2011-12	Academic Yr 2012-13	Academic Yr 2013-14
Enrollment	108	101	77	53	42
Degrees Awarded	13	19	14	19	28

Note: The decline in enrollment can be attributed to the decrease in activity in the construction industry due to the economic recession that occurred in the United States during the same time period. Fall 2014 enrollment is project to be 67 majors in the Construction Management Technology program at UMES.

Summary of the **INTERNAL AND EXTERNAL REVIEW:** (Include major findings and recommendations for action. For external reviews associated with regional or programmatic accreditation, please indicate accrediting group and context in which the review occurred.)

OVERVIEW

The centerpiece of UMES' mission is "Providing high quality education to persons who demonstrate the potential to become successful students, particularly from among minority communities, while fostering multi-cultural diversity." While maintaining their foci on their individual program missions and goals to meet students' professional and personal development needs in their respective disciplines, all programs align their missions and goals to the institution's missions and goals.

Mission

The central mission of the Construction Management Technology Program (CMT) at the University of Maryland Eastern Shore (UMES) is to serve the Eastern Shore Region, The State of Maryland and the Nation by improving the professional technical practice of construction. The mission is

achieved through high quality instruction, research and service.

Goals and Objectives

The goal of the Construction Management Technology program is the preparation of well-educated professionals for challenging careers in the construction industry. Learning experiences are combined from the fields of construction technology, architecture and business administration to prepare professionals with the ability to manage and supervise the total construction process. Graduates qualify for employment with general contracting, construction management and subcontracting firms and in government. Positions range from company president, project manager, superintendent, project engineer, office engineer, field engineer, estimator, scheduler and safety inspector.

The objectives for the Construction Management Technology program in the Department of Technology are as follows:

1. To maintain and expand the industry supported Endowment Fund and Enhancement to provide resources for scholarships, program development, and faculty development.
2. To increase the number of students in the program to support increasing course sections and additional faculty.
3. To maintain program accreditation with the American Council for Construction Education (ACCE).
4. To expand the involvement of program students and faculty in construction professional associations at the local, state and national levels.
5. To increase research and service opportunities for construction faculty which supplement and support classroom teaching responsibilities.
6. To acquire additional laboratory equipment, supplies, and teaching materials required to support academic and research efforts of the program.
7. To increase Construction Management Technology budget commensurate with additional students.
8. To increase the quality and variety of Construction Management Technology courses being offered.

Below is the summary of internal and external reviews of the Construction Management Technology program at UMES.

INTERNAL REVIEW

The following strengths and weaknesses were identified in the assessment cycle for the Construction Management Technology Program.

Strengths

Program Support: The CMT Program is supported by faculty, staff, students, administration, advisory council, graduates and the construction industry. This is evidenced by their enthusiastic support and willingness to provide assistance in CMT Program activities.

Administration: The construction program is held in high regard by the university administration which provides resources for effective leadership at the department and program level. The CMT Program supports many of the goals of the university's 1890 Land-Grant Mission.

Students: The quality of students is a major strength of the CMT Program. Recent admissions data support improving academic quality of beginning student. In addition, students are very enthusiastic about their major and they participate in nearly all program activities.

Curriculum: The construction curriculum provides a sound foundation for preparing students for professional positions in the construction industry. The curriculum supports the goals of the CMT Program and provides balanced content in general education, mathematics and science, construction sciences, business management and construction practices.

Program Assessment: An effective program assessment model is in place and is functioning to monitor and improve administration, curriculum, faculty and facilities for the CMT Program.

Facilities: The physical facilities (Thomas and Briggs Arts and Technologies Center) available for the CMT Program are a major strength supporting the curriculum, faculty, staff and students.

Relations with Industry: Many local and regional (Baltimore/Washington) construction industry firms have developed a good working relationship with the CMT Program. This is supported by advisory council participation and the employment record of graduates and student interns.

Weaknesses

- Budget: There has been a lack of significant growth in the operational budget for the Department and the Construction Program during the past five years. In addition, there has not been a budget to purchase capital instructional equipment to keep pace with changing technology. This is considered a crucial need for program growth and development.
- Student Scholarships/Recruitment: Additional student scholarships, printed media, and personnel are needed to improve recruitment and foster program growth.
- Instructional Equipment: It has been difficult to remain current with developments in the industry. New laboratory equipment is needed to support courses taught on campus and at Shady Grove.

Opportunities and Challenges

- Strengthen and improve course delivery to include distance learning opportunities for Shady Grove students.
- Continue to strengthen student recruitment for the construction program by providing additional support and resources for scholarships and promotional materials.
- Improve the coordination and placement of students in Construction Management internship experiences.
- Invite more construction firms to campus to address various construction topics and to

recruit students for internships and permanent job placement.

- Increase fundraising and donations to support the Construction Program Endowment Fund.
- Periodically offer short courses and seminars on construction safety and other topics of interest for construction industry professionals.
- Construction faculty and students should develop relations with additional construction professional associations both locally and nationally.

EXTERNAL REVIEW

The most recent national review of the Construction Management Technology Program was conducted by the American Council for Construction Education (ACCE), a specialized professional association in March 2014. The Program was nationally recognized. The Program Report for the Preparation of Construction Management Technologist and the National Recognition Report are attached. The next national accreditation visit will take place in Spring 2020. The Construction Management Technology Program is accredited through Spring 2020.

External Review Findings:

- 1. The construction education unit and/or program is headed by a qualified administrator who has sufficient authority, support, and time to accomplish the education program's goals and objectives.**

Dr. Derrek Dunn is the Chair of the Department of Technology and is responsible for not only the Construction Management Technology Program but two other undergraduate degree programs, Engineering Technology, and Technology Education, as well as a graduate program. Dr. Dunn is responsible for the Construction Management Technology Program at both Princess Anne and at the Universities of Shady Grove. Dr. Dunn is recognized by administrators, faculty, and staff as such a qualified administrator with sufficient authority and support to accomplish the education's program's goals and objectives, that Dr. Dunn has been identified by the Visiting Team as a Strength of the UMES Construction Management Technology Program.

However, the Visiting Team also finds that Dr. Dunn's time is extremely stretched to accomplish the goals and objectives of the program. The Visiting Team notes that the last Visiting Team identified two leadership Concerns, the need for a Construction Management Technology Program (CMT) Chair at UMES to assist with the running of the program and succession planning, and as a solid start, an on-site administrator at Shady Grove. This Visiting Team is only aware of the Interim Director position at Shady Grove.

The Visiting Team finds the Chair's limited time for leadership a Weakness of the Program, and the basis for suggesting the budget needs to support leadership at the program level at both campuses. The Visiting Team suggests appointments of leadership at the program level would help to fully realize the benefits of the Chair's abilities and potential, including consistency of enhanced

curriculum, administrative duties, and support of the growth of the CMT Program.

- 2. The institution and the construction unit and/or program administrator insure that the total administrative work load is carefully controlled in relation to the total work load of the administrator.**

The Visiting Team finds that the Chair strives for and attains a balanced administrative workload for the administrative assistant and faculty. However, the Visiting Team also finds limited time is a hindrance for more in depth administrative and leadership for both campuses. The Visiting Team finds the Chair's increasing leadership responsibilities and limited time a Weakness of the program.

- 3. The administrator provides sufficient leadership and supervision to develop a strong academic program.**

The Visiting Team finds that the Chair of the Department of Technology, since appointed in 2012, has proven his leadership and supervisory skills leading the Construction Management Technology Program. The Visiting Team also finds that with the responsibility of the Department of Technology, the Chair's limited time is identified as a Weakness.

- 4. The organization structure of the construction education unit is designed to encourage communication, coordination, and interaction between administrative officers, faculty, students and other disciplines.**

From interviews with administration, faculty, students, and chairs of other disciplines, both at Princess Anne and Shady Grove, the Visiting Team finds that the structure of the Construction Management Technology Program is designed to facilitate communication, coordination, and interactions with administrative officers, faculty, students, and other disciplines. From interviews with chairs of other departments, the Visiting Team finds communication with the Construction Management Technology Program has helped them address any scheduling barriers, customizing of courses for construction, and remedial assistance as required.

- 5. The administrative structure is sufficiently flexible to make the functional changes necessary to attain program objectives.**

The Visiting Team finds the administrative structure is sufficiently flexible to make the functional changes necessary to attain program objectives.

- 6. The administrator encourages professional development of faculty, and administrative policy insures that opportunities for professional development are made available and used by the faculty.**

The Visiting Team finds professional development for faculty is encouraged by administration but not supported through funding and therefore identified by the Visiting Team as a Weakness.

7. The administrator and the faculty cooperate to develop a program of high quality and establish a structure to facilitate planning and evaluation for continuous improvement of the program.

The Visiting Team finds the administrator and the faculty both cooperate and collaborate to develop a program of high quality and establish a structure to facilitate planning and evaluation for continuous improvement of the program both at USG and Princess Anne. The Visiting Team finds faculty members are Strengths in the program.

Program Strengths:

1. Based on input from administration, administrative support, faculty, students, and industry, Dr. Derrek Dunn is identified by the Visiting Team as a major Strength of the Construction Management Technology Program for his vision, collaboration, continuous effort, and leadership as the Chair of the Department of Technology.
2. The Visiting Team identifies the faculty and staff as Strengths of the Construction Management Technology Program and are noted for their collaboration with each other and with their students.
3. The Visiting Team finds the Industry Advisory Board a Strength to the program for their continuous support of the program, and awareness of the need for growth.
4. Students are identified by the Visiting Team as a Strength of the program for their enthusiasm about their Construction Management Program and their future in the industry.
5. The satellite campus of Universities at Shady Grove in Rockville, Maryland under the leadership of Bijan Shapoorian is identified as a Strength of the Construction Management Technology Program.

Specific Observations and Recommendations from the External Review:

1. The Industry Advisory Board has been identified by the ACCE Visiting Team as a strength of the Construction Management Technology Program. However, the strengthening of relationships between the Industry Advisory Board, the Construction Management Technology Program, and the Administration is also identified as an Undeveloped Potential for partnerships for ideas, input, and support to help build, fund, sustain, and grow the program.
2. Awareness of Industry Association scholarships, competitions, and affiliations is identified by the ACCE Visiting Team as an Undeveloped Potential.
3. Development and expansion of the Construction Management Technology website is an Undeveloped Potential to raise awareness of the program, and for marketing and recruitment.
4. The ACCE Visiting Team finds lab use an Undeveloped Potential. The students, who are Strengths of the program, emphasized a desire to use existing labs to their potential for hands on projects and supervised lab experiences.
5. The ACCE Visiting Team finds recruitment and marketing an untapped potential. As the demand from industry is increasing to employ Construction Management Technology graduates, a collaborative marketing and recruitment effort is recommended to have a substantial impact on increased enrolment in the program.

6. Representation and attendance at the American Council for Construction Education meetings is an undeveloped potential for collaboration, for continuous updates, and for best practices gleaned from other Construction Management programs, and Industry Advisory Boards. For example, best practices might include funding ideas, new technologies and industry practices emerging, clarification of standards, and the future direction of learning outcomes.

Departmental/college/institutional action plan for addressing recommendations, including mechanisms for following up and assessing progress:

The Department will seek opportunities to address the 6 recommendations from ACCE as follows:

1. The Construction Management Technology (CMT) program will continue to strength its relationship with its Industrial Advisory Board (IAB) by hosting three meetings per year, i.e. Fall, Spring, and Summer. In these meetings we will discuss opportunities ideas for partnership, input on curriculum issues, scholarship fund development, and program growth.
2. Ensure CMT Students apply for industry association scholarships and the Department pursue funding for CMT students to participate in industry student competitions, and.
3. Increase the web site presence of the Construction Management Technology program by employing a webmaster.
4. Increase the number of projects assigned to students in their course work which requires the use of the Department of Technology laboratories facilities.
5. Increase the Department of Technology interaction with UMES Office of Enrollment Management to facilitate recruiting for the Construction Management Technology program.
6. The Construction Management Technology will send a representative to the Mid-year and Annual ACCE national meetings to ensure the program receives for discussion and possible implementation: continuous accreditation standards updates, curriculum best practices information, funding ideas, new technologies, and emerging industry practices.
7. The weakness noted by the ACCE visiting team in term of the Departmental Chairperson time is being addressed by the permanent hire of Mr. Bijan Shapoorian as the Director of the Construction Management Technology program at the Universities at Shady Grove in Rockville, Maryland.
8. Also, the weakness noted by the ACCE visiting team in term of the Departmental Chairperson time is being addressed by the Department submitting are quest to hire Lecturer/Laboratory Technician to support the activities of the Technology program.
9. The weakness noted by the ACCE visiting team in term of faculty development is being address by the Technology faculty applying for Faculty development funds offered by the Title III office at the University.

Mechanisms for Following Up and Assessing Construction Management Technology Program:

All recommendations will be included in the Department of Technology Strategic Plan 2014-2015 academic year as an addendum. Progress towards their accomplishments will be monitored using the current UMES form for the Strategic Plan Progress Report. The form details 1) Indicator Baseline, 2) Indicator Target 3) Actual Indicator Results and 4) Changes Planned, Implemented or

underway for each recommendation.

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