Undergraduate Program
Annual Report
2016-2017 Academic Year

1. Facts

<table>
<thead>
<tr>
<th>Semester/Year</th>
<th>Number of Students</th>
<th>Percent Increase from 2015-2016 Academic Year</th>
<th>Number of Students Taught</th>
<th>Percent Increase from 2015-2016 Academic Year</th>
<th>SCH Generated</th>
<th>Percent Increase from 2015-2016 Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2016</td>
<td>1,061</td>
<td>3.77%</td>
<td>3,524</td>
<td>8.20%</td>
<td>9,982</td>
<td>8.78%</td>
</tr>
<tr>
<td>Spring 2017</td>
<td>1,044</td>
<td>1.00%</td>
<td>3,386</td>
<td>14.15%</td>
<td>10,079</td>
<td>8.63%</td>
</tr>
<tr>
<td>Summer 2017</td>
<td>503</td>
<td>-4.57%</td>
<td>725</td>
<td>-17.24%</td>
<td>1,859*</td>
<td>-27.65%*</td>
</tr>
<tr>
<td>Total</td>
<td>2,608</td>
<td>0.58%</td>
<td>7,635</td>
<td>8.42%</td>
<td>21,920*</td>
<td>5.62%*</td>
</tr>
</tbody>
</table>

*Preliminary data for Summer 2017 SCH Generated received September 22, 2017 from Texas A&M University Data and Research Services. Summer 2017 and Total SCH data may be subject to change when final data are available.

2. Strategic Plan Progress

The Department of Construction Science 2016-2021 Strategic Plan was approved and adopted by faculty vote February 4, 2016.

The Strategic Plan contains the COSC Department’s goals, objectives, strategies, and metrics of performance for the department for the five year period beginning on the date of adoption and continuing through August 2021. The Strategic Plan was composed, reviewed, commented on, and refined by faculty, industry representatives, students, and staff over a period of several months from August 2015 to February 2016. The Strategic Plan represents a consensus, in many cases a compromise, which the department collectively endorses. As time passes, additional goals may be identified, others deleted, and some modified and/or amended.
3. **Goal of Undergraduate Program**

**Goal 2:** We will maintain a strong general, relevant, current, comprehensive, and broad based undergraduate degree program, founded in construction fundamentals applicable to all sectors of the industry and responsive to the ever evolving industry and industry trends.

**Objective 1:** Introduce, encourage and support innovative uses of technology that enhance delivery methods and the educational experience.

Faculty have received technology grants to redevelop a course; attended pedagogy-related professional development trainings; and an ITS staff member is located in the building to provide technical assistance to faculty, staff, and students. Students use computer technology to complete and submit homework, assignments, exams, and use software programs such as: On Screen Takeoff; Auto CAD; Plan Grid Software; Building Information Modeling (BIM) authoring tools; Revit MEP; Revit Structure; Navisworks Manage; P3; MS Office Suite; etc. to complete coursework.

By Fall 2016, 91% of undergraduate courses taught reported a technology component embedded within the course. As of Fall 2016, the Department of Construction Science has exceeded the Fall 2017 target metric of 50% of undergraduate classes having a technology component embedded within their course.

**Objective 2:** Graduate more students in fewer semesters and enhance their focus on curricular progress and time to graduation.

The Department has implemented and continues to: review student prior academic performance as an indicator of graduation success for internal and external transfer student applications; create and act upon lists of students who are potentials for probation or dismissal; visit targeted courses in order inform students of relevant deadlines, actions, and information regarding degree and graduation requirements. The review of prior performance in departmental efforts to expedite student graduation will occur in Fall 2017.

During the 2016-2017 Academic Year 259 students graduated with a Bachelor of Science degree in Construction Science, a 20.1% increase from the 2015/16 academic year. Trend data reported by Texas A&M University’s Data and Research Services indicate the time to graduation for a Baccalaureate degree in the Department of Construction Science has decreased by 4% in a six year time period from AY2010/11 to AY 2015/16. Calculations for Time to Degree through AY 2016/17 are not yet available as of September 28, 2017.

The 20% increase in graduates and 4% decrease in time to graduation indicates the strategies implemented are yielding positive results and the Department of Construction Science is successfully achieving Objective 2.
NOTE: Official calculations for Time to Degree through AY 2016/17 are not yet available as of September 28, 2017 from the Texas A&M University Data and Research Services.
Objective 3: Maintain accreditation by the American Council for Construction Education (ACCE) and/or other recognized agencies in the construction higher education field.

The Department of Construction Science will have its 6-year re-accreditation visit in October 2017. In accordance with ACCE requirements and deadlines, the Self-Study was submitted to ACCE May 2016. In accordance with ACCE protocols, the Department of Construction Science submitted appropriate and timely Interim reports of progress towards addressing concerns and/or weaknesses identified in the 2011 ACCE re-accreditation.

Weaknesses and Concerns from the 2011 ACCE re-accreditation visit have been addressed. The Department has implemented the 20 ACCE student learning outcomes (SLO) assessment requirements as part of its Academic Quality Plan and Assessment Cycle. The Self-Study for the October 2017 re-accreditation was submitted to ACCE in May 2017 and the Department is currently preparing for the October 2017 re-accreditation site-visit.

Objective 4: Recruit a more diverse group of students and increase retention through better education, advising and mentoring.

AY 2016/17 Senior Exit Survey data indicates students’ satisfaction with academic support received marginally declined during the year, while their satisfaction with career support and overall education increased. The department now has three full-time academic advisors and has hired 6 new full-time faculty which is expected to increase student access to academic support, thereby increasing satisfaction levels in future graduates.

During summer 2017, the Department of Construction Science partnered with industry to host a series of six five-day Construction Management Academy Career Exploration Programs for current high school students in five Texas locations. The programs targeted under-represented youths ages 14-17 in order to create awareness of career opportunities within the Construction Science industry. Students attending these camps were very diverse and included: 40% Hispanic, 25% African America, 5% Indian, 5% Asian, and 25% White. The Department and College of Architecture recruiter also continue to recruit at community colleges with a high percentage of minority students. Additionally, during the last year, the department hosted numerous high school groups from the state and local community. These groups were very diverse and included, Africa-Americans, Hispanics, and females. The Women in Construction Day Conference target launch rescheduled to Fall 2018.

By Fall 2016, the Department of Construction Science undergraduate student body was composed of 21.5% Hispanic, 2.3% African American, 1.6% Asian, 2 % Multi-Racial, and was 10.2% female. As of September 28, 2017, official demographic data for AY 2016/17 are not yet available from the Texas A&M University Data and Research Services. Fall 2016 demographic data indicate the Department of Construction Science is successfully moving toward achieving the metrics of Objective 4 of the undergraduate student body being composed of at least 3% African American, 23% Hispanic, and being 20% female by the target date of Fall 2021.
Objective 5: Along with our constituency, review and restructure the undergraduate curriculum and classes in a way that addresses the Department’s Centers of Excellence.

The department is currently in the process of re-accreditation. The Self-Study was submitted for ACCE re-accreditation team review in May 2017 and the re-accreditation site visit is scheduled for October 2017. Curriculum review and revision will begin at the CIAC meeting in the Fall of 2017 and launch in the Spring of 2018 in order to incorporate re-accreditation findings and recommendations.

Objective 6: Review the interest in the Facility Management Minor (in terms of industry support and student growth), and seek approval, implementation, and promotion of the Leadership in the Design and Construction Professions Minor.

The University Curriculum Committee approved the Minor in Leadership in the Design and Construction Professions in AY 2016/17 and the Department started offering courses or the Leadership minor in Fall 2016. The Facility Management minor was promoted to industry professionals at multiple professional conferences during AY2016/17 and faculty visited with and spoke to members of several local chapters to create awareness of the Facility Management Minor program. The Assistant Department Head also attended board meetings and promoted the program to industry professionals through professional venues.

During the 2016/17 Academic Year, the undergraduate Minor in Facility Management continued to grow, with a record high enrollment of 84 students (Fall 2016 semester). The Fall 2016 enrollment numbers indicate the Department is making successful progress of meeting target enrollment of 150 students in the Minor by Fall 2019. During the year (Fall 2016, Spring and Summer 2017 semesters), 17 students graduated with the minor. Also in AY 2016/17, a new class was added to the program as an elective – Project Management for Facility Managers, and was offered for the first time ever in the Fall of 2016.

3. Academic Quality Plan

The Academic Quality Plan (AQP) for the undergraduate program is a comprehensive plan for quality improvement of the program and its students through the development and assessment of educational objectives and student learning outcomes. The AQP was substantially revised during the 2015/16 academic year (AY). The Assessment Program Coordinator met with individual faculty members to determine what measures they were using to assess student learning objectives (SLOs). Faculty members also had input on how the department would define the 20 student learning objectives required to be met by programs accredited by the American Council for Construction Education (ACCE). Once input from faculty were collected and included in the AQP revisions, the Assessment Program Coordinator met with department administrators to review the draft AQP. The revised AQP was presented to the faculty in September of 2016 and adopted by unanimous faculty vote.

The SLO data collection protocols and assessment plan of the revised AQP were implemented during AY 2016/17. In accordance with the procedures outlined in the revised AQP, data were collected from faculty during the Fall 2016 and Spring 2017 semesters, analyzed, and compiled into SLO Notebooks for submission to ACCE in accordance with ACCE guidelines for the departmental re-accreditation visit in October 2017.
4. Diversity Plan
   During summer 2017, the Department of Construction Science partnered with industry to host a series of six five-day Construction Management Academy Career Exploration Programs for current high school students in five Texas locations. Students attending these camps were very diverse and included: 40% Hispanic, 25% African America, 5% Indian, 5% Asian, and 25% White. The Department and College of Architecture recruiter also continue to recruit at community colleges with a high percentage of minority students. Additionally, during the last year, the department hosted numerous high school groups from the state and local community. These groups were very diverse and included, Africa-Americans, Hispanics, and females. As discussed in Goal 2, Objective 4, the department continues to work closely with a number of construction companies to enhance our presence in locations with diverse populations.

5. Important changes needed in your unit during the next year and your suggestions on how to achieve them.
   The Department has determined 2018 is “the year of the curriculum.” After listening to past accreditation and the most recent 2017 accreditation early feedback, COSC will work with the CIAC and its other constituents to update several known concerns including using technology in the classroom, exploring Project Management and Program management, increased focus on business lines like industrial and facility management, all while streamlining and aligning material taught in multiple classes to harmonize in a progressively rigorous approach.

6. Main concerns of your units’ performance in the next year and how you plan to address them.
   The department has three major concerns, time to graduation, faculty to student ratio, and graduate program alignment. While the last one is NOT an undergraduate concern per se, it still has implications for keeping our undergraduate curriculum fresh, tied to industry norms, and research brought into coursework. Upon receipt of the new Provost’s analytical measures for Departmental program success, these are also the most likely areas of concern for the College and the Provost. Time to graduation remains a concern. Solutions for ensuring successful student graduation rate are the use of stringent acceptance standards; most recently resulting in an average GPA of transfer students at a 3.75 GPA. Additionally students will require too many credit hours to finish in a timely manner are usually not admitted to the undergraduate program, furthering our likelihood of success. The second major concern, faculty to student ratio, was helped slightly by the hiring of 6 new faculty in the summer of 2017, but did not solve the problem. With nearly 1100 students and 36 faculty we have almost 30 students for every faculty member. When factoring in the amount of strong research faculty we hired, we did not reduce our faculty load significantly and students continue in large sections for upper level courses. We aim to reduce our faculty to student ratio in line with University average, which means we need to hire another 10-13 faculty. Space will be an issue.