

**Construction Science Department
Texas A&M University
Strategic Plan**

Introduction

1. The Construction Science Department's Strategic Plan is to provide purpose and direction for the department. It sets priorities and provides a common vision that every member of the department should consider in their day to day activities. This strategic plan was adopted by a faculty vote on Feb 4, 2016.
2. The goals and objectives set forth in this plan demonstrate our commitment to excellence in construction education, research, and service and extension. To the extent that excellence is to be achieved we must be mindful that we have few peers against which our metrics can be compared. Therefore, we must continually improve upon and compare ourselves on our past performance and against our strongest peer institutions.
3. This document contains the goals of the Department for the five year period beginning on the date of adoption and continuing through August 2021. It was created over a period of several months from August 2015 to February 2016, with every faculty member getting opportunities to participate in and contribute to the process. In addition, industry representatives, students, and staff participated and offered suggestions for improvement and direction. It 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.
4. This document includes goals, objectives, strategies, and metrics of performance as defined below.
Goals: Goals consist of short-term, mid-term, and/or long-term broad issues of importance for the department to work towards.
Objectives: Objectives are more specific than goals, and are measurable.
Strategies: Lay out a plan of action, including who, what, and how the objectives should be achieved.
Metrics: Specify what indicators should be used that constitute successful accomplishment of our objectives.
5. It is recognized that fluctuations are likely and that they are expected. Thus, most metrics of performance should be evaluated as a three-year rolling average. For purposes of establishing a baseline measurement, the period of Fall 2012 through Spring 2015 will be used as the three-year average.
6. The goals, objectives, strategies and metrics of performance are consolidated in the following five sections: the Department, Undergraduate Program, Graduate Program, Research and Scholarly Activity, and Service and Extension.

Vision

The hallmark of the Texas A&M University Construction Science Department will be a culture of excellence that supports the College of Architecture and Texas A&M University mission and strategic plans.

Mission

The Construction Science Department is dedicated to education, discovery, development and application of knowledge in the field of construction while fulfilling the land grant mission of Texas A&M University and enhancing the economic development of the State of Texas. Our mission of providing the highest quality academic programs is inseparable from our mission of developing new understanding through teaching, research and service. We prepare students to assume roles in leadership, responsibility, and service to society.

**Construction Science Department
Texas A&M University
Strategic Plan**

Goal Inventory

The Department

Goal 1: We will be recognized as one of the preeminent construction education programs in the United States and internationally, and as a premier construction education program. *(6 Objectives)*

Undergraduate Program

Goal 2: We will maintain a strong general, relevant, current, comprehensive, 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. *(6 Objectives)*

Graduate Program

Goal 3: We will establish the direction of the MSCM as an advanced course of study in construction management with a focus on producing advanced student work that contributes to the research agenda of our research faculty. *(5 Objectives)*

Research and Scholarly Activity

Goal 4: We will be engaged in discovery and research related to the built environment both in construction and related disciplines to enhance the economic development of the State of Texas and to extend the frontiers of knowledge. *(1 Objective)*

Service and Extension

Goal 5: We will maintain connections with communities, industry, professional associations, and accreditation groups through engagement in public service, public relations, internships, and student chapters. *(1 Objective)*

**Construction Science Department
Texas A&M University
Strategic Plan**

The Department

Goal 1: We will be recognized as one of the preeminent construction education programs in the United States and internationally, and as a premier construction education program.

Objective 1: Identify and establish areas of concentration as Centers of Excellence.

Strategy: The Department Head or Designee will facilitate the development of one or more concentrated areas of teaching, research and service in construction. The departmental faculty and industry partners will collaborate in identifying these branded areas of concentration.

1. Fall 2016 - A task force of faculty will identify those characteristics within the department's faculty that signify where our academic emphasis should be directed. It is essential that only a few areas are identified to be developed into concentrations.
2. Spring 2017 - The task force will submit the concentrations to a vote of faculty for approval.
3. Fall 2017 - The task force will produce documentation formalizing the concentration areas and the instructional controls necessary to ensure effective leadership, active participation, and quality assessment.
4. Fall 2017 - The finalized concentration areas will be presented to the Construction Industry Advisory Council for review and comment by the task force.
5. Spring 2018 - The task force will finalize each area as a Center of Excellence by producing policies and procedures that will ensure long-term support and integration into departmental activities, i.e. curriculum development, faculty search, budgeting, endowments, grants and publications.
6. Fall 2019 – Complete curriculum revisions will be submitted by the Undergraduate Curriculum Committee and the Graduate Curriculum Committee to a vote of faculty for approval.

Metrics: By Fall 2018, the department will have established one or more Centers of Excellence that will have defined controls, budgets, processes, and events that can be measured for success and branded as excellent in quality.

Objective 2: Define excellence in teaching, research, and service and draft policies and procedures for promotion and/or tenure for all faculty.

Strategy: The Department Head or Designee will facilitate a program that will ensure the teaching, research and service excellence of the faculty, part of which expectations for promotion and/or tenure will be defined. The program will have as its mission the excellence of faculty in pedagogical knowledge and will ensure faculty either gains an understanding of the construction industry or remains current in their understanding of the industry. The program will also have as its mission the excellence of a core group of research faculty and will ensure these faculty are performing significant research.

**Construction Science Department
Texas A&M University
Strategic Plan**

1. Fall 2016 – The department will continue its “Excellence in Teaching” program that includes a training academy for all COSC faculty at least once every two years and a faculty internship program for selected new faculty.
2. Spring 2018 - Create and submit a manual of policies and procedures regarding excellence in teaching, research and service for review, comments and discussion by the COSC faculty.
3. Spring 2019 - Submit a final manual regarding excellence in teaching, research and service to the COSC faculty for approval.

Metrics: By Fall 2020, the department will have in place a system for faculty training and assistance to help them achieve excellence in teaching, research and service.

Objective 3: Develop and maintain a departmental Academic Quality Plan and Assessment Plan.

Strategy: The Department Head in conjunction with the Executive Committee will facilitate a program that ensures the regular updating of the Academic Quality Plan and the Assessment Plan. The purpose of the plan will be to assess our performance annually in an Academic Quality Assessment Implementation Report. The main responsibility for interpretation of assessment results and recommendations for quality improvement changes lay with the Department Head and his/her Designees (members of the Executive Committee).

1. Fall 2016 – The department will update and improve its comprehensive plan for quality improvement of the program and its students through development and assessment of Educational Program Objectives as well as Student Learning Outcomes through internal and external measures of student achievement.
2. Fall 2016 - Create and submit a draft program manual of Academic Quality Plan and Assessment Plan for review, comments and discussion by the COSC faculty.
3. End of 2016 - Submit the final version of the Academic Quality Plan and the Assessment Plan to the COSC faculty for approval.
4. Each semester 2017-2021 – Regular meetings of the Undergraduate Curriculum Committee and the Graduate Instruction Committee are held to review assessment data, evaluate Educational Program Objectives and Student Learning Outcomes, develop appropriate action plans, and examine the implementation of previous semesters’ action plans.

Metrics: By the end of 2016, the department will have in place a revised departmental Academic Quality Plan and Assessment Plan that will be reviewed and updated regularly. The Department Head will summarize assessment results in accordance with TAMU Assessment Processes and the American Council for Construction Education (ACCE) Assessment Processes. The Executive Committee will implement improvements based on findings in the assessment report upon the review and advice of the Undergraduate Curriculum Committee and the Graduate Instruction Committee.

**Construction Science Department
Texas A&M University
Strategic Plan**

Objective 4: Ensure the long-term strength of the department through endowments that bolster the operational needs of the department, faculty and students.

Strategy: The Department Head will facilitate the administration of an effective endowment program that meets the operational needs of the department, faculty and students.

1. Fall 2017 - Create an inventory of operational and academic needs that require new endowment(s).
2. Spring and summer 2018 – Work with the Construction Industry Advisory Council (CIAC) and with the Texas A&M Foundation to identify potential contributors to endowments that support the departmental mission and Centers of Excellence.
3. Fall 2018 - Publish and promulgate the operational needs of the department to the slate of potential contributors for the endowments.

Metrics: By Fall 2021, the department will have established new endowments that respond to the support and growth of the Centers of Excellence.

Objective 5: Develop and maintain an effective marketing, communications, and recruitment platform to inform students, potential students and the public of the educational options and opportunities offered by the department, using Internet and social networks.

Strategy: The Department Head or Designee and departmental staff will facilitate and maintain an effective and accurate web-based presence for the department. This will include the investigation and potential development of a plan that utilizes the technologies of social networking for the recruitment of targeted students within the freshman, change of major, transfer student admission programs, and graduate students.

1. Summer 2016 – Ensure that the department’s web presence is current and accurate.
2. Fall 2017 – Review the needs and requirements for effective social networking and improve the departmental presence.
3. Spring 2018 – Implement any new technologies, as appropriate, which assures currency and maintenance.
4. Fall 2018 – Seek new innovative methods for enhanced communications and maintenance.

Metrics: By Fall 2018, the department will have evaluated and implemented an improved, comprehensive and innovative communications presence that has an assured maintenance program.

Objective 6: Maintain an up-to-date inventory of all departmental policies, regulations, rules and procedures.

Strategy: The Department Head together with the Associate Department Head and all Program Coordinators, with assistance of the departmental staff, will facilitate the on-going maintenance and regular updates of the departmental policy and procedures manual.

1. Each Summer – Review the inventory of existing policies, regulations, rules and procedures, and determine any changes and/or updates that are needed in it.

**Construction Science Department
Texas A&M University
Strategic Plan**

2. Each Fall – Submit a draft manual of new or revised policies and procedures for review, comments and revisions by the stakeholders, in preparation for final edit.
3. Each Spring – Create a final draft of new or revised policies, regulations, rules and procedures.

Metrics: The department will always maintain a current policies and procedures manual.

**Construction Science Department
Texas A&M University
Strategic Plan**

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.

Strategy: The Department Head through the Undergraduate Program Coordinator and additional faculty, as designated, will facilitate the enhancement of the educational experience through use of technology in teaching, as well as teaching the use of technology with industry.

1. Allow professional development training and provide technology support – allow faculty and staff to ensure a baseline proficiency in technology, bring in outside resources as needed for technological support.
2. Ensure technology is an integral part of learning and teaching – encourage faculty to use technology in the management, instruction, assessment and communication of their courses.

Metrics: By Fall 2017, 50% of our undergraduate classes will have 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.

Strategy: The Undergraduate Program Coordinator, in collaboration with the Construction Science Department Head and Assistant Dean for Academic Affairs will admit students committed to the demands of an accelerated top-tier education. The Undergraduate Program Coordinator, in collaboration with the Academic Advisors, will facilitate student knowledge and understanding of the requirements for successful progress toward graduation; the emphasis will be to decrease time to graduation and to improve retention rates.

1. Each semester – Internal Transfer and External Transfer student applications for admittance to Construction Science will be reviewed for students whose prior academic performance indicates dedication to accelerating their graduation.
2. Each semester - Lists of students who are potentials for probation or dismissal will be created and acted upon accordingly by comparing student credentials to standards established by the College and the Department for student Admission and Retention.
3. Each semester – Visits will be made to COSC 175, COSC 381, and all Capstone courses to make announcements regarding the following (where applicable): student advising, upper level applications and requirements, necessity of understanding and complying with pre-requisites, requirements for internship, the need to update and submit a current degree plan in degree planner, and the necessity of filing for degree and preparing for graduation.

**Construction Science Department
Texas A&M University
Strategic Plan**

4. Fall semester of every odd calendar year – The department will evaluate prior performance in its efforts to expedite student graduation.

Metrics: By 2019, graduate 270 undergraduate students per academic year.

Objective 3: Maintain accreditation by the American Council for Construction Education (ACCE) and/or other recognized agencies in the construction higher education field.

Strategy: The Department Head or Designee will facilitate the required activities necessary to remain active in ACCE and/or other recognized agencies in the construction higher education field. The Undergraduate Program Coordinator will review, complete, and finalize the first draft of the accreditation documents. The Department Head will edit and submit the final documents to ACCE.

1. As required – Timely submittal of Final Self-study document to ACCE in accordance with schedule timeline prescribed by ACCE for each Re-accreditation visit. Effort to commence one calendar year prior to the time Self-study is due for submittal to ACCE.
2. As required – Review and analyze ACCE letter summarizing Board of Trustees reaccreditation action. Respond with Interim Reports as required by ACCE.

Metrics: Any weakness and/or undeveloped potential which is cited by ACCE in its report from the Board of Trustees action regarding the Re-accreditation of the Construction Science undergraduate program, will be responded to timely, in accord with the Interim Reports schedule provided by ACCE.

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

Strategy: The Undergraduate Program Coordinator will focus on recruiting a more diverse group of students and prepare a recruitment, performance and retention report to the Department Head. Within this report the Undergraduate Coordinator will propose necessary program changes that will potentially increase student retention.

1. Each semester – A comparative analysis of current graduating senior’s responses on the Exit Survey will be conducted; current responses will be compared to prior exit survey results.
2. Each semester – A minimum of three visits will be made to community colleges and high schools with diverse populations, primarily African American and Hispanic.
3. Fall 2016 – Reach out to the Society of Women in Construction (SWIC) and prominent women in the construction industry about presenting at a Women in Construction Day to be hosted by the Department.
4. Spring and Summer 2017 – Prepare and distribute materials promoting Women in Construction Day to high school counselors and community colleges.
5. 2017 through 2020 (September of each year) – Host a “Women in Construction Day” on-campus.

**Construction Science Department
Texas A&M University
Strategic Plan**

Metrics: By Fall 2021, the department will increase the minority population of the undergraduate student body to 3% African American, 23% Hispanic, and 20% female.

Objective 5: Review of and restructure the undergraduate curriculum and classes in a way that addresses the Department's Centers of Excellence.

Strategy: The Undergraduate Curriculum Committee, in collaboration with the Undergraduate Program Coordinator and the Construction Science Department Head will review the curriculum and courses offered in the undergraduate program. The emphasis of the curriculum revision will be to update the curriculum to reflect the needs of the industry and the areas of concentration as reflected in the Department's Centers of Excellence.

1. Spring, Summer, and Fall 2018 (after the next ACCE accreditation visit) – Review the undergraduate curriculum and course content. Engage and involve the Undergraduate Curriculum Committee and the COSC faculty at large in this process.
2. Fall 2018 – Have the Construction Industry Advisory Council Curriculum Committee review proposed changes from the Undergraduate Curriculum Committee.
3. Spring 2019 – Complete curriculum revisions will be submitted by the Undergraduate Curriculum Committee to the COSC faculty for review, discussion, and approval.
4. Fall 2019 – Submit curriculum changes for University approval.

Metrics: The revised undergraduate curriculum will be in effect starting in the Fall 2020.

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.

Strategy: The Undergraduate Curriculum Committee, in collaboration with the Undergraduate Program Coordinator, Industry Relations Coordinator, and the Construction Science Department Head will review and monitor the growth of interest in the Facility Management Minor in terms of student enrollment and industry involvement. They will also take on the task of implementing and promoting the Leadership in the Design and Construction Professions Minor.

1. 2016 – Seek University approval of the Leadership in the Design and Construction Professions Minor.
2. Promote the Facility Management Minor among industry to increase industry participation in providing students in the Minor program with internship opportunities and full-time job opportunities.

Metrics: By Fall 2017, enrollment for the Leadership in the Design and Construction Professions Minor will begin. By Fall 2019, enrollment for the Facility Management Minor will increase to 150 students.

**Construction Science Department
Texas A&M University
Strategic Plan**

Graduate Program

Goal 3: We will establish the direction of the MSCM as an advanced course of study in construction management with a focus on producing advanced student work that contributes to the research agenda of our research faculty.

Objective 1: Emphasize and promote advanced study and research in the Master of Science in Construction Management (MSCM) degree program.

Strategy: The Department Head through the Graduate Program Coordinator, with the advice of the Graduate Instruction Committee, will facilitate the continued shift towards an emphasis of quality research and instruction on advanced topics in graduate course work.

1. Spring 2016 – Define graduate faculty membership guidelines in the department. Update website and promotional materials to reflect the shift.
2. Fall 2016 – COSC 681 will be used to facilitate topic identification and proposal development. COSC 690 will only be taught by faculty who are actively engaged in research activity.
3. Fall 2017 – COSC 690 and most graduate courses will only be taught by faculty who are actively engaged in research activity.

Metrics: By Fall 2020, 75% of student theses are published in a peer-reviewed venue.

Objective 2: Create specializations in 3-4 topic areas. These areas should be kept as close and as related as possible to the Department's Centers of Excellence, and will impact the graduate program in terms of teaching and research.

Strategy: The Department Head through the Graduate Program Coordinator, with the advice of the Graduate Instruction Committee, graduate students, and the CIAC will facilitate the creation of specialized topic areas for MSCM graduates.

1. Spring 2016 – Graduate faculty will each identify the subject matter/course content that would contribute to their research. Using these courses the graduate committee will identify topic areas best suited to the faculty direction.
2. Fall 2016 – Fall 2017 – Form core faculty groups for each topic area. Faculty groups to align appropriate coursework (new or existing courses) for each group's topic area.
3. Spring and Fall 2018 – Core groups will present course work for each topic area, including curriculum mapping. Deliverables for courses will be defined and new courses will be submitted for approval.
4. Fall 2019 – Course approvals will be secured and MSCM curriculum and elective offering will reflect topic area foci.

Metrics: Implement topic area foci with incoming class in Fall 2020.

**Construction Science Department
Texas A&M University
Strategic Plan**

Objective 3: Increase diversity in the MSCM student body, relative to itself.

Strategy: The Department Head through the Graduate Program Coordinator, with the advice of the Graduate Instruction Committee, will facilitate additional recruiting strategies.

1. Each Spring – The department will fund the use of Hobson’s GRE search, allowing faculty to identify top graduate students and offer them incentives (scholarships/fellowships) to matriculate.
2. Each Fall - Using the GRE search the graduate program will seek underrepresented students that qualify for OGAPS diversity scholarships.

Metrics: By Fall 2021, no single ethnic group will constitute more than 50% of incoming MSCM students.

Objective 4: Explore the creation of a Master of Construction Business Administration program in partnership with the Mays Business School at Texas A&M University.

Strategy: The Department Head through the Graduate Program Coordinator, with the advice of the Graduate Instruction Committee, will facilitate exploration of such a program.

1. 2016 – The Graduate Program Coordinator and the Department Head will meet with the appropriate individuals at the Mays Business School to explore the possibility.
2. 2017 – Necessary structure and requirements will be identified for creation of such a program, and a plan will be in place for its roll out. A proposal will be presented to the COSC graduate faculty for review and preliminary approval.
3. 2018 – If approved, the Graduate Program Coordinator, with the advice of the Graduate Instruction Committee and representatives from the Mays Business School, will work to put together a curriculum for the new program.
4. 2019 – The curriculum will be presented, reviewed, and discussed by the COSC graduate faculty for additional comments, input, and revisions.
5. Spring 2020 – The curriculum will be presented to the University for approval.
6. Fall 2021/Spring 2022 – Advertisement of the new program, recruitment efforts.

Metrics: By Fall 2022, create and offer a Master of Construction Business Administration degree program.

Objective 5: Improve and expand the PhD program.

Strategy: The Department Head will facilitate the administration of a productive PhD program that benefits the research faculty in the department.

1. 2016 – Existing PhD program is being reviewed by the College of Architecture to seek eliminating the “strings” that currently exist for faculty to chair PhD students and determine their course of study.
2. 2017-2021 – Explore the possibility of entering into a relationship with the College of Education to facilitate a PhD in education with a construction emphasis.

**Construction Science Department
Texas A&M University
Strategic Plan**

Metrics: By Fall 2018, the COSC faculty will be able to chair PhD students in Architecture and/or Planning and will be able to determine a direction to pursue in regards to establishing a possible relationship with the College of Education.

**Construction Science Department
Texas A&M University
Strategic Plan**

Research and Scholarly Activity

Goal 4: We will be engaged in discovery and research related to the built environment both in construction and related disciplines to enhance the economic development of the State of Texas and to extend the frontiers of knowledge.

Objective 1: Create an environment of scholarship that is synergistic in the production of quality publications in peer-reviewed venues and regular submissions of proposals for funded research, by our research faculty.

Strategy: The Department Head will facilitate the administration of a productive scholarship environment.

1. Spring 2016 – Re-institute the CIAC research grant with an emphasis on its use as seed money or matching to leverage additional funding from external sources.
2. 2016-2017 – Continue providing Grant Training Center (GTC) support to research faculty in grant writing.
3. Fall 2017 – Evaluate the outcomes of the services provided by the GTC in order to determine continuation/dis-continuation of this support.
4. 2016-2021 - Department research faculty will meet biannually to present their current work and to promote collaboration and synergy in the department. The group will discuss and plan strategies and actions to approach the department’s research challenges and activities.
5. 2016-2021 – The department will continue to award publications in the top journal(s), as well as the department’s Research Excellence Award.

Metrics: By 2020, externally funded research in the department will see an increase of 50% compared to the baseline measurement (the 2012/13 through 2014/15 academic years).

**Construction Science Department
Texas A&M University
Strategic Plan**

Service and Extension

Goal 5: We will maintain connections with communities, industry, professional associations, and accreditation groups through engagement in public service, public relations, internships, and student chapters.

Objective 1: Grow and diversify the CIAC membership and internship providers.

Strategy: CIAC members reach out to non-member companies to encourage their memberships.

1. Fall 2016 – Establish benchmarks of the diversity among the CIAC membership in regards to the type of company and business sector. Brief the CIAC membership on the need for increased facility management internships to address the expected growth in the Facility Management Minor.
2. Fall 2016 – Spring 2017 – Develop a list of potential venues and dates (conferences and meetings) for those professional and trade associations that are not represented by the current CIAC membership. Develop a multi-year plan to participate in such venues in order to promote construction science and facility management internships.
3. Fall 2017 – Extend associate membership invitations to professional and trade organizations to increase diversity, with invitation to attend the 2018 CIAC meetings.
4. Spring 2018 – Host a meeting or conference for a facility management or facility owner professional or trade association.
5. Fall 2018 – The Industry Relations Coordinator will brief the CIAC members on the diversity benchmarks established for the CIAC membership, and task the Membership Committee to identify target companies to increase diversity in memberships.

Metrics: By 2021, the CIAC will increase the diversity of CIAC members to include a 20% increase compared to the Fall 2016 benchmarks.