

Department Strategic Plan

Goals

- 1.0 Solve Louisiana's Greatest Challenges
- 2.0 Educate the Workforce of Tomorrow

Objectives

- 1.1 Develop cost-effective and environmentally friendly sources of energy; Create solutions to save our coast and waterways; Engineer better healthcare; Provide a safer and more cost-effective national infrastructure; Improve America's manufacturing competitiveness.
 - 1.1.1 Develop a formal operational structure through the development of a research network within the College to facilitate interdisciplinary, collaborative efforts in the following areas: sustainability, safety, resiliency, buildings, manufacturing facilities, roads and bridges, power plants, electrical grids, computing systems, software, cybersecurity, informatics systems, intelligent systems and visualization technology.
- 2.1 Promote an undergraduate and graduate environment that develops and encourages a diverse set of management and leadership skills.
 - 2.1.1 Enhance student's critical thinking and communication skills
- 2.2 Enhance global awareness and an international education experience among our students.
- 2.3 Emphasize concepts of safety and sustainability among graduates.
- 2.4 Impart a strong sense of appreciation of and commitment to local and global community.
- 2.5 Train our graduates for academic careers.
- 2.6 Increase the quality of LSU's annual entering freshman class.

Vision

To transform the LSU Construction Management Department into a nationally renowned School of Construction.

Mission

Bert S. Turner Department of Construction Management Mission - To prepare our graduates with the ability to lead and problem-solve, to advance construction knowledge through research and scholarly activities, and to serve the communities through outreach...all in partnership with industry.

Executive Summary for 2021

Unit Head 2021 Summary for the Bert S. Department of Construction Management - C.W. Berryman

Current State of the Department

The CM Department is making good progress towards its goals as they are either at or above plan. This cycle during the Strategic Plan update, Objectives 1.1.2 – 1.1.5 have become obsolete as the Louisiana Chemical Manufacturing Initiative (LMCI) federal designation was lost due to the lack of interest by LSU. All of these objectives have been removed as they were being assessed through the activities of the LCMI. As for the rest of the objectives, we are at or above plan for 87% of the Department's objectives. Two objectives are below plan. The first is Objective 2.1.1 Enhance student's critical thinking and communication skills as students are less involved in leadership roles and seem to refuse to complete the Distinguished Communicator program. The other is Objective 4.3 Provide faculty, staff and students with the tools needed to maintain positive energy balance among work and life. The cause for this is that there is a systems and operational survey that has yet to be developed. Each have action items identified to get these back on plan. Objectives 2.2 Enhance global awareness and an international education experience among our students and 2.4 Impart a strong sense of appreciation of and commitment to local and global community are on hold until more human resources are available to pursue these outreach programs.

This cycle we experienced tremendous growth in enrollments. Each year we have a large incoming freshman class and this year was not any different as it exceeded

last year's historical record. During the AY 2020-2021 there were 1,366 students enrolled in CM degree programs (this includes 39 PhDs that are not shown on LSU's Budget and Planning Sheet) . This is a 40% increase over last year's enrollments. During that same time frame, there were 317 students who graduated from CM programs. Our Master of Science in Construction Management (MSCM) online program continues to grow as well as the Post Baccalaureate Certificate (CCM) program. The newest Post Baccalaureate Certificate in Facilities Management is now fully functional with a planned start for March 2022.

Progress on LSU's Program Review (2018) for the BSCM and MSCM programs: They had two recommendations:

Recommendation 1: The department should incorporate in its annual strategic planning report (SPAR) a discussion of the steps it has taken to address the recommendations from its last accreditation review, until all recommendations are resolved. Any relevant follow-up reports to the accrediting agency should also be included as an attachment(s) in the SPAR.

Recommendation 2: The department should continue its efforts to enhance student assessment of learning, including a review of student outcomes and effectiveness of assessment methods.

As a result, Action items were developed and placed in the Department's Strategic Plan under Goal - 2.0 Educate the Workforce of Tomorrow. All Actions were were completed during the last cycle with exception of one BSCM Concern. Action was taken but still in progress:

Action Item 1: Address recommendations from ACCE accreditation visit for BSCM and MSCM (Status - all recommendations address except one, it is in progress)

[BSCM Concern; from ACCE report] "*Budgeted Funds to Support Program Growth. Budgeted financial resources are likely not adequate to enable the degree program to achieve its planned growth and future goals and objectives. Since the time that the Self Study was written, undergraduate enrollment increased from 592 to 671 students (as shown in the Spring 2017 14-day enrollment report). The Self Study indicates 10 FTE faculty (7 tenure/tenure track and 3 instructors). These numbers show that the student:faculty ratio has already increased from 59:1 to 67:1 since Spring 2016. If this trend worsens (i.e., student:faculty ratios continue to increase) the program will not be able to achieve the goals and objectives stated in the strategic plan.*"

- This is the last remaining ACCE recommendation that has not been alleviated. It is not due to lack of trying as enrollments have risen faster than the hiring of new faculty. LSU and the Dean's office has provided faculty hires almost every year since the BSCM visit in 2016. Even with the new hires, enrollments continue to increase and are continuing to cause higher student:faculty ratios. We were seeing a downward trend of these ratios (due to hiring); however, in the 2020-2021 cycle, it jumped from 59.3 to 70.2 students per faculty member. Hiring plans were given to the Dean's office soon after the ACCE visit and since then hiring has continued. In this assessment cycle, the CM Department has 9 tenure track faculty (with one search ongoing) and 6 instructors. Using only the undergraduate enrollment, to meet the college's averages of 33 students per faculty, the CM Department would need 20 total faculty. To offset, the Department has hired (using soft money and research grants) four adjuncts and two research non-tenure track assistant professors faculty.

Action Item 2: Enhance student assessment of learning for BSCM and MSCM (Status - completed June 2020) The CM Department houses two federally funded centers:

- The US Department of Energy, refunded our Industrial Assessment Center (IAC). As a result, the scope has been expanded. It now covers manufacturing and the commercial sectors. The IAC's mission is to provide free assessments and improvement recommendations on energy efficiency, productivity, sustainability, and competitiveness to small and medium-sized enterprises; and to educate and train engineering students with applied energy and manufacturing-related skills. The Center will leverage existing industry, governmental partners and small & medium sized manufacturers in Louisiana (in particular in remote and economically disadvantaged communities) to provide its assessment services to address the need of operational improvement.
- A large consortium of universities led by LSU was awarded a grant from the U.S. Department of Transportation to establish a regional transportation research center. The Transportation Consortium of South-Central States, or Tran-SET, focuses on improving transportation infrastructure through the use of innovative materials and technology. It supports all phases of research, technology transfer, workforce development and outreach activities of emerging technologies that can solve transportation challenges in the region. This award winning Center contract was extended from 5 years to 6 years.

In this assessment cycle the Department has over 80 active research grants and subgrants within the CM Department totaling almost \$3 million in sponsored program awards (note: there was an error in the Budget and Planning metric that shows a sharp decrease in new funded sponsored research. With research expenditures exceeding \$2.1 million, it was not possible to have only \$807,000 in sponsored program awards). In addition, faculty published 43 journals in 2021. That comes to 4.3 journals per tenure/tenure track faculty.

Key Issues/Concerns

The faculty work load has increased significantly due to increased research grant funding and increased enrollments (based on 2019-2020 LSU Budget and Planning metric):

- Research expenditures per tenure/tenure track faculty: CoE- \$160,799 vs CM - \$235,595
- Majors per total Faculty: CoE – 33.9 vs CM – 70.2 (LSU excludes 39 CM PhDs as Budget and planning has yet to add our PhDs in the counts)
- Student Credit Hours per Total Faculty: CoE – 491.6 vs CM – 1194.5 Degrees per Total
- Faculty: CoE – 6.5 vs CM – 18.5

Even with low faculty numbers, on average, the Department has the highest teaching load in the college and the highest number of annual research dollars per faculty. As anyone can attest, the CM faculty are among the hardest working group in the college...but this pace cannot be sustained without bringing in more faculty to assist with the teaching and research load. To date, the Department has been able to hire new faculty for almost every academic year...just can't hire fast enough. The Department is appreciative of the Dean's support when helping us add new faculty each year.

Initiatives for 2022

- Begin the search for new faculty for 2021 (approved; hiring in progress).
- Development of a School of Construction Management that can incorporate all academic programs and research centers (in progress) Create a departmental
- survey for systems and operational improvements (not started)
- Expand matriculation agreements with community colleges (not started) Completed

Initiatives for 2021

- ~~Begin the search for new faculty for 2020 (approved; completed; hired Dr. Carolina Resende).~~

Completed Initiatives in 2020

- ~~Begin the search for new faculty for 2019 (completed; hired Dr. Ali Kazemian).~~
- ~~Obtain approval for a PhD in Construction Management (completed; campus and online) Integrate BIM and~~
- ~~sustainable courses in the curriculum by the end of the year. (completed)~~

Completed Initiatives in 2019

- Update all alumni contact information by year's end. (completed)
- Create an online Post-Baccalaureate Certificate in Facilities Management (completed)
- Finish the development of a 4-year BSCM to MBA (completed)
- Develop dual-degree program BSCM and BS in Entrepreneurship with the Business College (completed)
- Develop LSU Online BSCM program with an October 2019 launch date. (completed)