

**College/School/Department: College of Science and Engineering**

**Academic Plan 2017-2023**

**Mid-Cycle Review 2020**

*(Approved by the President's Cabinet on May 7, 2020)*

**I. Introduction**



State your department/school/college mission statement.

The College of Science and Engineering has a triple mission:

- Preparing students for careers in science, technology, engineering, mathematics (STEM) and STEM education and imparting core knowledge in science and mathematics to all students.
- Providing an environment in which faculty can develop and sustain internationally prominent research programs.
- Serving the citizens of Texas and the nation with educational and research programs that facilitate innovation and economic development.

Outline briefly your “vision” for the 2017-2023 planning cycle.

For 2023, we envision the College of Science and Engineering will continue to play a central role in achieving Texas State's research goals. We will graduate significantly more undergraduate and graduate students in the areas of science, engineering, engineering technology and mathematics. Through teaching innovations, we will increase the success of the students enrolled in our general education classes and we will prepare more high school mathematics and science teachers than we do in 2017. Ingram Hall and the Infrastructure Research Laboratory at STAR Park will be completed as well as the RF Mitte Building Renovation. Finally, we will continue to be inspired by and support the shared values of Texas State University.

Using University goals and initiatives as a guide, list and briefly describe your top five priorities for the 2017-2023 planning cycle and indicate the university goal/initiative to which the unit's goal is linked.

Because of the diversity of programs across the College of Science and Engineering, we have given great emphasis to planning at the departmental, school and center levels. Individual plans will remain important blueprints for the college over the next five years.

**Research:** 1. New faculty lines at all levels (tenure- and nontenure-line, as well as Faculty of Practice) to conduct and facilitate expansion of research efforts while simultaneously addressing diversity and growing instruction demands; 2. Provide new, and improve existing, research laboratory space and equipment; 3. Begin to balance teaching and research workloads to be compatible with institutions having NRUF status. ~~(1.3, 3.1, 3.3, 4.1, 4.2)~~ (1.1, 1.3, 1.6, 3.1, 3.3, 4.1, 4.2)

**Graduate Programs:** ~~1. Complete and successfully launch the PhD program in Computer Science~~<sup>[HCE1]</sup>; ~~12.~~ Increase the number of DIA and GIA positions available for student recruitment and retention, provide competitive stipends and tuition offset; ~~23.~~ Review and redesign graduate programs in Materials Science Engineering and Commercialization (PhD), ~~Applied Mathematics (MS)~~<sup>[HCE2]</sup>, ~~Software Engineering (MS)~~ and Computer Science (MS); ~~34.~~ Enhance and position for future PhD proposals the programs in Mathematics, Chemistry and Biochemistry, ~~Electrical Engineering~~<sup>[HCE3]</sup>, and Physics, ~~and multidisciplinary Discipline Based Education Research~~<sup>[HCE4]</sup>; ~~45.~~ Begin development of high value, discipline-specific Master's degrees within the School of Engineering and the Department of Engineering Technology<sup>[HCE5]</sup>. (1.3, 2.1, 3.1, 3.2)

**Undergraduate Programs:** 1. Submit, and have approved by THECB, a Final Authority program proposal for Civil Engineering<sup>[HCE6]</sup> Mechanical Engineering, and launch the program with an intent for ABET accreditation at the earliest possible opportunity; 2. Obtain ABET accreditation for the Engineering Technology program; ~~3. Begin integration of Engineering and Engineering Technology operations and programs to enhance synergies in undergraduate programs, shared laboratories, and faculty expertise~~<sup>[HCE7]</sup>; ~~34.~~ Explore the development of ABET-accredited programs in Electrical Engineering Technology, Civil Engineering Technology, and Mechanical Engineering Technology ~~and Mechanical Engineering~~; ~~45.~~

Computer Science and Electrical Engineering jointly explore the merger of the concentrations in Computer Engineering into an ABET/EAC computer engineering degree. (2.1, 3.1, 4.3)

**Student Success:** ~~1. Recruit and retain a diverse student population; 2.~~ Increase undergraduate research opportunities; ~~3.~~ Increase honors course offerings; ~~4.~~ Enhance impact of Collaborative Learning Center; ~~5.~~ Fund current and growing Learning Assistant and Supplemental Instruction positions; ~~6.~~ ~~Hire enrollment management and student success consultants to help propose solutions for over-extended undergraduate programs; Examine reconfiguring the CoSE advising office for better student success;~~ ~~7.~~ Continue implementation of the Cooperative Education program; ~~7.~~ ~~Enhance relationships with programs in the College of Education that support improved teacher preparation, innovative pedagogies, and discipline-based education research.~~ ~~8.~~ Expand support for summer camps and bridge programs to attract and retain students. (1.1, 1.2, 1.3, 1.5, 1.8, 2.3, 3.1, 3.3)

**Support of Faculty and Staff:** 1. Increase tenure-line faculty, and non-tenure-line faculty, and staff salaries to be competitive with universities having NRUF-ERU status in the State of Texas; 2. Provide additional pre- and post-award grant administrative support and technical and administrative personnel; 3. Address space needs for growth of research enterprise, instruction needs, and basic facilities needs including revisiting the possibility of an addition to Ingram Hall and at least one new building. (2.4, 3.1, 3.4, 4.1, 4.2)

Based on unit goals, list the number of new (not replacement) faculty lines you plan to request in the 2017-2018 academic year and in the remaining 2-6 years.

~~\*The plans for the PhD in Computer Science and the BS in Civil Engineering will include new faculty lines which are NOT included in the table.~~

Biology

Year One (2017-2018)

3 Senior Lecturers

Years Two – Six (2018-2023)

2 Senior Lecturers

**Chemistry and Biochemistry**

Year One (2017-2018)

Chemistry: 1 Senior Lecturer

Years Two – Six (2018-2023)

Chemistry: 4 Tenure-Track Faculty, 4 Senior Lecturers

Biochemistry: 3 Tenure-Track Faculty, 3 Senior Lecturers

**Computer Science\***

Year One (2017-2018)

1 Tenure-Track Faculty, 1 Senior Lecturer

Years Two – Six (2018-2023)

3 Tenure-Track Faculty, 2 Senior Lecturers

**Engineering Technology**

Years Two – Six (2018-2023)

ET: 3 Tenure-Track Faculty, 3 Senior Lecturers

CIM and CSM: 1 Tenure-Track Faculty, 1 Associate Professor of Practice

**Mathematics**

Year One (2017-2018)

Math and Math Ed: 1 Tenure-Track Faculty

Years Two – Six (2018-2023)

Math and Math Ed: 7 Tenure-Track Faculty, 2 Senior Lecturers

**Physics**

Year One (2017-2018)

1 Tenure-Track Faculty, 1 Senior Lecturer

Years Two – Six (2018-2023)

4 Tenure-Track Faculty, 2 Senior Lecturers, 1 Teacher in Residence or Faculty of Practice

**School of Engineering\***

Year One (2017-2018)

EE: 1 Tenure-Track Faculty, 2 Senior Lecturers or Faculty of Practice

Manuf E: 1 Tenure-Track Faculty, 1 Senior Lecturers or Faculty of Practice

IE: 1 Tenure-Track Faculty, 1 Senior Lecturers or Faculty of Practice

Gen Engr: 3 Senior Lecturers or Faculty of Practice

Years Two – Six (2018-2023)

EE: 6 Tenure-Track Faculty, 3 Senior Lecturers or Faculty of Practice

Manuf E: 3 Tenure-Track Faculty, 1 Senior Lecturers or Faculty of Practice

IE: 3 Tenure-Track Faculty, 1 Senior Lecturers or Faculty of Practice

Gen Engr: 3 Senior Lecturers or Faculty of Practice

**Materials Science, Engineering and Commercialization**

Year One (2017-2018)

1 Tenure-Track Faculty from either Biology, Chemistry/Biochemistry, Engineering Tech, Engineering or Physics

Years Two – Six (2018-2023)

3 Tenure-Track Faculty from either Biology, Chemistry/Biochemistry, Engineering Tech, Engineering or Physics

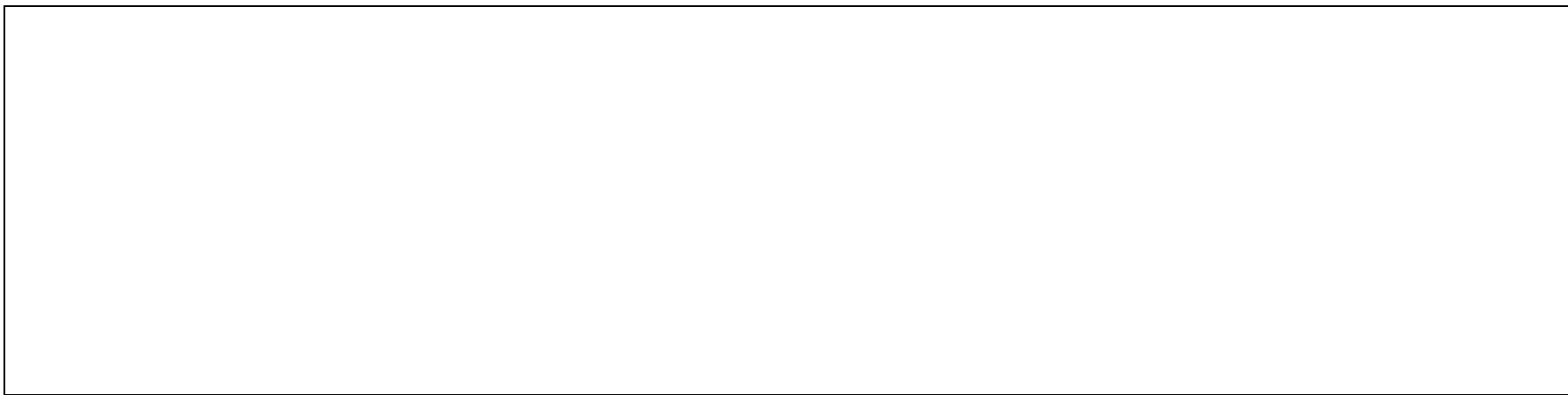
**COSE TOTALS**

Year One (2017-2018)

7 Tenure-Track Positions, 13 Non-Tenure Track Positions

Years Two – Six (2018-2023)

43 Tenure-Track Positions, 28 Non-Tenure Track Positions



Based on unit initiatives outlined in your plan, estimate the total amount of new funding that your unit will realistically need in the 2017-2018 academic year and in the remaining 2-6 years.

Years (2-6) funding requests are identified separately from the year 1 funding request and assume the year 1 funding request is in place and ongoing.

**COSE**

2017-2018 (1 year)

Administrative Assistant II for the COSE advising office, \$33,000

Research Coordinator for post-grant assistance, \$53,000

**Biology**

2017-2018 (1 year)

\$130,000 for 5 DIA positions

\$750,000 for salary increase for 150 graduate students (\$5,000 each compensating cost of registering for nine SCH each long semester)

\$70,000 for salary increase of 20 lecturers, and 5 tenured faculty

\$150,000 for salaries of 3 senior lecturers

\$50,000 for salary of one staff IT position

2018-2023 (2-6 years)

\$520,000 for 20 DIA positions

Competitive start-up funds for 5 faculty replacing retired ones

\$470,000 for salary adjustments

\$100,000 for 2 lecturer positions

**Chemistry and Biochemistry**

2017-2018 (1 year)

\$10,000 for M&O

\$13,500 for GIA

\$100,000 for UIA salaries

\$50,000 for faculty release time

\$50,000 for senior lecturer position

2018-2023 (2-6 years)

\$45,000 for M&O

\$350,000 for 7 senior lecturers

7 tenure-track faculty at or above the CUPA median for the discipline and competitive start up packages

\$67,500 for GIA salaries

\$300,000 for renovation

**Computer Science**

2017-2018 (1 year)

Funding for the PhD in Computer Science based on the proposal

1 tenure-track faculty at or above CUPA median and competitive start up package

1 senior lecturer position at or above the CUPA median

2018-2023 (2-6 years)

Ten (10) GIA positions (10X\$14,000/year X 5 years = \$700,000) (ongoing)

Three (3) tenure-track faculty salaries at or above CUPA median and competitive start up packages  
 Equity adjustment for competitive faculty salaries (\$250,000/year X 5 years = \$1,250,000) (ongoing)  
 2 senior lecturer positions at or above the CUPA median

### **Engineering Technology**

#### 2017-2018 (1 year)

4 GIA Lines (\$12,152 each)  
 M&O \$90,000

#### 2018-2023 (2-6 years)

4 tenure-track faculty salaries at or above CUPA median for the discipline and competitive start up packages  
 Microcomputer IT Lab Technician , \$50,000, beginning fall 2021  
 Civil-Concrete Lab Technician, \$50,000, beginning fall 2021  
 Mechanical-Manufacturing Lab Technician, \$50,000 beginning fall 2021  
 On-line Instructional Design Specialist, \$50,000 beginning fall 2021  
 8 GIA Lines (\$12,152 each)

M&O \$100,000

### **Mathematics**

#### 2017-2018 (1 year)

1 tenure-track faculty salary at or above the CUPA median for the discipline and competitive start up package  
 Administrative Assistant II position, \$35,000

#### 2018-2023 (2-6 years)

5 Tenure-track faculty and 2 Associate/Full Professor faculty at or above the CUPA median for the discipline and competitive startup packages

Microcomputer Lab Assistant, \$42,000

Computer Lab Upgrade: \$61,000 based on an estimated 40 computers for one additional classroom computer lab at \$1,500 per computer, plus \$1000 for a lab printer



Software: \$8,000 for all computers

**Physics**

2017-2018 (1 year)

New Tenure-Line: (1) Salary \$80,000+FB, Startup \$575,000 (includes approved tenure-line faculty and projected startup)

New Nontenure-Line: (1) Salary \$62,500+FB

Continuing Nontenure-Line Salary Increase: (6) Salary \$131,700+FB [this is increase over current salaries]

GIA Support: (15 new and continuing) \$331,965

Learning Assistant Support: \$39,000

Instructional Laboratory Infrastructure: \$40,000

M&O Increase: \$10,500

2018-2023 (2-6 years)

New Tenure-Line: (4) Salary \$394,000+FB, Startup \$2,405,000

New Nontenure-Line: (2) Salary \$211,150+FB

New Teacher in Residence: (1) Salary (\$77,250/y+FB) \$386,250+FB cumulative total

Budget Specialist: (1) Salary (\$75,000/y+FB) \$375,000+FB cumulative total

Instructional Laboratory Director: (1) Salary (\$75,000/y+FB) \$375,000+FB cumulative total

Continuing Nontenure-Line Increase: (6) Salary \$720,190 [this is increase over current salaries]

GIA Support: (25 new and continuing): \$774,000

Learning Assistant Support: \$491,000

Instructional Laboratory Infrastructure: \$240,000

M&O Increase: \$58,200

**School of Engineering**

2017-2018 (1 year)

3 tenure-track faculty salaries at or above the CUPA median for the discipline and competitive start up packages

3 senior lecturer or assistant professor of practice salaries

2018-20203 (2-6 years)

9 tenure-track faculty salaries at or above the CUPA median for the discipline and competitive start up packages

4 senior lecturer or assistant professor of practice salaries

2 administrative staff positions

2 technical staff positions

Civil Engineering Program: per program proposal

Computer Engineering Program: per program proposal

Mechanical Engineering Program: per program proposal

Equipment funding:

Ingram Hall: \$15M to fully populate specialized research facilities and general-access Maker Space

Civil Engineering program: Per program proposal

Computer Engineering program: Per program proposal and Ingram Hall equipment funding

Mechanical Engineering program: Per program proposal and Ingram Hall equipment funding

**Materials Science, Engineering and Commercialization**2017-2018 (1 year)

2 DIAs \$68,000

M&O \$10,000

1 faculty line at or above the CUPA median, appropriate for the discipline and experience, and competitive startup package

2018-2023 (2 – 6 years)

2 Additional DIAs added each year (\$34,000\*2 for each year)

Renovation for graduate student offices: \$100,000

Three faculty lines at or above the CUPA median, appropriate for the discipline and experience, and competitive startup packages

State the facilities (e.g. offices, research and lab space, classrooms) that will be required for anticipated growth and new unit goals.

**Biology**

6 new offices (and/or renovations) in Supple  
3 transformations of research lab space into teaching labs

**Chemistry and Biochemistry**

Each new tenure-track faculty line will require ~1,000 square feet for research space and ~120 square feet for office space: total 7,840 square feet between 2017 – 2023.

Each new Senior Lecturer line will require office space (~120 square feet): total 720 square feet between 2017 – 2023.

Designated shared instrument facilities will require an additional 4,000 square feet.

To accommodate increased enrollment, we need a first call classroom with a capacity of 175 – 200 students.

**Computer Science**

Seven (7) new faculty offices are needed to accommodate the new faculty.

One large classroom with capacity of 300 seats is needed to accommodate the growing enrollment of CS courses and shortage of faculty positions.

**Engineering Technology**

Renovations in the RF Mitte building to accommodate growing programs in Engineering Technology, Construction Science and Management and Concrete Industry Management. Some of the requested space can be shared with the Civil Engineering program, other space is very specialized to the majors within Engineering Technology.

- Updated robotics and automation lab
- Updated senior design lab

- Updated construction systems laboratory
- Updated mechanical, electrical and plumbing lab
- Soils lab
- Two 24-30 seat computer labs
- Electronics lab
- Office space for new hires

**Mathematics**

15 faculty offices, 1 staff office, 5-10 graduate student offices (depending on size/number of students per office)

1 large (approximately 150 seat) classroom

5 standard (40-50 seat) classrooms

Increased lab space to house the expanding computer lab and Math CATS tutoring program needs

A conference room for scheduling committee meetings, research working group sessions, etc.

An additional classroom computer lab will be needed to accommodate an increasing demand by faculty who desire to use innovative teaching techniques that require technologically advanced classrooms. This classroom computer lab could either be one of the net new classrooms or could be a renovation of one of our existing classrooms.

**Physics**

Faculty offices: Eight.

Staff offices: Two

Research Laboratories: Four.

Classrooms: Commensurate with majors and service course growth. Two first-call classrooms are already dedicated to Physics in Ingram Hall. Growth in non-calculus-based physics and astronomy are not accounted for in those rooms.

Instruction Laboratories: One for introductory courses and one for majors courses.

Student offices and bullpens: Graduate 15 additional students, undergraduate study space.

Space costs, such as new construction and renovation, are not included in the above estimates.

### **School of Engineering**

Office space:

Office space planned in Ingram Hall should be sufficient for the current planning period

Until Ingram Hall is completed and occupied, additional temporary office space will be required to support new hires

Research/Lab space:

Research/Lab space planned in Ingram Hall should be sufficient for the current planning period until Ingram Hall is completed and occupied, Engineering faculty will continue to share research/lab space in RFM as has been the practice for several previous years

Classrooms:

Classroom space planned in Ingram Hall should be sufficient for the current planning period, assuming that a viable approach for enrollment management is implemented immediately.

### **Materials Science, Engineering and Commercialization**

Space for 10 new PhD students – 1,350 square feet as office space

Office and individual faculty space should be rolled into individual department requests

## **II. Process**



Describe, in a brief paragraph, the process used to develop your plan, including the nature and extent of faculty involvement.

Each department/school/program prepared its own strategic plan. The unit plans were presented and discussed at several College Council meetings. The College plan was derived from the unit plans. Faculty were given opportunities to offer input through two Faculty Forums and through their departments; subsequently, the plan was finalized with the College Council.

**College/School/Department: College of Science and  
Engineering  
Academic Plan 2017-2023**

**III. Program Maintenance**

Maintenance Need	Reason for Need	Cost	Result of Funding
Biology- New doctoral instructional assistant lines (DIA) (25; 5 each of the next 5 years	Needed to accommodate needs of increasing numbers of research active junior faculty establishing their laboratories while applying for research funds covering salaries for RAs	\$650,000	enhanced quality of research and higher output and recognition
Biology- Increase instructional assistantship salaries by the cost of registering for nine SCH each long semester	Current compensation is not adequate to attract top students	\$750,000	higher quality graduate students resulting in higher graduation rate, better quality research, and increased extramural funding
Biology- Increase faculty salaries to mean of life scientists at other Texas ERUs	Needed to attract and retain scientists capable of building nationally recognized research and teaching programs	\$540,000	required to attract strong researchers
Biology- Start-up funds for an estimated five tenured faculty replacements	Needed to attract and retain scientists capable of building nationally recognized research and teaching programs	\$1,500,000	required to attract strong researchers
Biology- Five additional senior lecturers and one additional staff position	Needed to address growth of both enrollment and extramurally funded research	\$1,700,000	increased enrollment in departmental courses, including service courses, and increased extramural funding

CS- Four (4) new tenure-track faculty lines Three (3) new senior lecturer positions Large classroom (with capacity of 300 seats)	The total CS enrollment in the fall semesters has grown from 614 (in Fall 2011 when the last strategic plan was drafted) to 1189 (in Fall 2016), a 94% increase in the last five years. In addition, the enrollment growth in other programs such as Engineering has added more students to the CS courses. The request is also based on the comparison of the current CS faculty FTE to SCH ratio (30 / 17740) to the overall university faculty FTE to SCH ratio (1936 / 957139)	\$90,000+fringe per tenure-track line and \$60,000+fringe per lecturer line per year.	Successful staffing of additional sections of CS courses
CS- Ten (10) new graduate assistantships	We have an increasing number of lab sections in the introductory CS courses and need to staff the additional lab sections	\$14,000+fringe per graduate instructional assistant per year	Successful staffing of additional lab sections of CS introductory courses
CS- Faculty salary adjustments to the mean of CS faculty at other Texas ERUs	We need to maintain reasonable salaries to retain and attract strong faculty members	\$250,000 per year	Retention and recruitment of strong faculty members
CS- One Budget Assistant	We need a new budget assistant to help with budget issues due to growth in research activities and student enrollment. Currently we have a temp- funded half time Budget Assistant	\$50,000+fringe per year	Support of faculty research
CBC-Additional M&O funding	Increase in enrollment and the number of faculty lines	\$10,000 first year; \$3,000 each year after that; TOTAL of \$210,000	Increased student graduation and retention rates, increased scholarly/creative activity
CBC-Supplemental Instruction (SI) Program	SI Salaries	\$85,000 per year	Continuation of a successful program for increasing student graduation and retention rates
CBC-Increase Graduate Instructional Assistant Lines	Enrollment growth and increased scholarly/creative activity	\$13,500 per year per person	Increased number of laboratory sections due to enrollment growth; increased scholarly/creative activity
CBC-Student Recruiting (undergraduate and graduate)	Increased student quality and diversity	\$10,000 per year	Potentially greater diversity by regional outreach and a larger, more qualified body
CBC-Senior Lecturers	Increased enrollment	\$50,000 per year per person	Increased number of lower division chemistry courses to serve other disciplines on campus and increasing number of chemistry and biochemistry majors and minors



CBC-Stockroom Staff	Increased enrollment	\$50,000 per year	Increased enrollment requiring the offer of night laboratory sections
EngTech- Four (4) new GIA lines.	Recent rapid enrollment growth in both the CSM and ET programs. We are requesting these 4 lines for the 2017-2018 AY	\$12,152 annually per line (\$48,608 total – beginning fall 2017.)	To assist faculty by teaching laboratory sections of many departmental courses.
EngTech- Six (6) new tenure-track lines; Three (3) in Civil ET, Two (2) in Electrical ET, and one (1) in Mechanical ET	Three new ET programs will be introduced in 2021 and the new faculty lines will support the new programs.	\$74,000 + fringe annually per line. Totaling \$444,000 + fringe annually beginning fall 2021. Plus \$150,000 per line in one-time start-up costs, \$900,000 total	Acquire three new Civil ET faculty members to support the proposed new program in that field. Acquire two new Electrical ET faculty members to support the proposed new program in that field. Acquire one new Mechanical ET faculty member to augment current faculty having those credentials, and to support the proposed new program in that field. Strengthen faculty credentials in all ET programs and provide teaching and research support for the new curricula for those programs.
EngTech- Three (3) new Lecturers; one (1) in Civil ET, one (1) in Electrical ET, and one (1) in Mechanical ET.	Three new ET programs will be introduced in 2021 and the new lecturer lines will support the new programs beginning in fall 2022.	\$55,000 + fringe annually per line. Totaling \$165,000 + fringe annually beginning fall 2022.	To meet anticipated enrollment growth in all ET programs.
EngTech- One (1) new civil-concrete lab technician	To provide needed technician support for these programs. Also, to provide assistance with senior design labs in these programs	\$50,000 + fringe annually beginning fall 2021.	To meet anticipated enrollment growth in all ET programs
EngTech- One (1) new mechanical- manufacturing lab technician	To provide needed technician support for this program. Also, to provide assistance with senior design labs in this program.	\$50,000 + fringe annually beginning fall 2021.	To meet anticipated enrollment growth in all ET programs.
EngTech- One (1) new microcomputer IT lab technician	To provide needed IT, computer, and software support for all departmental programs	\$50,000 + fringe annually beginning fall 2021.	To meet anticipated enrollment growth in all ET programs.

EngTech- One (1) new on-line instructional design specialist	To provide needed support for new on-line/hybrid course offerings in the proposed new master's in construction management and the revised and renamed master's in engineering management.	\$50,000 + fringe annually beginning fall 2021	To meet anticipated enrollment growth in ET master's degree programs.
EngTech- One (1) new tenured/TT program director faculty line, preferably at the rank of professor, to serve as graduate advisor and program director for both master's degree programs.	A new master's in construction management will be introduced in fall 2022, coincident with revisions to the curriculum and renaming of the existing master's degree. These new graduate-level programs, which will have significant on-line/hybrid course offerings, will require a program director/graduate advisor to teach courses, advise students, and provide necessary administrative support.	\$101,219 + fringe annually beginning fall 2022. Plus \$150,000 in one-time start-up costs	To manage departmental master's degree programs, advise graduate students, teach graduate-level courses, and conduct research.
EngTech- Two (2) new tenure-track lines in CSM or CIM	To better balance the proportion of tenure-track to non-tenure-line faculty in the CSM and CIM programs, to support anticipated enrollment growth in these programs, and to support new graduate-level course offerings.	\$74,000 + fringe annually per line. Totaling \$148,000 + fringe annually beginning fall 2022. Plus \$150,000 per line in one-time start-up costs, \$300,000 total.	To meet anticipated enrollment growth in the CSM and CIM programs.
EngTech- One (1) new Associate Professor of Practice line in CSM or CIM.	To better balance the proportion of tenure-track to non-tenure-line faculty in the CSM and CIM programs, to support anticipated enrollment growth in these programs, and to teach upper-division undergraduate courses in these programs	\$78,444 + fringe annually beginning fall 2022.	To meet anticipated enrollment growth in the CSM and CIM programs.
EngTech- Eight (8) new GIA lines.	Recent rapid enrollment growth in both the CSM and ET programs, and probable growth in the CIM program, as well. We are requesting these 8 lines over the 2021-2023 time period	\$12,152 annually per line (\$97,216 total once all 8 lines have been added.)	To assist faculty by teaching laboratory sections of many departmental courses.

EngTech-\$95,000 increment to annual M & O allocation	To compensate for recent and continuing growth in enrollment across department programs, and in anticipation of enlarging the faculty as a result of new curriculum proposals at both the undergraduate and master's level.	\$95,000 per year beginning in 2023, or \$90,000 immediately, followed by an additional \$50,000 in 2023.	Improved operational budget support for rapidly growing programs whose across-the-board enrollment growth has been 10% per year over the 2012-2017 time period. During that same time period, the ET major grew by 15% per year. If ABET accreditation of ET has an effect on enrollment similar to that of ACCE accreditation of CSM, the enrollment targets projected for the 2017-2023 planning period are very likely to be realized. Additional increments of M & O support will be needed in 2020 and 2023.
EngTech-\$95,000 increment to annual M & O Allocation	To compensate for recent and continuing growth in enrollment across department programs, and in anticipation of enlarging the faculty as a result of new curriculum proposals at both the undergraduate and master's level.	\$95,000 per year beginning in 2023, or \$90,000 immediately, followed by an additional \$50,000 in 2023	Improved operational budget support for rapidly growing programs whose across-the-board enrollment growth has been 10% per year over the 2012-2017 time period. During that same time period, the ET major grew by 15% per year. If ABET accreditation of ET has an effect on enrollment similar to that of ACCE accreditation of CSM, the enrollment targets projected for the 2017-2023 planning period are very likely to be realized. Additional increments of M & O support will be needed in 2020 and 2023.
Engineering- Electrical Engineering: Tenure-Track: Four (4) new positions Non-Tenure-Track: Two (2) new positions	Anticipated enrollment: 375 students (w/o Computer Engineering) Student-to-Faculty Ratio: Exceeding 60:1 (w/o additional faculty)	Tenure-Track: Salary: \$85k - \$95k each Startup: \$150k each Non-Tenure-Track: Salary: \$65k - \$75k each	Student-to-faculty ratio appropriate for lab-heavy Engineering activities. Additional conversion of per-course faculty to full-time may be required in future to support continued enrollment growth.
Engineering- Computer Engineering: Tenure-Track: Six (6) new positions Non-Tenure-Track: Three (3) new positions	Anticipated enrollment: 375 students (w/o Electrical Engineering) Student-to-Faculty Ratio: Exceeding 100:1 (w/o additional faculty)	Tenure-Track: Salary: \$85k - \$95k each Startup: \$150k each Non-Tenure-Track: Salary: \$65k - \$75k each	Student-to-faculty ratio appropriate for lab-heavy Engineering activities. Additional conversion of per-course faculty to full-time may be required in future to support continued enrollment growth

Engineering- Industrial Engineering: Tenure-Track: Two (2) new positions Non-Tenure-Track: Two (2) new positions	Anticipated enrollment: 350 students Student-to-Faculty Ratio: Exceeding 60:1 (w/o additional faculty)	Tenure-Track: Salary: \$70k - \$80k each Startup: \$75k each Non-Tenure-Track: Salary: \$50k - \$60k each	Student-to-faculty ratio appropriate for lab-heavy Engineering activities. Additional conversion of per-course faculty to full-time may be required in future to support continued enrollment growth
Engineering- Manufacturing Engineering: Tenure-Track: Two (2) new positions Non-Tenure-Track: Two (2) new positions	Anticipated enrollment: 300 students Student-to-Faculty Ratio: Exceeding 50:1 (w/o additional faculty)	Tenure-Track: Salary: \$70k - \$80k each Startup: \$350k each Non-Tenure-Track: Salary: \$50k - \$60k	Student-to-faculty ratio appropriate for lab-heavy Engineering activities. Additional conversion of per-course faculty to full-time may be required in future to support continued enrollment growth
Engineering- General Engineering: Tenure-Track: n/a Non-Tenure-Track: Three (3) new positions	To maintain accreditation, Engineering curricula contain significant "internal service course" requirements which need dedicated faculty to manage.	Tenure-Track: n/a Non-Tenure-Track: Salary: \$50k - \$60k each	Student-to-faculty ratio appropriate to support Engineering "internal service courses". Additional conversion of per-course faculty to full-time may be required in future to support continued enrollment growth.
Engineering- Administrative Staff: Two (2) new positions Technical Staff: Three (3) new positions	Anticipated total enrollment at end of planning period (including MS Engineering) is over 1100 students. This is too much load for our current two (2) administrative staff and five (5) technical staff.	Administrative Staff: \$30k - \$40k each Technical Staff: \$50k - \$60k each	Appropriate administrative and technical support for lab-heavy Engineering activities. Additional staffing may be required in future to support continued enrollment growth.
Engineering- Ten (10) additional GIA positions to support growth in undergraduate enrollment	The MS Engineering program contains funding for approximately 20 total GIA positions. These positions represent one-third of the MS population to be supported by university funding, with the remaining two-thirds of the MS population to be supported by research funding.	GIA Position: \$18k each	Appropriate in-class and in-lab support for Engineering undergraduate activities. GIA positions support undergraduate activities (lab, classroom). These positions should represent one-third of the MS population to be supported by university funding, with the remaining two-thirds of the MS population to be supported by research funding.
MSEC- Ten additional Doctoral teaching assistantships	Increase MSEC PhD program	\$67,898 year 1, \$135,795 year 2, \$203,693 year 3, \$271,590 year 4, \$339,488 year 5	Increased PhD student production along with increased research expenditures as they enhance research efforts.

MSEC- Renovation for graduate student offices	Planned number of PhD students	\$100,000 year 2	Ability to accommodate current and near term PhD student population
MSEC- M&O for recruiting	Need to increase recruiting efforts	\$10,000 each year	Ensure highest quality pool of applicants to ensure program success and research growth
MSEC- Additional faculty replacement funds to teach new courses	Accommodate additional need for courses due to anticipated size of the PhD program	\$15,000 each year	Ensure high quality education for PhD students
Math- Hire 1 new tenure track faculty member in Mathematics / Statistics immediately	Enrollment growth in STEM majors has increased the number of upper level sections we. Due to market and student demand, we are increasing our undergraduate and graduate statics offerings. Addresses APR report recommendation	\$70,000	Be able to cover all of our courses for Fall 2018 and maintain credibility as a research institution
Math- Hire 5 new tenure-track faculty	Projected enrollment growth, particularly in STEM majors, and implementation of new programs and revision of existing masters program to align with market demand. Addresses APR report recommendation	\$366,989	Improved educational experiences for undergraduate and graduate students, improved quality of instruction, and greatly enhanced performance on departmental research initiatives
Math- Hire 2 senior faculty members in Mathematics	Address the needs of establishing a doctoral program in mathematics, promote research, and conduct department leadership activities in research. Supported by the APR report	\$223,300	Establish a doctoral program in mathematics
Math- Hire 1 new Microcomputer Lab Assistant	The Department has nearly 80 faculty members and 50 graduate students in addition to 3 classroom computer labs and one student computer lab and an additional proposed classroom computer lab. Faculty and graduate students use a wide variety of discipline specific software. An additional staff person is needed to support technological needs for research and teaching. Identified as a critical need in the APR report	\$42,000	Department will be able to maintain its current equipment and provide support for technology intensive research faculty as well as support innovations in teaching.

Math- Convert a current temporarily funded part-time staff position to a full-time position	The Department has nearly 80 faculty members. We have temporary funding for a part-time staff person who assists with scheduling, undergraduate student support, and general clerical needs for the Department. We are sorely understaffed relative to other departments on campus and are struggling to maintain an acceptable level of service. Keeping this position is essential and expanding it to full time would allow the staff member to take over clerical functions currently being managed by faculty. Identified as a critical need in the APR report	\$35,000	Better functioned department for undergraduate, graduate students, and faculty members. Fewer scheduling errors, increased general customer service, and a more appropriately functioning office. More effective use of faculty time, freeing faculty from clerical work (eg: collecting data for outcomes assessment), allowing faculty to focus on research and instructional improvement (eg: allow faculty to focus on analyzing outcomes assessments and formulating and implementing improvement plans instead of on data collection and input).
Physics- Four new tenure-line faculty (one current search for F17). Three new senior lecturer positions. One Teacher in Residence. Office space needed for all faculty, research space needed for tenure line faculty.	Department of Physics majors and service courses continue to grow. This will be impacted in 2017-2023 by overall university growth and the planned addition of new engineering programs. Expanded research and commensurate growth graduate student population	\$80k/tenure line + fringe + startup. \$65k/nontenure line +fringe. \$75k/TIR = fringe. Each is a continuing position.	Successful staffing of courses and achieving expanded research impact.
Physics- Faculty startup.	Startup costs are needed to produce new research facilities for individual faculty and any shared instrumentation required by them	Startup estimates ranging from \$575k to \$628k.	New research opportunities for students at all levels. New funded research programs.
Physics-17 new permanently funded GIA positions. Increase in GIA stipends and tuition waivers. GIA office area (bullpen) needed.	Increasing enrollment in introductory courses requires additional laboratory sections and the need for additional qualified instructors. Increased research in department and enhanced integration with MSEC requires greater numbers of GIAs. Competitive stipends needed to attract and retain students.	\$20k/GIA nine-month stipend plus tuition waivers. Needed to address current seven GIA positions plus new	Provide GIAs to cover goal of 60% introductory laboratory sections. Provide graduate students for strengthening our research programs. Provide stipends that will allow us to attract and retain high quality graduate students.
Physics- Institutional funding for growing number of Learning Assistants (LAs) rising from 68 semester-students in FY18 to 98 semester-students in FY23.	Learning Assistants cornerstone of calculus-based-physics sequence and increasing enrollment must be addressed by funding of and increasing number.	\$1,250/semester cost of Learning Assistants.	Provide well-trained LAs for calculus-based-physics sequence to maintain low DFW rates.

<p>Physics- Instructional Laboratory infrastructure.</p> <p>One new laboratory room needed.</p>	<p>To properly educate all students who take courses in the Department of Physics, including our majors, improvements and modernization of our instructional laboratory equipment is an ongoing need.</p>	<p>\$280k estimated over full Strategic Plan period.</p>	<p>Provide up-to-date education in experimental physics.</p>
<p>Physics- Budget Specialist. Instructional Laboratory Director. Office space needed.</p>	<p>Properly manage research funding in Department of Physics. This position may be shared with another department. Oversee the development and modernization of instructional laboratories.</p>	<p>\$75k + fringe. \$75K + fringe</p>	<p>Provide adequate support for grant activities. Grant types include research and education. Provide adequate support of instructional laboratory modernization and upkeep, laboratory instructional materials, and support in-class experiments.</p>
<p>Physics- Increase faculty salaries.</p>	<p>Nontenure line faculty salaries are not competitive. Tenure line faculty salaries need to raise above selected CUPA median.</p>	<p>\$15k/nontenure line faculty + fringe. \$10k/tenure line faculty + fringe.</p>	<p>Provide salaries commensurate with experience and exceeding those of beginning high school physics teachers by an average of 25%. Provide salaries competitive with institutions we wish to pass.</p>

**College/School/Department: College of Science and Engineering**  
**Academic Plan 2017-2023**

**IV. Planning Goals (University Goal Statements)**

Dept.	Unit Goal	1 yr	2-6 years	New Resources Required	Cost	Source of Resources	Assessment Criteria	University Initiative
<b>University Goal 1: Promote the success of all students.</b>								
Biology	Continue to advocate for increasing the salaries of instructional assistants	x	x	Yes	\$600,000	donor-based stipends, research funds, additional university allocation	yearly assessment of donor contributions and research funds	1.1; 1.4; 4.4; 4.12
Biology	Continue to recruit diverse and excellent graduate students	x	x	No (but see above)	See above	See above	monitor quality of entering students, and their progress annually	1.2; 1.3; 1.4; 1.5; 3.1
Biology	Continue to develop and support courses and initiatives in professional development, including teaching and presentation skills, grant proposal writing, scientific outreach and ethical academic conduct	x	x	No	\$0	n/a	monitor development of adequate courses annually	1.9; 1.12; 2.5; 4.3
CS	Cope with enrollment growth	x	x	4 TT faculty, 3 senior lecturers	\$3,240,000+fringe	State / University	Faculty assessment	1.2
CBC	Increase number of faculty, including those that support the MSEC Program	x	x	7 New tenure-track/tenured faculty members with start-up	\$75,000 per line + fringe, \$350,000 start-up per line	State / University	Increased scholarly/creative activity and extramural funding	1.2
CBC	Increase lecture and teaching laboratory space	x	x	Space		State / University	Ability to serve expanding enrollment of the university	1.2, 1.3, 1.11
CBC	Increase stipend for graduate assistantships	x	x	Additional funding	\$4,000 per student	State / University	Increased number of graduate students and increased scholarly/creative activity and extramural funding	1.4
CBC	Institutionalize support for supplemental instruction	x	x	Continued funding	\$85,000 per year	State / University	Improved retention and graduation rates	1.3, 1.5
CBC	Support efforts to enhance STEM Education and STEM Education		x				Improved retention and graduation rates and increased collaboration	1.4, 1.5



	Research						across the COSE	
CBC	Establish additional scholarships for students		x				External Gifts	Improved retention and graduation rates 1.4
CBC	Establish internship opportunities for students		x				Industry Agreements	Enhanced demand for graduates 1.6
CBC	Investigate the potential of a new building		x				State / University	Increased ability to serve the teaching and research vision of the university 1.11
Ingram School of Engineering	Support continued growth of existing Engineering programs	x	x		Additional full-time, tenure-track faculty positions, facilities, and funding	See Notes: 2, 3, 4 One-time: \$2M Annual: \$2M	Annual position and facilities enhancement processes	See Notes: 1 1.1-1.3
Ingram School of Engineering	Finalize high-profile activities that are already in-flight	x	x		Complete renovation of Mitte; construction of Ingram Hall; Launch BS program in Civil Engineering Mechanical Engineering	See Notes: 2, 3, 4 One-time: \$815M Annual: \$0.25M	See Notes: 2, 3, 4 Existing program and building commitments	See Notes: 1 1.1, 1.5-1.8, 1.10
Ingram School of Engineering	Introduce new, high-value undergraduate degree programs		x		BS in Computer Engineering; BS in Mechanical Engineering	See Notes: 2, 3, 4 One-time: \$1M + \$3M Annual: \$2M + \$4M	See Notes: 2, 3, 4 New program commitments	See Notes: 1 1.1-1.3
Ingram School of Engineering	Introduce new, high-value graduate degrees and improve current graduate degree program		x		Discipline-specific MS programs; PhD in Electrical Engineering	See Notes: 2, 3, 4 One-time: \$0.25M Annual: \$0.5M (per program)	See Notes: 2, 3, 4 New program commitments	See Notes: 1 1.1-1.3, 1.6
Ingram School of Engineering	Improve integration of Engineering programs with multidisciplinary partnerships	x	x		None	n/a	n/a	See Notes: 1 1.1-1.3
MSEC	Modify MSEC admissions criteria and curriculum	x	x		None	\$0	n/a	Increased number of applications, higher aggregate GPAs, GRE scores, and TOEFL scores of applicants 1.2, 1.3, 1.4, 3.1
MSEC	Increase enrollment of highly qualified, diverse students	x	x		10 new doctoral assistantships added over 5 years	\$1,017,464	State / University	Higher aggregate GPAs, GRE scores, and TOEFL scores of admitted students, increased percentage of underrepresented students 1.2, 1.4, 3.1

MSEC	Increase the number of faculty who teach MSEC courses and mentor MSEC research students	x	x	4 new faculty lines with sufficient start-up	\$80,000 per line + fringe, \$250,000 start-up per line	State / University	Increase in scholarship and research expenditures	1.2, 1.3, 3.1, 3.3, 3.5, 4.3
MSEC	Expand coursework		x	Additional faculty replacement funds to teach new courses	\$15,000 each year 2-5	State / University	Increased number of students with biochemistry, biology, and engineering backgrounds, increased retention rates	1.2, 1.3, 1.6, 1.7, 3.1, 3.5
MSEC	Establish proven practices for engagement with industry	x	x	Must be coupled with Commercialization Initiatives from AVPR /OCIR office	\$0	n/a	Placement of PhD students	1.1, 1.5, 1.6, 1.7, 1.8, <del>1.12, 1.13</del> , 2.1, <del>2.62-7</del> , 3.1
MATH	Promote the outstanding placement of recent doctoral graduates to recruit additional high quality doctoral students	x		Improved web site and other marketing tools	\$2,000	Department and Graduate College recruitment funds	Increase in number of high quality applicants to the doctoral program ( <a href="#">Benefits appearing in applicant pools</a> )	<del>1.9</del> , 1.2, 1.3, 3.1
MATH	Find sources for tuition stipends and/or scholarships for doctoral students	x	x	\$2,775 per tuition stipend	\$83,250 to cover 30 doctoral students	Unknown	Increase in quality of doctoral students recruited and increase in retention of high quality recruits	1.4, 1.3, 3.1
MATH	Raise graduate student salaries to attract the strongest students ( <a href="#">Some progress, see Section I for data</a> )	x	x	\$5,000 per student	\$250,000 to raise stipends for 50 masters and doctoral students	Unknown	Increase in quality of graduate students recruited and increase in retention of high quality recruits	1.4, 1.3, 3.1
MATH	Increase grant supported research opportunities for graduate students		x			Faculty writing additional grants containing DRA support	Number of collaborative grants, and dollars raised	1.4,3.1
MATH	Expansion of a Math <a href="#">CATS classroom lab</a> ( <a href="#">Done, space doubled</a> ) <a href="#">Lab classroom lab</a>		x	Space and furnish it	\$30,000 (furnish)		Faculty use of innovative teaching techniques that require technologically advanced classrooms. ( <a href="#">More classes are using computer labs and software, innovative techniques being piloted.</a> )	2. <del>56</del>
MATH	Increase collaboration with public schools to support math education research and integration with Center for Excellence		x	Funding for students working in public schools	\$100,000	Mathworks Endowment, University, grants and foundation support	Number of students involved, number of school districts involved, number of faculty collaborations	1.8, 1.1 <del>23</del> , 3.5

MATH	Expand the availability of co-curricular activities to improve the quality of the undergraduate experience for students taking mathematics courses at all levels		x	Math Club, Math Awareness Month, Pi Day, awards, Facebook page	\$5,000	Departmental funds	Increased student activity within Department, improved	1.7,2.1,2.2
MATH	Provide research opportunities for a diverse group of students <a href="#">(Done, including more RA lines, an undergraduate research course, and an REU grant.)</a>		x	Support for students and faculty mentors	\$88,000 (\$8,000x2 +\$6,000) x4	Grants, Department matching, Centers for Excellence	Faculty working on research with students, graduate students receiving research support in the summers	1.4,3.3
MATH	Increase recruiting activities aimed at attracting diverse graduate and undergraduate students <a href="#">(Progress made, see Section I, but more to be done.)</a>		x	Travel, advertising, faculty time to give recruiting talks, Open House	\$12,000 = \$400x10 + \$3000 + \$5000	Departmental and Graduate College recruitment funds	Increased diversity in our graduate students and majors	1.2,1.3
ENG TECH	Seek and maintain national accreditation for the existing general ET program.		x	\$6,000 for initial site visit plus \$3,000 per year thereafter	Faculty time plus application and maintenance fees	Requested increase in Department M & O allocation	Achieve ABET accreditation for ET program based on general ET program criteria	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
ENG TECH	Seek and maintain national accreditation for the new program in Civil ET; Add a new undergraduate major in Civil Engineering Technology. <a href="#">(on hold – no action at this time)</a>		x	3 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	Achieve ABET accreditation for ET program based on Civil ET program criteria	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
ENG TECH	Seek and maintain national accreditation for the new program in Electrical ET; Add a new undergraduate major in Electrical Engineering Technology. <a href="#">(on hold – no action at this time)</a>		x	2 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	Achieve ABET accreditation for ET program based on Electrical ET program criteria	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
ENG TECH	Seek and maintain national accreditation for the new program in Mechanical ET; Add a new undergraduate major in Mechanical		x	1 new TT line	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	Achieve ABET accreditation for ET program based on Mechanical ET program criteria	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8

	Engineering Technology. <u>(on hold – no action at this time)</u>							
ENG TECH	Add a new undergraduate major in Civil Engineering Technology. <u>(on hold – no action at this time)</u>		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	Achieve ABET accreditation for ET program based on Civil ET program criteria	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
ENG TECH	Add a new undergraduate major in Electrical Engineering Technology <u>(on hold – no action at this time)</u>		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	Achieve ABET accreditation for ET program based on Electrical ET program criteria	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
ENG TECH	Add a new undergraduate major in Mechanical Engineering Technology <u>(on hold – no action at this time)</u>		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	Achieve ABET accreditation for ET program based on Mechanical ET program criteria	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
ENG TECH	Maintain national accreditation for the CSM program <u>(completed, reaccredited Spring 2018 for six years)</u>	x		\$3,000 per year	Faculty time plus maintenance fees	Requested increase in Department M & O allocation	Maintain ACCE accreditation for CSM program	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
ENG TECH	Maintain national accreditation for the CIM program <u>(Pursuing accreditation through ATMAE)</u>	x		\$3,000 per year	Faculty time plus maintenance fees	Requested increase in Department M & O allocation	Maintain NSC accreditation for CIM program	1.1, 1.2, 1.3, 1.5, 1.6, 1.7, 1.8
PHYS	Accommodate enrollment growth	1	2	NTL Faculty	\$62.5k/person/year + 3%/year + FB	State / University	Faculty Assessment	1.3
PHYS	Accommodate enrollment growth	0	1	Teacher in Res.	\$70k/person/year + 3%/year + FB	State / University	“	1.3
PHYS	Accommodate enrollment growth	1	5	Instruct. Lab. Infrastructure	\$280k	State / University	Student Assessment	1.1, 1.3
EARDC	Fund students for curation work	x	x	None	\$0	n/a	Students understand and can implement curation processes	1.8, 3.1, 3.3
COSE	Accommodate enrollment growth	x	x	Administrative Assistant II for advising office	\$33,000	State/University	Advisor Assessment	1.5
<b>University Goal 2: Offer high quality academic and educational programming.</b>								
Biology	Maintain our reputation for practice-oriented, hands-on learning by continuing to support laboratory and field courses	x	x	No	\$0	n/a	annual evaluation of enrollments	1.7; 2.2; 2.4; 3.3

Biology	Continue to support a diverse portfolio of specialized, graduate-level courses in areas of faculty expertise	x	x	No	\$0	n/a	annual assessment of numbers of and enrollment in specialized courses (undergraduate and graduate level)	1.1; 1.6; 1.7; 1.8; 1.12; 2.2; 2.4; 3.3
CBC	Increase lecture and teaching laboratory space	x	x	Space		State / University	Enhanced ability to serve the increasing enrollments	2.6
CBC	Increase faculty office and research space	x	x	Space		State / University	Improved ability to serve both the teaching and research mission of the university	2.6
CBC	Expand the breadth of course offerings in the graduate program		x	Instructor salary for release time	\$5,000 per year	State / University	Graduates that are better prepared for career path and improved foundation for the proposed doctoral program	2.2
CBC	Expand course offerings in the Honors Program at the undergraduate level		x	Instructor salary for release time	\$5,000 per year	State / University	Enhanced ability to serve the top students at the university	2.2, 2.3
CBC	Investigate the feasibility of a doctoral program in the department	x	x				Increased scholarly/creative activity and extramural funding	2.1
CBC	Investigate the potential of a new building		x			State / University	Increased ability to serve the teaching and research vision of the university	2.6
Ingram School of Engineering	Support continued growth of existing Engineering programs	x	x	Additional full-time, tenure-track faculty positions, facilities, and funding	See Notes: 2, 3, 4 One-time: \$2M Annual: \$2M	See Notes: 2, 3, 4 Annual position and facilities enhancement processes	See Notes: 1	2.6
Ingram School of Engineering	Finalize high-profile activities that are already in-flight	x	x	Complete construction of Ingram Hall; renovation of Mitte; Launch BS program in Mechanical Civil Engineering	See Notes: 2, 3, 4 One-time: \$15M Annual: \$0.25M	See Notes: 2, 3, 4 Existing program and building commitments	See Notes: 1	2.1, 2.4, 2.6
Ingram School of Engineering	Introduce new, high-value undergraduate degree programs		x	BS in Computer Engineering; BS in Mechanical Engineering	See Notes: 2, 3, 4 One-time: \$1M + \$3M Annual: \$2M + \$4M	See Notes: 2, 3, 4 New program commitments	See Notes: 1	2.1
Ingram School of Engineering	Introduce new, high-value graduate degrees and improve current graduate degree program		x	Discipline-specific MS programs; PhD in Electrical Engineering	See Notes: 2, 3, 4 One-time: \$0.25M Annual: \$0.5M	See Notes: 2, 3, 4 New program commitments	See Notes: 1	2.1

					(per program)			
Ingram School of Engineering	Improve integration of Engineering programs with multidisciplinary partnerships	x	x	None	n/a	n/a	See Notes: 1	2.1, 2.2
MSEC	Establish proven practices for engagement with industry	x	x	Must be coupled with Commercialization Initiatives from AVPR /OCIR office	\$0	n/a	Placement of PhD students	1.1, 1.5, 1.6, 1.7, 1.8, <del>1.12+13</del> , 2.1, <del>2.6-7</del> , 3.1
MATH	Explore alternate methods of instruction, including distance learning, online courses, and hybrid courses		x	Support for student assistants and Special computer equipment and software	\$40,000 = \$10,000x4	Departmental funds, University and Grant activity	New courses developed	2.2,2.4
MATH	Implement a TalkMath2Me miniconference	x		Advertising and travel funding for participants	\$15,000	Grants, Department, Graduate College recruitment funds	Enhanced prestige and visibility of the Department and recruitment of graduate students through advertising our programs to participants	2.2, 2.67
MATH	Develop additional Honors Courses that satisfy the 020 Common Core requirement		x	Faculty time	\$0		Enhanced student opportunities for our service courses	2.3,2.2
MATH	Develop additional interdisciplinary Honors courses, such as biostatistics behind cancer detection (Done)		x	Faculty time	\$0		Enhanced student opportunities outstanding students	2.3
ENG TECH	Add a new undergraduate major in Civil Engineering Technology. (on hold)		x	3 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	2.1, 2.2
ENG TECH	Add a new undergraduate major in Electrical Engineering Technology. (on hold)		x	2 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	2.1, 2.2
ENG TECH	Add a new undergraduate major in Mechanical Engineering Technology. (on hold)		x	1 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	2.1, 2.2
ENG TECH	Add a new undergraduate major in Civil Engineering Technology. (on hold)		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	With approval of curriculum proposal to add Mechanical,	2.1, 2.2

							Electrical, and Civil ET	
ENG TECH	Add a new undergraduate major in Electrical Engineering Technology. (on hold)		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	2.1, 2.2
ENG TECH	Add a new undergraduate major in Mechanical Engineering Technology. (on hold)		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	2.1, 2.2
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and renaming the degree a Master of Science in Engineering Management.		x	1 new Professor/ Program Director/ Graduate Advisor line	\$101,219 salary + fringe annually	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management	2.1, 2.2
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and renaming the degree a Master of Science in Engineering Management.		x	2 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management	2.1, 2.2
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and renaming the degree a Master of Science in		x	1 new Assoc. Prof of Practice line	\$78,444 salary + fringe annually	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management	2.1, 2.2

	Engineering Management.							
ENG TECH	Add the necessary graduate instructional assistants to support existing programs.	x		4 new GIA lines	\$12,152 salary annually per line (\$48,608 total)	State/ University	Immediately in fall 2017 to support demonstrated enrollment growth in department programs.	2.2, 2.4
ENG TECH	Add the necessary graduate instructional assistants to support new programs.	x		8 new GIA lines	\$12,152 salary annually per line (\$48,608 total)	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET.	2.2, 2.4
ENG TECH	Request a substantial increase in our M & O budget allocation to compensate for enrollment growth that has occurred over the past five-year period and for anticipated growth in the coming planning period.		x	\$50,000 increase in M & O allocation in response to enrollment growth over the 2017-2023 planning period	\$50,000 annually beginning in 2023	State/ University	If overall department enrollment reaches 1,600 majors by fall 2023, or with approval of curriculum proposal to add Mechanical, Electrical, and Civil ET.	2.1, 2.2, 2.4
ENG TECH	Request a substantial increase in our M & O budget allocation to compensate for enrollment growth that has occurred over the past five-year period and for anticipated growth in the coming planning period.		x	\$50,000 increase in M & O allocation in response to enrollment growth over the 2017-2023 planning period	\$50,000 annually beginning in 2023	State/ University	If overall department enrollment reaches 1,600 majors by fall 2023, or with approval of curriculum proposal to add Mechanical, Electrical, and Civil ET.	2.1, 2.2, 2.4
CS	Accommodate more lab sections		X	10 GIAs	\$700,000+fringe	State / University	Student assessment	2.4
CS	Implement PhD program		X	19 DIAs	\$2,850,000+fringe	State / University	Student assessment	2.1
CS	Implement PhD program		X	2 TT faculty, 2 senior lecturers	\$1,500,000+fringe	State / University	Student assessment	2.1
PHYS	Accommodate instructional laboratory growth	x		Instructional Laboratory Director	\$75k/year + 3% + FB	State / University	Faculty Assessment	2.4, 2.6
PHYS	Accommodate instructional laboratory growth	X	x	18 GIAs	\$631k + FB total	State / University	Student Assessment	2.1, 2.2
PHYS	Accommodate enrollment growth	X	x	Learning Asst. (ramp to 98)	\$530k total	State / University	“	2.1, 2.2
PHYS	Accommodate enrollment growth	x	x	M&O growth	\$69k total	State / University		2.4, 2.6
EARDC	Expand scholarship opportunities for local children to attend EARDC summer camps	x	x	Support from Advancement	\$50	Grants, endowments	Increased number of San Marcos children attending camps	2.1, 3.1



University Goal 3: Achieve significant progress in research and creative activity as measured by national standards.								
Biology	Continue to encourage faculty to develop multi-investigator research and training grants and support such activities by granting teaching release and travel support to visit with federal program officers	x	x	no	\$5,000	Dept. IDC	monitor development of adequate applications annually	3.1; 3.3; 3.5
Biology	Continue to increase department resources through faculty efforts to acquire external grant funding, contracts and donations	x	x	No	\$0	n/a	annual evaluation of numbers of grant applications and grants	1.4; 2.67; 3.1; 3.3; 4.4; 4.12
CS	Create endowed chair		x		\$2,000,000	Endowment	Faculty assessment, outside evaluation	3.1
CBC	Increase the number of faculty, including those that support the MSEC Program	x	x	7 New tenure-track/tenured faculty members with start-up	\$75,000 per line + fringe, \$350,000 start-up per line	State / University	Increased scholarly/creative activity and extramural funding	3.1
CBC	Increase faculty office and research space	x	x	Space		State / University	Increased scholarly/creative activity and extramural funding	3.1
CBC	Increase space for shared instrumentation	x	x	Space		State / University	Increased scholarly/creative activity and extramural funding	3.1, 3.4
CBC	Increase the number of staff for instrument and administrative support for both teaching and research	x	x	1 staff line	\$50,000 per year + fringe	State / University	Increased scholarly/creative activity and extramural funding	3.1, 3.4
CBC	Increase stipend for graduate assistants	x	x	Additional funding	See line in University Goal 1	State / University	Increased enrollment in the graduate program	3.1
CBC	Develop additional collaborative research projects		x				Increased scholarly/creative activity and extramural funding	3.1, 3.3, 3.5
CBC	Establish internships for student development and the potential for collaborative research		x				Better prepared students and increased scholarly/creative activity and extramural funding	3.3
CBC	Investigate the feasibility of a doctoral program in the department		x			State / University	Increased scholarly/creative activity and extramural funding	3.1, 3.2
CBC	Investigate the potential of		x			State / University	Increased ability to serve	3.1

	a new building						the teaching and research vision of the university	
Ingram School of Engineering	Support continued growth of existing Engineering programs	x	x	Additional full-time, tenure-track faculty positions, facilities, and funding	See Notes: 2, 3, 4 One-time: \$2M Annual: \$2M	See Notes: 2, 3, 4 Annual position and facilities enhancement processes	See Notes: 1	3.1, 3.3
Ingram School of Engineering	Finalize high-profile activities that are already in-flight	x	x	Complete <del>construction of Ingram Hall</del> renovation of Mitte; Launch BS program in <u>Mechanical</u> <u>Civil</u> Engineering	See Notes: 2, 3, 4 One-time: \$15M Annual: \$0.25M	See Notes: 2, 3, 4 Existing program and building commitments	See Notes: 1	3.1, 3.3, 3.5
Ingram School of Engineering	Introduce new, high-value undergraduate degree programs		x	BS in Computer Engineering; BS in Mechanical Engineering	See Notes: 2, 3, 4 One-time: \$1M + \$3M Annual: \$2M + \$4M	See Notes: 2, 3, 4 New program commitments	See Notes: 1	3.1, 3.2
Ingram School of Engineering	Introduce new, high-value graduate degrees and improve current graduate degree program		x	Discipline-specific MS programs; PhD in Electrical Engineering	See Notes: 2, 3, 4 One-time: \$0.25M Annual: \$0.5M (per program)	See Notes: 2, 3, 4 New program commitments	See Notes: 1	3.1-3.3
Ingram School of Engineering	Improve integration of Engineering programs with multidisciplinary partnerships	x	x	none	n/a	n/a	See Notes: 1	3.1, 3.2
MSEC	Establish proven practices for engagement with industry	x	x	Must be coupled with Commercialization Initiatives from AVPR /OCIR office	\$0	n/a	Placement of PhD students	1.1, 1.5, 1.6, 1.7, 1.8, <del>1.12-13</del> , 2.1, <del>2.6-7</del> , 3.1
MSEC	Modify MSEC admissions criteria and curriculum	x	x	none	\$0	n/a	Increased number of applications, higher aggregate GPAs, GRE scores, and TOEFL scores of applicants	1.2, 1.3, 1.4, 3.1
MSEC	Increase enrollment of highly qualified, diverse students	x	x	10 new doctoral assistantships added over 5 years	\$1,017,464	State / University	Higher aggregate GPAs, GRE scores, and TOEFL scores of admitted students, increased percentage of underrepresented students	1.2, 1.4, 3.1
MSEC	Increase the number of faculty who teach MSEC courses and mentor MSEC research students	x	x	4 new faculty lines with sufficient start-up	\$80,000 per line + fringe, \$250,000 start-up per line	State / University	Increase in scholarship and research expenditures	1.2, 1.3, 3.1, 3.3, 3.5, 4.3
MSEC	Increase the number of		x	Additional faculty	\$15,000 each year 2-5	State / University	Increased number of	1.2, 1.3, 1.6, 1.7, 3.1,

	faculty who teach MSEC courses and mentor MSEC research students			replacement funds to teach new courses			students with biochemistry, biology, and engineering backgrounds, increased retention rates	3.5
MATH	Update the proposal for a Ph.D. in Mathematics in accordance with the current needs of the State and Nation and market demand	x			\$0		Approval at various levels for new doctoral program	3.2
MATH	Strategically use replacement and net new hires in support of existing and proposed doctoral program <a href="#">(Done. See Section 1 for data)</a>	x	x	6 new tenure-track lines 2 Senior level hires	\$436,989 \$223,300	State / University	Increased research output, increase in faculty serving as dissertation advisors resulting in additional doctoral graduates, increase in grant applications	
MATH	Increase research productivity and the dissemination of research in Mathematics and Mathematics Education in support of the Emerging Research Status of the University <a href="#">(Done)</a>		x	Additional support for research related travel, reduced teaching load for highly productive faculty	\$30,000 additional travel funds, alter teaching assignments to allow additional qualified doctoral students to serve as instructor of record	University, Department, Utilize existing Centers for Excellence and other Departmental programs to provide research opportunities and partial funding, grants	Increased number of publications, research presentations, and other forms of research activity <a href="#">(Done. See Section I for data)</a>	3.1,3.3
MATH	Increase grant submissions in mathematics and mathematics education <a href="#">(Done)</a>	x	x	Staff support and matching funding and in-kind contributions	Matching funds as needed	Department, College, and University grant support staff and indirect cost accounts	Increase in number of grants received and number of grant active faculty <a href="#">(Number of grant active faculty increased, number of proposals more than tripled)</a>	3.4
MATH	Enhance our doctoral program through an increased focus on the recruitment of a highly talented and diverse group of students <a href="#">(Progress being made)</a>		x	Stipends for new doctoral students	\$0 (covered under Goal 1)		Quality and diversity of student body <a href="#">(Anecdotal evidence exists that the most recent two recruiting classes are highly talented. Data will become clear as those groups move through the programs.)</a>	1.4, 3.1
MATH	Increase number of graduate students and graduation rates in existing programs		x	1-2 new DTA position per year	\$27,000 x 6= \$162,000	State / University	Increase number of doctoral graduates	3.1,1.4, 1.2,1.3

MATH	Host research conferences in mathematics and mathematics education, and enhance the existing seminar series by attracting more external speakers to improve dissemination of research and collaborations with faculty from other universities		x	Travel funds, meeting space, honoraria, etc.	\$200,000 = \$50,000x4	Departmental funds and external grants	Increased number of conferences, external speakers, and collaborative publications ( <a href="#">Multiple conferences hosted. Colloquium series revised and new seminars added, bringing in additional external speakers with collaborations resulting.</a> )	3.3
MATH	Increase collaborations with other departments		x	Faculty recognition for collaborative work	\$0	Departmental awards and recognition at special events	Increased collaborative research output and interdisciplinary grant proposals ( <a href="#">Participation in University level interdisciplinary opportunities has increased, departmental faculty are involved in two of the Big 5 Ideas projects.</a> )	3.5
MATH	Strengthen and sustain existing Center for Excellence – Texas Mathworks – and Departmental programs to provide continued leadership to the local community, state, and nation		x		\$0	Mathworks Legacy Campaign, grants, donations, and departmental support	See Center’s of Excellence strategic plans, which include specific goals and timelines to achieve these. This includes other items in this plan, linked to research, teacher training, and undergraduate programs.	3.4, 4.4
MATH	Improve opportunities for graduate students to work on projects that are research oriented ( <a href="#">Significant progress made, see number of grant funded RA lines</a> )		x	Additional RA positions	\$120,000	Grants, Mathworks endowment, Centers, University	Increased number of publications and presentations by students, student placement upon graduation ( <a href="#">See Section I for data.</a> )	3.2,3.3,3.4,3.5
MATH	Expand REU programs and other opportunities for faculty and student research collaborations		x	Funding for faculty mentors and students, matching funds	\$336,000 = (\$8,000x3 + \$5,000x12) x4	Grants, Mathworks, HLSAMP, Department, Honors College research funding	Increased number of publications that have a student as a coauthor, additional grants, student presentations at conferences	3.3,3.4
MATH	Build community spirit among diverse faculty,		x		\$0		Participation in group activities such as Problem	3.5, 3.11

	staff, and students <u>(ongoing)</u>						Solvers, collaborative research, team grant proposals <u>(Program and team grant participation increasing)</u>	
MATH	Improve the reward and recognition structures within the Department <u>(Several improvements made)</u>		x		\$0		Number of faculty involved in the awards and merit process <u>(Committee and outreach resulted in significant increase in faculty participation in the nomination process)</u>	3.5
MATH	Integrate Centers for Excellence into the research culture of the Department <u>(Done)</u>		x	Support core faculty involved in the initiative, create a Coordinator of Research position in Mathworks, and add technology support staff	\$80,000	Support from Centers for Excellence and Department	Increased output of research directly related to the missions of the Centers	3.1,3.5,3.3,1.8,2.67
MATH	Develop a program to attract postdoctoral researchers and visiting professors, including an international exchange program, to enhance Departmental research opportunities		x	2 funded positions per year	\$376,000 = \$47,000\$ x2x4	University, grants, home institutions of visitors	Number of visiting faculty <u>(This number has increased although a formal program is not yet in place. See Section I.)</u>	2.67,3.1
ENG TECH	Add the necessary teaching & research labs, to support new programs.		x	Faculty Research Labs, a Robotics & Automation teaching lab, a Senior Design lab, a Construction Systems lab, a Soils teaching lab, a MEP's teaching lab, 2 Computer labs (24-30 seat), a 50-seat 1 <sup>st</sup> -call classroom	Unknown amount of infrastructure dollars associated with the coming renovation of the R. F. Mitte building	State / University	With completion of the anticipated renovation of the R. F. Mitte building	3.2, 3.3, 3.5
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction		x	1 new Professor/ Program Director/ Graduate Advisor line	\$101,219 salary + fringe annually	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management.	3.2, 3.3, 3.5

	management specialization, and renaming the degree a Master of Science in Engineering Management.							
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and renaming the degree a Master of Science in Engineering Management.		x	2 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management.	3.2, 3.3, 3.5
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and renaming the degree a Master of Science in Engineering Management.		x	1 new Assoc. Prof of Practice line	\$78,444 salary + fringe annually	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management.	3.2, 3.3, 3.5
ENG TECH	Add the necessary technicians (1 on-line instruction design specialist), to support new programs.		x	\$50,000 + fringe annually beginning in 2021	\$50,000 + fringe annually beginning in 2021	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management.	3.2, 3.3, 3.5
ENG TECH	Add the necessary technicians (1 Civil ET-concrete, 1 Mech ET-mfg., & 1 IT Microcomputer), to support new programs.		x	\$150,000 + fringe annually beginning in 2021	\$150,000 + fringe annually beginning in 2021	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	3.2, 3.3, 3.5
PHYS	Accommodate research growth	x	x	5 TL Faculty	\$80k/person/year + 3% + FB	State / University	Faculty Assessment	3.1, 3.3, 3.4
PHYS	Accommodate research growth	x	x	5 TL faculty startup	\$2.981M	State / University	"	3.1, 3.3, 3.4

PHYS	Accommodate research growth		x	Budget Specialist	\$75k/year +3% + FB	State / University	“	3.4
PHYS	Graduate program competitiveness	x	x	17 GIA salary increases	\$187k total	State / University	“	3.1
COSE	Improve post-research funding processes	x	x	1 Research Coordinator	\$53,000	State/University	Increase in faculty satisfaction and productivity	3.1
EARDC	Obtain funds to create and maintain an official iDigBio curated collection for invertebrates	x	x	Grant writing support	\$0	grants	iDigBio model is in place	3.1, 3.5
<b>University Goal 4: Provide the necessary services, resources, and infrastructure to support the university’s strategic direction.</b>								
Biology	<u>Continue to support and provide staff and resources for service related responsibilities</u> <u>Increase activities to enhance alumni relationships and marketing</u>	x	x	no	\$0	n/a	<u>annual assessment of resources allocated vs activities</u> <u>annual publication of newsletter</u>	<u>3.4; 4.5</u> <u>4.4; 4.12</u>
Biology	Continue to renovate and upgrade existing offices, laboratories and other infrastructure	x	x	yes	\$1,500,000	university start-up funds for laboratories and other infrastructure	individual assessment of faculty requests and approved start-ups	1.11; 1.12; 2.4; 2.6; 4.15
Biology	<u>Continue to match increases in faculty and staff numbers with increases in lecture and teaching laboratory space</u> <u>Increase the number of postdoctoral scholars in the department.</u>	x	x	yes	\$50,000 per year	<u>annual facilities/provost allocation</u> <u>provost allocation</u>	<u>match space requests with student enrollment</u> <u>Competitive applications for proof-of-concept projects</u>	<u>1.12; 2.2; 2.4; 2.6; 3.3; 4.1</u> <u>54.2</u>
CBC	Increase the number of faculty, including those that support the MSEC Program	x	x	7 New tenure-track/tenured faculty members with start-up	\$75,000 per line + fringe, \$350,000 start-up per line	State / University	Increased scholarly/creative activity and extramural funding	1.2
CBC	Establish an external advisory board to provide insights for future programs	x	x	\$500,000	Donors	External Gifts	Increased scholarly/creative activity and extramural funding	4.4
CBC	Establish an external advisory board to provide insights for future programs		x				Improved interactions with local industry	4.12

CBC	Investigate the potential of a new building		x			State / University	Increased ability to serve the teaching and research vision of the university	4.15
Ingram School of Engineering	Support continued growth of existing Engineering programs	x	x	Additional full-time, tenure-track faculty positions, facilities, and funding	See Notes: 2, 3, 4 One-time: \$2M Annual: \$2M	See Notes: 2, 3, 4 Annual position and facilities enhancement processes	See Notes:1	4.1, 4.2
Ingram School of Engineering	Finalize high-profile activities that are already in-flight	x	x	Complete construction of Ingram Hall; Launch BS program in Civil Engineering	See Notes: 2, 3, 4 One-time: \$15M Annual: \$0.25M	See Notes: 2, 3, 4 Existing program and building commitments	See Notes: 1	4.4, 4.12
Ingram School of Engineering	Introduce new, high-value undergraduate degree programs		x	BS in Computer Engineering; BS in Mechanical Engineering	See Notes: 2, 3, 4 One-time: \$1M + \$3M Annual: \$2M + \$4M	See Notes: 2, 3, 4 New program commitments	See Notes: 1	4.12
Ingram School of Engineering	Introduce new, high-value graduate degrees and improve current graduate degree program		x	Discipline-specific MS programs; PhD in Electrical Engineering	See Notes: 2, 3, 4 One-time: \$0.25M Annual: \$0.5M (per program)	See Notes: 2, 3, 4 New program commitments	See Notes: 1	4.12
Ingram School of Engineering	Improve integration of Engineering programs with multidisciplinary partnerships	x	x	none	n/a	n/a	See Notes: 1	4.9
MSEC	Increase the number of faculty who teach MSEC courses and mentor MSEC research students	x	x	4 new faculty lines with sufficient start-up	\$80,000 per line + fringe, \$250,000 start-up per line	State / University	Increase in scholarship and research expenditures	1.2, 1.3, 3.1, 3.3, 3.5, 4.3
<u>MSEC</u>	<u>Increase enrollment of highly qualified, diverse students</u>		<u>X</u>	<u>Space for 10 new PhD students</u>	<u>\$791 year 2</u> <u>\$15,000 year 3</u>	<u>University</u>	<u>Support the growing requirements of the university</u>	<u>1.10, 4.13</u>
MATH	Raise lecturer salaries to be commensurate with CUPA median levels to attract and retain highly talented faculty		x		\$201,689.23	State / University	Attract and retain highly talented faculty	4.1, 4.2
MATH	Provide a culture that supports and encourages faculty mentoring through existing programs such as HLSAMP		x		\$0			4.2, 4.911
MATH	Raise a \$6 million endowment to complete		x	Travel, advertisement	\$20,000 = \$5,000 x4	Departmental funds and external sources	Fund size	4.4



	the Mathworks Legacy Campaign							
MATH	Increase travel funding available and create written travel policy to ensure adequate and equitable distribution of travel funds <u>(done)</u>	x		Increased travel funds, Committee work and Departmental discussion and approval	Funds included in a listing above	Grants, Departmental funds	Additional travel to disseminate research, improved satisfaction with travel process	4.810
MATH	Update and revise as needed existing Departmental policies <u>(All policies reviewed and updated Fall 2019)</u>	x		Committee time and Departmental discussions	\$0		Increased transparency and satisfaction with internal policies	4.810
ENG TECH	Request a substantial increase in our M & O budget allocation to compensate for enrollment growth that has occurred over the past five-year period (i.e., a request rolled over from the 2012-2017 plan).	x		\$90,000 increase in M & O allocation annually in	\$90,000 annually beginning in fall 2017	State / University	Demonstrated growth between 2012 and 2017	4.3, 4.7
ENG TECH	Request a substantial increase in our M & O budget allocation to compensate for enrollment growth that has occurred over the past five-year period and for anticipated growth in the coming planning period.		x	\$50,000 increase in M & O allocation in response to enrollment growth over the 2017-2023 planning period	\$50,000 annually beginning in 2020	State / University	If overall department enrollment reaches 1,200 majors by fall 2020, or with approval of curriculum proposal to add Mechanical, Electrical, and Civil ET.	4.3, 4.7
ENG TECH	Request a substantial increase in our M & O budget allocation to compensate for enrollment growth that has occurred over the past five-year period and for anticipated growth in the coming planning period.		x	\$50,000 increase in M & O allocation in response to enrollment growth over the 2017-2023 planning period	\$50,000 annually beginning in 2023	State / University	If overall department enrollment reaches 1,600 majors by fall 2023, or with approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	4.3, 4.7
ENG TECH	Add the necessary teaching & research labs, to support new programs.		x	Faculty Research Labs, a Robotics & Automation teaching lab, a Senior Design lab, a Construction Systems lab, a Soils	Unknown amount of infrastructure dollars associated with the coming renovation of the R. F. Mitte building	State / University	With completion of the anticipated renovation of the R. F. Mitte building	4.2, 4.3, 4.5

				teaching lab, a MEP's teaching lab, 2 Computer labs (24-30 seat), a 50-seat 1 <sup>st</sup> -call classroom				
ENG TECH	Add a new undergraduate major in Civil Engineering Technology. <i>(on hold)</i>		x	3 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	4.1, 4.2
ENG TECH	Add a new undergraduate major in Electrical Engineering Technology. <i>(on hold)</i>		x	2 new TT lines	\$74,000 salary + fringe annually & \$150,000 start-up per TT line	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	4.1, 4.2
ENG TECH	Add a new undergraduate major in Mechanical Engineering Technology. <i>(on hold)</i>		x	1 new TT lines	\$55,000 salary + fringe annually	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	4.1, 4.2
ENG TECH	Add a new undergraduate major in Civil Engineering Technology <i>(on hold)</i>		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	With approval of curriculum	4.1, 4.2
ENG TECH	Add a new undergraduate major in Mechanical Engineering Technology. <i>(on hold)</i>		x	1 new Senior Lecturer line	\$55,000 salary + fringe annually	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	4.1, 4.2
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and renaming the degree a Master of Science in Engineering Management.		x	1 new Professor/ Program Director/ Graduate Advisor line	\$101,219 salary + fringe annually	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management.	4.1, 4.2
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and		x	1 new Assoc. Prof of Practice line	\$78,444 salary + fringe annually	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management	4.1, 4.2

	renaming the degree a Master of Science in Engineering Management.							
ENG TECH	Develop an on-line/hybrid Master's Degree in Construction Management; Revise the curriculum of the existing MS in Technology Management, removing the current construction management specialization, and renaming the degree a Master of Science in Engineering Management.		x	\$150,000 + fringe annually beginning in 2021	\$150,000 + fringe annually beginning in 2021 \$150,000 + fringe annually beginning in 2021 1	State/ University	With approval of curriculum proposal to add Mechanical, Electrical, and Civil ET	4.1, 4.2, 4.3, 4.5, 4.9, 4.10
ENG TECH	Add the necessary technicians (1 Civil ET-concrete, 1 Mech ET-mfg., & 1 IT Microcomputer), to support new programs.		x	\$50,000 + fringe annually beginning in 2021	\$50,000 + fringe annually beginning in 2021	State/ University	With approval of curriculum proposal to add the MS in Construction Management and rename the MS in Technology Management.	4.1, 4.2, 4.3, 4.5, 4.9, 4.10
CS	Adjust faculty salaries		x		\$1,250,000	State / University	Faculty Assessment	4.1
CS	Support increasing research activities		x	1 Budget Assistant 0.5 Administrative Assistant 1 Tech Support Staff	\$675,000+fringe	State / University	Faculty/staff assessment	4.1,2.1
PHYS	Improve faculty hiring and retention	x	x	6 NTL Faculty Salaries	\$852k + FB total	State / University		4.2
EARDC	Build endowment funds to support basic and applied Edwards Aquifer research	x	x		\$100,000	University Advancement	Increase in size of endowment	1.2, 1.3, 3.1, 3.3, 4.4