PROPOSED CHANGES TO THE COCKRELL SCHOOL OF ENGINEERING IN THE *UNDERGRADUATE CATALOG 2018-2020* or *LAW SCHOOL CATALOG 2018-2020*

TYPE OF CHANGE:[1] ☒ Academic Change
☐ Degree Program Change (THECB[2] form required)

PROPOSED CLASSIFICATION:[3] ☒ Exclusive ☐ General ☐ Major

1. IF THE ANSWER TO ANY OF THE FOLLOWING QUESTIONS IS YES, THE COLLEGE MUST CONSULT LINDA DICKENS, DIRECTOR OF ACCREDITATION AND ASSESSMENT, TO DETERMINE IF SACSCOC APPROVAL IS REQUIRED.

- Is this a new degree program? Yes ☐ No ☒
- Is this program being deleted? Yes ☐ No ☒
- Does the program offer courses that will be taught off campus? Yes ☐ No ☒
- Will courses in this program be delivered electronically? Yes ☐ No ☒

2. EXPLAIN CHANGE TO DEGREE PROGRAM AND GIVE A DETAILED RATIONALE FOR EACH INDIVIDUAL CHANGE:

1. **Transfer admission** – Language has remained the same and no changes have been made to procedures. This was edited to be comprehensible. First-semester engineering students have separate procedures and admission criteria compared to a continuing engineering student (internal transfer within the Cockrell School, after first semester added to clarify the criteria).
2. **External transfer** – Incomplete admission applications are not considered therefore this statement is inaccurate.
3. **Guidelines for transfer** – Removed "or the equivalent" as there is no equivalent to five semesters other than five semesters.
4. **Academic policies and procedures** – engineering no longer has major sequence.
5. **Repetition of course** – Many colleges/schools have a competitive internal transfer process therefore not all degrees are an option.
6. **Academic standards** – Circumstances include two new majors (computational and environmental) which have additional technical course requirements, which needed to be listed to make clearer.
7. **Professional and honor societies** – organization allows all students to participate.
8. **Applying for graduation** – The University has implemented auto-grad procedures which voided current graduation language.
9. **Final degree audit** – The University has implemented auto-grad procedures which voiced current graduation language.
10. **Commencement** – The Cockrell School will no longer participate in fall (December) commencement.
11. **Simultaneous major** – Clarification that the simultaneous major option is only available to undergraduates who have been admitted to both degree programs denoted.
12. **Correspondence and extension courses** – Wording was not clear so the phrase, "in residence [or through distance ed] at another school" has been removed to avoid confusion.
13. **Requirements included in all engineering degree plans** – there is more emphasis on flag requirements and students are encouraged to complete flags early in academic career.

3. THIS PROPOSAL INVOLVES: (Please check all that apply)

☐ Courses in other colleges	☐ Courses in proposer's college that are frequently taken by students in other colleges	☐ Flags
☐ Course in the core curriculum	☐ Change in course sequencing for an existing program	☐ Courses that have to be added to the inventory
☐ Change in admission requirements (external or internal)	☒ Requirements not explicit in the catalog language (e.g., lists of acceptable courses maintained by department office)	

4. SCOPE OF PROPOSED CHANGE:

a. Does this proposal impact other colleges/schools? Yes ☐ No ☒
If yes, then how would you do so?

b. Do you anticipate a net change in the number of students in your college? Yes ☐ No ☒
If yes, how many more (or fewer) students do you expect?

c. Do you anticipate a net increase (or decrease) in the number of students from outside of your college taking classes in your college? Yes ☐ No ☒
If yes, please indicate the number of students and/or class seats involved.

d. Do you anticipate a net increase (or decrease) in the number of students from your college taking courses in other colleges? Yes ☐ No ☒
If yes, please indicate the number of students and/or class seats involved.

If 4 a, b, c, or d was answered with yes, please answer the following questions:
If the proposal has potential budgetary impacts for another college/school, such as requiring new sections or a non-negligible increase in the number of seats offered, at least one contact must be at the college-level.

How many students do you expect to be impacted?
Impacted schools must be contacted and their response(s) included:
Person communicated with:
Date of communication:
Response:

e. Does this proposal involve changes to the core curriculum or other basic education requirements (42-hour core, signature courses, flags)? If yes, explain:
If yes, Undergraduate Studies must be informed of the proposed changes and their response included:
Person communicated with:
Date of communication:
Response:

f. Will this proposal change the number of hours required for degree completion? No
Note: THECB Semester Credit Hour Change Form required, download from URL:
http://www.thecb.state.tx.us/reports/DocFetch.cfm?DocID=2419&format=doc
If yes, explain:

5. COLLEGE/SCHOOL APPROVAL PROCESS

Department approval date:	May 24, 2017	Approved by whom: CSE Degrees & Courses Committee
College approval date:	Sept. 18, 2017	Approved by whom: CSE Faculty
Dean approval date:	Sept. 18, 2017	Approved by whom: Sharon L. Wood, Dean

PROPOSED NEW CATALOG TEXT:[4]

ADMISSION AND REGISTRATION

Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. All students who wish to major in engineering must be admitted to the University according to the procedures given in *General Information*.

Information is available from The University of Texas at Austin, Engineering [~~Student Services~~] Education and Research Center (EER), Cockrell School of Engineering, [~~2407~~] 2501 Speedway, C2108, Austin TX 78712. The telephone number is (512) 471-4321.

Students who have questions about the requirements of a specific degree plan should contact the appropriate departmental advising office. Additional information about academic advising can be found at http://www.engr.utexas.edu/undergraduate/advising.

Freshman Admission

Freshman applicants seeking admission to the Cockrell School must meet the calculus readiness requirement by the official admissions application deadline. More information about calculus readiness is available at http://www.engr.utexas.edu/undergraduate/admission/calculus/.

Applicants to the Cockrell School should use the online application at http://www.applytexas.org/ and select engineering as a first-choice major. When selecting a second-choice major, freshman applicants may choose from one of the many other majors offered at the University, [~~but~~]-and [~~may are encouraged to~~]-choose a second [~~engineering~~ major [~~when applying to the Cockrell School which~~] that aligns with their interests.

Transfer Admission

Internal Transfer

Internal transfer within the Cockrell School, first-semester engineering student

[~~An~~] A first-semester engineering student who wants to transfer to another major within the Cockrell School of Engineering must submit an application by the December 15 deadline for spring admission. [~~and the May 15 deadline for summer/fall admission~~]-Students who are applying during their first semester enrolled must meet the following requirements to be eligible for consideration:

1. Completion of at least fourteen [~~14~~] semester hours of coursework in residence.
2. Successful [~~C~~] completion of Mathematics 408C, for a letter grade, or a subsequent calculus course, taken in residence.
3. Successful [~~C~~] completion of a second technical course in residence for a letter grade that counts toward the engineering degree. Technical courses include courses offered in math, physics, chemistry, biology, geology, or engineering.

[~~*Engineering students who are applying after completing at least one semester must meet the requirements listed in the internal transfer from another division of the University section below.*~~]

Internal transfer within the Cockrell School, after first semester

Engineering students who want to transfer to another major within the Cockrell School must submit an application by the May 15 deadline for summer/fall admission and the December 15 deadline for spring admission. Engineering students who are applying after completing at least one semester must meet the following requirements to be eligible for consideration:

1. Completion of at least twenty-eight semester hours of coursework in residence at the University.
2. A cumulative in-residence grade point average of at least 3.00.
3. Successful completion of Mathematics 408D, Physics 303K, and 103M for a letter grade or their equivalents.
4. Successful completion of a minimum of four technical courses in residence for a letter grade that count toward the engineering degree, including the mathematics and physics coursework listed above. Technical courses include courses offered in math, physics, chemistry, biology, geology, or engineering.

Internal transfer from another division of the University

A student may transfer to the Cockrell School of Engineering from another division of the University in accordance with the regulations given in *General Information*. All students must submit an internal transfer application by the May 15 deadline for summer/fall admission.

Internal transfer applicants must meet the following requirements to be eligible for consideration:
1. Completion of at least twenty-eight [~~28~~] semester hours of coursework in residence at the University.
2. A cumulative in-residence grade point average of at least 3.00.
3. Successful [~~C~~] completion of Mathematics 408D, Physics 303K, and 103M for a letter grade or their equivalents.
4. Successful [~~C~~] completion of a minimum of four technical courses in residence for a letter grade that count toward the engineering degree, including the mathematics and physics coursework listed above. Technical courses include courses offered in math, physics, chemistry, biology, geology, or engineering.

Additional information for all internal transfer applicants:
- Only currently enrolled students may apply.
- Students may apply during the semester they are completing the minimum requirements to be eligible for consideration.
- Application forms are available online at http://www.engr.utexas.edu/undergraduate/admissions/changeofmajor.
- Admission to all engineering majors is offered as space is available to the students who are best qualified. For equally qualified applicants, preference is given to the student who has completed more of the required technical courses for the requested major.

[~~Some degree programs may have additional admission considerations; these are described in the individual degree plans.~~]

External Transfer

External transfer applicants will be required to meet the following minimum criteria to be considered for admission to an engineering major:
- Transfer credit for Mathematics 408L, 408M, or 408D
- Transfer credit for Physics 303K and 103M
- Transfer credit for at least four technical courses, including the mathematics and physics coursework listed above. Technical courses include courses offered math, physics, chemistry, biology, geology, computer science, or engineering.

[~~*Admission applications that are not complete by the March 1 deadline may be held to a higher admissions standard than those that are complete if enrollment limits are reached.*~~]

Guidelines for Transfer Students
1. Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in *General Information*. [~~Requirements for admission as a transfer student vary, but all~~] All transfer applicants must submit transcripts of all college and high school coursework.
2. Only courses listed in the student's engineering degree program, or equivalent courses accepted by the department chair and approved by the dean, may be counted toward an engineering degree. A course may therefore be accepted for transfer credit but not be applicable toward an engineering degree.
3. Courses that are common to all degree programs in the Cockrell School are listed in Requirements Included in All Engineering Degree Plans. These may be taken at any school offering courses acceptable for transfer to the University.
4. Completion of sequences of technical courses in the major area sometimes requires five or more semesters. Therefore, most transfer students should anticipate a minimum of five semesters ~~or the equivalent~~ in residence at the University.

Registration

General Information gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The *Course Schedule,* published online before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes.

To register for a course, a student must fulfill the prerequisite given in the catalog or course schedule. If the student has not fulfilled the prerequisite, he or she must obtain the approval of the department offering the course before registering for it.

Concurrent Enrollment

Concurrent enrollment refers to taking courses through The University of Texas at Austin Extension (UEX) program, or taking courses at another university or a community college. An engineering student must have the approval of the dean for concurrent enrollment. Application for this approval should be made online at http://www.engr.utexas.edu/undergraduate/forms. A student may not enroll concurrently in any course counted toward the degree in the semester he or she will be graduating. More information about the approval process is available in the Engineering Student Services located in the Engineering [~~Student Services Building~~] Education Research Center (EER[~~ESS~~]), by email at studentservices@engr.utexas.edu; or by phone at (512) 471-4321.

ACADEMIC POLICIES AND PROCEDURES

Grade Point Average for Academic Decisions

In the Cockrell School of Engineering, the grade point average used in all academic decisions is the average of grades the student has earned in residence in courses applicable to the degree. Academic decisions are decisions about engineering probation, engineering dismissal, internal transfer (change of major), [~~admission to the major sequence~~] admission to the Engineering Honors Program, designation as an Engineering Scholar, eligibility for graduation, and eligibility for graduation with University Honors.

Quantity of Work Rule

Maximum Number of Hours in the Long Session

As used in items 1 and 2 below, "coursework" includes correspondence courses, extension courses, distance education courses, non-required electives, physical activity courses, and courses for which the student is registered concurrently at another institution.

1. An engineering student may not register for more than seventeen [~~17~~] semester hours of coursework without an approved application to do so. Application is made online at http://www.engr.utexas.edu/undergraduate/forms/.
2. No student may register for more than twenty-one [~~21~~] semester hours of coursework during any long-session semester.

Rules for the Summer Session

A student may not receive credit for more than fourteen [~~14~~] semester hours during a twelve [~~12~~]-week summer session or for more than eight semester hours in a six-week summer term. These limits apply whether the courses are taken at the University or another institution. For more information about the quantity of work allowed in the summer, see *General Information*.

Repetition of a Course

An undergraduate in the Cockrell School may not enroll in any lower division courses in engineering, geology or natural sciences required by the engineering degree plan more than twice. A symbol of *Q* or *W* counts as an enrollment unless it is recognized as nonacademic by the dean's office.

To request permission to enroll in a course for a third or more attempt a student must submit a written appeal at https://utdirect.utexas.edu/link2/appeal_entry.WBX. A student may receive departmental adviser approval to enroll in a course a third or more times only if the student has a substantiated nonacademic reason for not successfully completing the course in earlier attempts. Documentation may be required by the departmental adviser

to support the substantiated nonacademic reason. If the student is denied approval to enroll in a required course, he or she will be placed in the undeclared major code and must consider other eligible degree options.

A student who is denied approval to repeat a course in residence at the University will also be denied approval to complete the course by transfer, extension, correspondence, distance education, or credit by examination and then count it toward the degree.

A student in the Cockrell School may not repeat for a letter grade a course in which he or she has earned a grade of *C-* or better.

Attendance

Engineering students are expected to attend all meetings of the classes for which they are registered. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes. With the approval of the dean, a student may be dropped from a course with a grade of *F* for repeated unexcused absences.

Portable Computing Devices

[~~The~~] All degree programs in the [~~following engineering fields Cockrell~~] School have specific expectations regarding portable computing devices. [~~:Aerospace Engineering, Architectural Engineering, Biomedical Engineering, Chemical Engineering, Civil Engineering, Electrical and Computer Engineering, Geosystems Engineering, Mechanical Engineering, and Petroleum Engineering~~] For more information, please see the catalog sections for these programs.

Academic Standards

In addition to the scholastic standards described in *General Information,* the Cockrell School imposes the following academic standards. Students who fail to meet the standards stated in *General Information* are placed on "scholastic probation" by the University. The probationary status given to those who fail to meet the following school standards is "engineering probation."

In cases with extenuating circumstances, the student may appeal to the dean for a waiver of any of the following requirements.

A student is placed on [~~academic~~] engineering probation [~~in engineering~~] under the following circumstances:

- If his or her grade point average in courses in the major area of study taken in residence falls below 2.00. The "major area of study" includes all courses in the student's discipline [~~(biomedical, chemical, electrical, mechanical, or petroleum and geosystems engineering)~~] and required under the student's engineering degree plan. For specific degree plans, there are additional courses included in the "major area of study:"
    - For architectural and civil engineering majors, the major area includes all courses in both architectural engineering and civil engineering;
    - [~~and~~] For environmental engineering majors, the major area includes all courses in architectural engineering, civil engineering and environmental engineering;
    - [~~f~~] For aerospace engineering majors, the major area includes all courses in both aerospace engineering and engineering mechanics
    - For computational engineering majors, the major area includes all courses in computational engineering, aerospace engineering and engineering mechanics;
    - [~~for~~] For geosystems engineering and hydrogeology majors, the major area includes all courses in both geological sciences and petroleum and geosystems engineering.

- If the student's grade point average in required technical courses taken in residence falls below 2.00. "Required technical courses" are courses taken in the Cockrell School, the College of Natural Sciences, or the Jackson School of Geosciences and required under the student's engineering degree plan; they include approved technical elective courses.

Grades received at the University in all courses in the major area, including grades in courses that have been repeated, are included in computing the student's grade point average.

A student on engineering probation will be removed from probation at the end of a long-session semester or summer session if the student is no longer subject to engineering probation under either of the criteria above.

After being placed on engineering probation, a student must be removed from probation within the next two long-session semesters in which he or she is registered. A student who fails to be removed from engineering probation within this time will be placed on engineering dismissal from the school.

A student seeking to reenter the school after having been scholastically dismissed from the University must enroll as an undeclared major unless there is a reasonable likelihood that the student can complete the degree plan under which he or she last registered. A student seeking to reenter the school after having been dismissed from engineering must enroll as an undeclared major. Students who are undeclared majors may not enroll in engineering courses.

Any student having academic difficulty should discuss his or her status with an academic adviser in the Engineering Student Services Office. Call (512) 471-4321 to set up an appointment with an academic adviser.

Pass/Fail Option

All courses required for all engineering degrees must be taken for a letter grade unless the course is offered only on the pass/fail basis. A student may elect to take courses that do not count toward the degree or are being taken to remove a deficiency on the pass/fail basis rather than for a letter grade. To elect the pass/fail system of grading:

1. The student must have received at least 30 hours of college credit before registering for any course on the pass/fail basis, unless the course is offered only on the pass/fail basis.
2. The student may take no more than two courses a semester on the pass/fail basis.
3. The student may take up to five one-semester courses, including correspondence courses, on the pass/fail basis.
4. The student must submit an application no later than the deadline given in the academic calendar at https://utdirect.utexas.edu/engine/pass_fail/index.WBX.

For information on how to receive credit by examination, see *General Information*.

Honors

University Honors

The designation University Honors, awarded at the end of each long-session semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered. Criteria for University Honors are given in *General Information*.

Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in *General Information*.

Cockrell School Honors Program

The Cockrell School of Engineering offers a select group of students the opportunity to participate in the Engineering Honors Program (EHP), a non-curriculum based program designed to enhance the undergraduate experience outside the classroom. Participants gain access to scholarships for first-year students, honors housing, faculty mentors and community building events hosted by [~~the University Honors Center and~~] the EHP.

When submitting an admission application to the University through ApplyTexas, incoming first-year students should mark engineering as their first-choice major and indicate their intent to apply for honors. Students will

receive additional instructions to complete the EHP application separately. Both the admission application and the EHP application are due December 1.

The Cockrell School also sends current students invitations to apply for the EHP after they complete 24 hours in residence and rank in the top 10 percent of their class and major. Eligible students must have at least 60 hours remaining in their degree program in order to receive an invitation to apply

To remain in the EHP, students must maintain an in residence grade point average of at least 3.50. The grade point average is evaluated each year after grades for the spring and summer semester have been awarded.

An EHP student who completes an optional undergraduate honors thesis will receive special honors designation on his or her transcript and is recognized during the graduation ceremony. Additional information about the honors thesis and the EHP is available at http://www.engr.utexas.edu/undergraduate/services/honors.

Engineering Scholars

Engineering Scholars are designated each spring semester from the sophomore, junior, and senior classes. To be eligible, a student must be enrolled in the Cockrell School, must have completed at least twenty-four [~~24~~] semester hours of coursework in residence while enrolled in the school, must have a grade point average that places him or her in the top 5 percent of the class, be of good character, and show promise of continued success in engineering. The grade point average used to determine the student's class rank includes only courses that the student has completed in residence and that are applicable to the degree.

Professional and Honor Societies

Professional student organizations play an important role in the life of an engineering student. Many of these are student branches of national professional engineering organizations that endeavor to advance the profession of engineering by education, service, professional development, publication, and support of meetings, activities, and conferences. In addition to a variety of professional development and social activities, engineering student organizations frequently support projects that aid students and benefit the Cockrell School of Engineering, the University, and the community.

Honor societies are also an important part of the Cockrell School student community. Honor societies admit students who have established outstanding scholastic records and have demonstrated desirable character and leadership traits. The engineering honor societies are Alpha Eta Mu Beta (biomedical engineering); Chi Epsilon (civil engineering); Eta Kappa Nu (electrical and computer engineering); Omega Chi Epsilon (chemical engineering); Phi Alpha Epsilon (architectural engineering); Pi Epsilon Tau (petroleum and geosystems engineering); Pi Tau Sigma (mechanical engineering); and Sigma Gamma Tau (aerospace engineering); Tau Beta Pi selects top students from all engineering disciplines. [~~Only students in the upper fifth of the senior class or the upper eighth of the junior class, and a few graduate students qualify scholastically for Tau Beta Pi membership consideration. Generally, the chapter elects fewer members than the number of eligible students.~~] Kappa Theta Epsilon is the cooperative engineering education honor society for all engineering majors who participate in the cooperative engineering program. [~~Students considered for membership must be enrolled in the cooperative engineering program and are in the top 20 percent of their class.~~]

The Student Engineering Council is the governing body representing all undergraduate engineering students. Representatives to the council are elected by the professional student organizations and honor societies in the Cockrell School; members-at-large are elected annually. The Graduate Engineering Council is the governing body representing all graduate engineering students.

Engineering student organizations and honor societies are overseen by Engineering Student Life. A complete list of engineering societies is available at http://www.engr.utexas.edu/studentlife/learn/.

GRADUATION

Special Requirements of the School

All University students must have a grade point average of at least 2.00 to graduate. Students in the Cockrell School must also have an in residence grade point average of at least 2.00 in all courses applicable to the degree, the major area of study and required technical courses. “Major area of study” and “required technical courses” are defined in the section “Academic Standards."

A candidate for a degree in engineering must be registered in the Cockrell School either in residence or in absentia the semester or summer session the degree is to be awarded. No later than the date given in the official academic calendar, the candidate must complete an online application form for graduation or graduation in absentia at /www.engr.utexas.edu/graduation/application/apply.

All individual degree programs must include at least forty-eight [~~48~~] semester hours of engineering coursework.

Residence Rules

All University students must complete in residence at least sixty [~~60~~] semester hours of the coursework counted toward the degree. In the Cockrell School, thirty [~~30~~] of these sixty [~~60~~] hours must be in the major field or in a field closely related to the major as approved by the major department and the dean.

At least the last twenty-four [~~24~~] hours of technical coursework counted toward an engineering degree must be taken while the student is registered as an undergraduate engineering major at the University. A student seeking an exception to this requirement must obtain written approval in advance from the dean. Information about the petition process is available in the Engineering Student Services Office, located in the Engineering [~~Student Services Building~~] Education and Research Center (EER~~SS~~).

Degree Audit

Each student should review his or her degree audit every semester through IDA, the University’s Interactive Degree Audit system. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and for registering so as to fulfill these requirements; see the rules on graduation under a particular catalog. Since the student is responsible for correct registration toward completion of the degree program, he or she should first check the requirements with their department Undergraduate Advising Office and then seek an official ruling in the Engineering Student Services Office before registering if in doubt about any requirement. Avoidance of errors is the main purpose of the degree audit, but it remains the responsibility of the student to fulfill all catalog requirements.

Applying for Graduation

Students must apply for graduation the first semester they are eligible to graduate.[~~. Failure to do so will jeopardize the student’s future registration in the Cockrell School. Any subsequent registration must be recommended by the undergraduate adviser and approved by the dean.~~] A student is eligible to graduate if their engineering degree audit is 100 percent complete. If a student fails to submit an application for degree by the deadline given in the academic calendar, an application for degree may be submitted by his or her academic Dean or designee. An application submitted under these circumstances cannot be canceled without a successful appeal to the Office of the Provost (Student Success Initiatives). Please refer to the Graduation Appeal Application for further information.

[~~A student is considered eligible to graduate if he or she can complete all remaining course requirements by registering for 12 semester hours or fewer. Any student who does not graduate when eligible must~~] Please contact the Engineering Student Services Office, located in the Engineering Education and Research Center [~~Student Services Building~~] (EER[~~SS~~]) or by phone at (512) 471-4321 for further questions. [~~The degree auditor will advise the student what steps are needed for future registration and graduation.~~]

Nonresidence Coursework

A student in his or her final semester may not enroll concurrently at another institution in any course, including a distance education course, to be counted toward the degree. In the final semester, the student may also not enroll by extension or correspondence in coursework to be counted toward the degree. All transfer, extension, and correspondence coursework must be added to the student's official record before his or her last semester.

[~~Final Degree Audit~~

[~~The student must complete all procedures associated with the final degree audit.~~
[~~Any student who does not graduate when eligible must contact the Engineering Student Services Office in the Engineering Student Services Building (ESS). The degree auditor will advise the student what steps are needed for future registration and graduation.~~]

Second Degrees

A student who completes a bachelor's degree in engineering may receive a second bachelor's degree in a second engineering discipline if the student meets all the requirements of the second degree that he or she did not meet in completing the first degree. This process is subject to approval by the Engineering Student Services Office. No student may receive two bachelor's degrees in the same discipline of engineering, even if the technical area options are different. For example, a student may receive the degree of Bachelor of Science in Chemical Engineering and that of Bachelor of Science in Mechanical Engineering but may not receive two Bachelor of Science in Chemical Engineering degrees. A student may not receive bachelor's degrees in both architectural engineering and civil engineering.

Commencement

In addition to the University commencement ceremony held each spring, the Cockrell School holds [~~graduation ceremonies in December and~~] a commencement ceremony in May. [~~August d~~]-Degree candidates [~~who have completed a degree audit and online graduation application may participate in~~] intending to graduate in the current academic year and who have applied to participate are eligible to attend the May [~~graduation~~] commencement ceremony. Information about graduation and commencement is available at http://www.engr.utexas.edu/graduation.

Registration as a Professional Engineer

The practice of engineering has a profound effect on public health, safety, and welfare. Therefore, the commitment to the public good through the licensing or registration provisions available in all states and many foreign countries is an important step in the professional development of an engineer. Becoming licensed in Texas as a professional engineer requires graduation from an approved curriculum in engineering, passage of the examination requirements, and a specific record of an additional four years or more of active practice in engineering work indicating that the applicant is competent to be placed in responsible charge of such work. Additional requirements include good character and reputation.

Engineering students are encouraged to take the Fundamentals of Engineering examination during their last long-session semester and to seek certification as an "engineer in training."

For additional information, contact the Texas Board of Professional Engineers or the equivalent agency in another state.

DEGREES AND PROGRAMS

To satisfy the course requirements for an engineering degree, a student must earn credit for all of the courses listed in the curriculum for that degree.

All University curricula leading to bachelor's degrees in engineering are accredited by the Engineering Accreditation Commission of ABET, www.abet.org. ABET sets minimum standards for engineering education, defined in terms of curriculum content, the quality of the faculty, and the adequacy of facilities. Graduation from an accredited program is an advantage when applying for membership in a professional society or for registration as a professional engineer.

Dual Degree Programs

Engineering/Plan II Honors Program

A limited number of students whose high school class standing and admission test scores indicate strong academic potential and motivation may pursue a curriculum leading to both a bachelor's degree in engineering and the Bachelor of Arts, Plan II. This dual degree option, offered jointly by the Cockrell School and the Plan II Honors Program of the College of Liberal Arts, provides the student with challenging liberal arts courses while he or she also pursues a professional degree in engineering. Admission to this program requires at least two separate applications: one to the University and one to the Plan II Honors Program. Students should contact both the Cockrell School Engineering Student Services Office, located in the Engineering Education and Research Center [~~Student Services Building~~] (EER[~~SS~~]), and the Plan II office, located in the Liberal Arts Building (CLA), for more information on applications and early deadlines.

Architectural Engineering/Architecture

A program that leads to both the Bachelor of Science in Architectural Engineering degree and the Bachelor of Architecture degree is available to qualified students. The program combines the course requirements of both degrees and requires six years for completion. Students who wish to pursue both degrees must apply for admission to the School of Architecture according to the procedures and deadlines established by the school. The program is described in Bachelor of Architecture/ Bachelor of Science in Architectural Engineering Dual Degree Program; additional information is available from the undergraduate adviser for architectural engineering.

Simultaneous Majors

An engineering student may pursue two majors simultaneously. The student must follow all procedures and meet all requirements associated with both majors. An engineering student may not pursue two engineering majors simultaneously.

The simultaneous major option is available only to undergraduates who have been admitted to both degree programs. [~~completed 30 hours of coursework in residence at the University and who have been admitted to both degree programs.~~]

Technical Area Options

Several engineering degree programs require a student to select a "technical area option" and to complete a specified number of courses in that area. Other degree programs do not require a student to specify a particular option but allow the student to choose courses either within an area of specialty or more broadly across technical areas. Although most options are designed to help the student develop greater competence in a particular aspect of the major, others permit the student to develop background knowledge in areas outside the major. In many cases, students who elect the latter options intend to continue their education in professional or graduate school; these options are particularly appropriate for students who plan to work in those interdisciplinary areas where the creation of new technology through research and development is very important.

Preparation for Professional School

Technical area options also allow the student to fulfill the special course requirements for admission to professional schools. For more information, students should consult an adviser who is familiar with the admission requirements of the professional program in which the student is interested.

Medical School

A properly constructed program in engineering provides excellent preparation for entering medical school. The engineer's strong background in mathematics and natural science--combined with a knowledge of such subjects as applied mechanics, fluid dynamics, heat transfer, thermodynamics, chemical kinetics, diffusion, and electricity and magnetism--enhance the mastery of many aspects of medical science. An engineering background is also useful to those who develop and use new instruments for detecting and monitoring medical abnormalities. The engineering/premedical programs described in this catalog usually afford opportunities to pursue alternative vocations for those who do not enter medical school. Students who intend to apply for admission to a medical school should contact the University's Health Professions Office for information about admission requirements and application and test deadlines.

Dental School

Much of the information above about medical school applies also to dental school. All applicants must take the Dental Admission Test. Certain courses not taken by all engineers are also required, but these vary markedly from school to school. Students who are interested in dentistry can obtain specific information from the University's Health Professions Office.

Law School

Each year a few graduates, representing all engineering disciplines, elect to enter law school, where they find their training in careful and objective analysis is a distinct asset. Many of these students are preparing for careers in patent or corporate law that will enable them to draw on their combined knowledge of engineering and law. Others may not plan to use their engineering knowledge directly, but they still find that the discipline in logical reasoning acquired in an engineering education provides excellent preparation for the study of law. Students interested in admission to the law school of the University should consult the *Law School Catalog*. Students interested in pursuing law school outside of the University may utilize pre-law services of the Liberal Arts Career Service Center. In addition, the Engineering Career Assistance Center (ECAC) provides pre-law advising.

Graduate Study in Business

Since many engineering graduates advance rapidly into positions of administrative responsibility, it is not surprising that they often elect to do graduate work in the area of business administration. In addition to an understanding of the technical aspects of manufacturing, the engineer has the facility with mathematics to master the quantitative methods of modern business administration.

Requirements for admission to the University’s graduate business programs are outlined in the *Graduate Catalog*. Many engineering degree programs offer technical area options that include business and management courses. These can be used with advantage by students who plan to do graduate-level work in business. Students interested in pursuing a graduate business program outside of the University may utilize the Engineering Career Assistance Center (ECAC) for career advising.

ABET Criteria

To be accredited by the Engineering Accreditation Commission of ABET, a degree plan of the Cockrell School must include the following:

1. One year of a combination of college level mathematics and basic sciences (some with experimental experience) appropriate to the discipline. Basic sciences are defined as biological, chemical, and physical sciences.
2. One and one-half years of engineering topics, consisting of engineering sciences and engineering design appropriate to the student's field of study. The engineering sciences have their roots in mathematics and basic sciences but carry knowledge further toward creative application. These studies provide a bridge between mathematics and basic sciences on the one hand and engineering practice on the other. Engineering design is the process of devising a system, component, or process to meet desired needs. It is a decision-making process

(often iterative), in which the basic sciences, mathematics, and the engineering sciences are applied to convert resources optimally to meet these stated needs.

3. A general education component that complements the technical content of the curriculum and is consistent with the program and institution objectives.

Students must be prepared for engineering practice through a curriculum culminating in a major design experience based on the knowledge and skills acquired in earlier course work and incorporating appropriate engineering standards and multiple realistic constraints.

Here, one year is defined as either 32 semester hours (or equivalent), or one-fourth of the total credits required for graduation, whichever is lesser.

Liberal Education of Engineers

Each student must complete the University's Core Curriculum. The core curriculum includes the first-year signature course and courses in English composition, American and Texas government, American history, mathematics, science and technology, visual and performing arts, humanities, and social and behavioral sciences. It must be an integral part of all engineering degree programs, so that engineering graduates will be aware of their social responsibilities and the effects of technology on society. UT Austin believes every undergraduate should be exposed to a set of skills and experiences in preparation for a complex world. To this end, all undergraduates at UT are required to earn Flags—courses that include a substantial focus on cultural diversity in the U.S., ethics and leadership, global cultures, independent inquiry, quantitative reasoning, and writing.

With the appropriate selection of courses, the University's [~~core~~] Core Curriculum, Flags, and ABET general education requirements can be satisfied simultaneously.

Social and Behavioral Sciences Requirement

As part of the University's [~~core~~] Core [~~curriculum~~] Curriculum, each student must complete three semester hours of coursework in social and behavioral sciences. Additionally, the Core Curriculum social and behavioral science course may be satisfied simultaneously for flag requirement(s) as well as coursework in a potential minor and certificate program. [~~Students preparing for the professional practice of engineering are encouraged to select coursework in economics to fulfill this requirement.~~]

Visual and Performing Arts Requirement

As part of the University's Core Curriculum, each student must complete three semester hours of coursework in visual and performing arts. Architectural engineering majors must take an approved architectural history course as part of the Bachelor of Science in Architectural Engineering requirement. This course (or its prerequisite) will fulfill the visual and performing arts requirement of the Core Curriculum. Additionally, the Core Curriculum visual and performing arts course may be satisfied simultaneously for flag requirement(s) as well as coursework in a potential minor and certificate program.

Foreign Language Requirement

In accordance with the University's basic education requirements, all students must demonstrate proficiency in a foreign language equivalent to that shown by completion of two semesters of college coursework. Credit earned at the college level to achieve the proficiency may not be counted toward a degree. For a student admitted to the University as a freshman, this requirement is fulfilled by completion of the two high school units in a single foreign language that are required for admission; students admitted with a deficiency in foreign language must remove that deficiency as specified in *General Information*.

Applicability of Certain Courses

Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. They may not be counted toward a degree in the Cockrell School. However, they are counted as courses for which the student is enrolled, and the grades are included in the University grade point average.

ROTC Courses

The dean, upon recommendation of the department adviser, has the authority to substitute an equivalent air force science, military science, or naval science course or courses for a course or courses prescribed by the Cockrell School of Engineering, up to a maximum of twelve semester credit hours. Core curriculum courses cannot be substituted.

Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by UT Austin correspondence/extension ~~from the university~~ or elsewhere [~~or in residence~~] or through distance education at another school will not be counted toward a degree in the Cockrell School unless specifically approved in advance by the dean. Application for this approval should be made online or at the Engineering Student Services Office, located in the Engineering [~~Student Services Building~~] Education and Research Center (EER[~~ESS~~]). No more than twenty [~~20~~] semester hours required for any degree offered in the Cockrell School may be taken by correspondence and extension.

Requirements Included in All Engineering Degree Plans

Each student must complete the University's Core Curriculum. In the process of fulfilling engineering degree requirements, students must also complete: one independent inquiry flag, one quantitative reasoning flag, one ethics and leadership flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics and leadership flag and at least one writing flag are carried by courses specifically required for each engineering degree plan. As applicable, students are advised to fulfill the second writing flag and global culture and cultural diversity requirements with a course that meets another requirement of the core curriculum, such as the first-year signature course. Students are encouraged to complete flag requirements within the first and second year of their degree program. Additionally, students are encouraged to discuss options with his or her departmental academic adviser. Courses that may be used to fulfill flag requirements are identified in the *Course Schedule*.

In addition, students in all engineering degree plans must complete the following requirements. In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

Courses	Sem Hrs
Engineering Communication	
• Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T (This course may also be counted toward the writing flag requirement. This course may also be counted toward the ethics and leadership flag requirement.)	3
Mathematics	
• Mathematics 408C, *Differential and Integral Calculus* (This course may also be used to fulfill the mathematics requirement of the core curriculum and the quantitative reasoning flag requirement.)	4
• Mathematics 408D, *Sequences, Series, and Multivariable Calculus*	4

• Mathematics 427J, *Differential Equations with Linear Algebra* or Mathematics 427K, *Advanced Calculus for Applications I*. This course may also be used to fulfill the quantitative reasoning flag requirement.)	4
Physics	
• Physics 303K, *Engineering Physics I* (This course may also be counted toward the science and technology, part I, requirement of the core curriculum and the quantitative reasoning flag requirement.)	3
• Physics 103M, *Laboratory for Physics 303K*	1
• Physics 303L, *Engineering Physics II* (This course may also be counted toward the science and technology, part I, requirement of the core curriculum and the quantitative reasoning flag requirement.)	3
• Physics 103N, *Laboratory for Physics 303L*	1

Length of Degree Program

An eight-semester arrangement of courses leading to the bachelor's degree is given for each of the engineering degree plans. The exact order in which the courses are taken is not critical, as long as the prerequisite for each course is fulfilled. A student who registers for fewer than the indicated number of hours each semester will need more than eight semesters to complete the degree. The student is responsible for including in each semester's work any courses that are prerequisite to those he or she will take the following semester.

[~~. The first three semesters of all curricula contain many of the same courses. This commonality gives students some freedom to change degree plans without undue loss of credit.~~]

[1] See https://facultycouncil.utexas.edu/degree-program-changes for detailed explanations.
[2] Submit required Texas Higher Education Coordinating Board forms to the provost's office (lydia.cornell@austin.utexas.edu); downloadable from URL https://facultycouncil.utexas.edu/thecb-forms
[3] **EXCLUSIVE**: of *exclusive* application and of primary interest only to a single college or school ("no protest" period is *seven calendar days*); **GENERAL**: of *general* interest to more than one college or school (but not for submission to the General Faculty) ("no protest" period is *fourteen calendar days); major* legislation must be submitted to the General Faculty for adoption ("no protest" period is *fourteen calendar days)*.
[4] The proposed text should be based on the text of the current catalog available at: http://catalog.utexas.edu/undergraduate/
Strike through and replace (with underlines) only the specific language to be changed. Do NOT use track changes, and do not include hyperlinks in the catalog copy. Submit form electronically to the Office of the General Faculty and Faculty Council at fc@austin.utexas.edu. For questions on completing this section, please contact Victoria Cervantes, fc@austin.utexas.edu, 471-5934 or Brenda Schumann, brenda.schumann@austin.utexas.edu, 475-7654.