The course offerings and requirements of the University of Tennessee are continually under examination and revision. This student guide presents the offerings and requirements in effect at the time of publication, but there is no guarantee that they will not be changed or revoked. Current information may be obtained from the following sources:

**Admission Requirements:** admissions.utk.edu.

**Course Offerings:** *Contact the department offering the course.

**Degree Requirements:** *Contact the Office of the University Registrar, departmental advisor, head of major department, College Advising Center, or dean of college/school.

**ABET:** The university’s engineering programs are fully accredited by the ABET Engineering Accreditation Program.

*Refer to the engineering and campus resources sections on pages 3 and 4 of this book for a more comprehensive list of resources and contact information at the University of Tennessee.

**CREDITS:** Tickle College of Engineering Communications Office

Cover photo: This waterwheel and bicycle-gears lift system was developed by students as a project for Engineering Fundamentals 152. Photograph by Randall Brown.

All qualified applicants will receive equal consideration for employment and admission without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, genetic information, veteran status, and parental status. In accordance with the requirements of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, the University of Tennessee affirmatively states that it does not discriminate on the basis of race, sex, or disability in its education programs and activities, and this policy extends to employment by the university. Inquiries and charges of violation of Title VI (race, color, and national origin), Title IX (sex), Section 504 (disability), the ADA (disability), the Age Discrimination in Employment Act (age), sexual orientation, or veteran status should be directed to the Office of Equity and Diversity, 1840 Melrose Avenue, Knoxville, TN 37996-3560, telephone 865-974-2498. Requests for accommodation of a disability should be directed to the ADA Coordinator at the Office of Equity and Diversity. A project of the Tickle College of Engineering. PAN E01-1399-018-18. Job 322910.
Welcome!
### Additional Resources

<table>
<thead>
<tr>
<th>Resource Name</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Health Services Clinic</td>
<td>401 Volunteer Boulevard 865-974-3135</td>
</tr>
<tr>
<td>Center for International Education</td>
<td>409 Student Services Building 865-974-3171</td>
</tr>
<tr>
<td>Engineering Diversity Programs</td>
<td>130 Howard Baker Center 865-974-7875</td>
</tr>
<tr>
<td>University Honors Program</td>
<td>405 Student Services Building 865-974-3257</td>
</tr>
<tr>
<td>Veterans Student Services</td>
<td>6020 Hodges Library 865-974-5420</td>
</tr>
<tr>
<td>VolCard (UT ID) Office</td>
<td>472 South Hall Gate 12-13 865-974-3430</td>
</tr>
<tr>
<td><strong>Contact information for individual colleges:</strong></td>
<td></td>
</tr>
<tr>
<td>Agricultural Sciences &amp; Natural Resources</td>
<td>130 Morgan Hall Phone: 865-974-7303</td>
</tr>
<tr>
<td>Architecture &amp; Design</td>
<td>224 Art &amp; Architecture Building 865-974-3222</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>316A Ayres Hall Phone: 865-974-4481</td>
</tr>
<tr>
<td>Business</td>
<td>342 Haslam Business Building Phone: 865-974-5096</td>
</tr>
<tr>
<td>Communication &amp; Information</td>
<td>202 Communications Building Phone: 865-974-3603</td>
</tr>
<tr>
<td>Education, Health, &amp; Human Sciences</td>
<td>322 Bailey Education Complex Phone: 865-974-8194</td>
</tr>
<tr>
<td>One Stop Shop</td>
<td>36A, Perkins Hall Phone: 865-974-4008</td>
</tr>
<tr>
<td>Food Services</td>
<td>225 Nursing Building Phone: 865-974-7606</td>
</tr>
<tr>
<td>Social Work</td>
<td>303 Henson Hall Phone: 865-974-3351</td>
</tr>
</tbody>
</table>

### Academic Advising

The Tickle College of Engineering is committed to the belief that academic advising engages students by teaching them how to become members of the higher education community, to think critically about their role and responsibilities as engineers, and to prepare them to be educated members of a global community.

Prior to advanced registration, all students who have earned fewer than 30 hours at UT Knoxville or are on Academic Probation, or have not declared a major within a specific college (undecided, pre-major, interest, undeclared) or are flagged as OFF Track by UTrack system are required to meet with an advisor during each main term of the academic year (i.e., during fall and spring). All other students are required to consult with an advisor for a substantial conference during a designated term each year. Students whose ID numbers end in an even digit are required to meet with an advisor during fall semester. Students whose ID numbers end in an odd digit are required to meet with an advisor during spring semester. However, Engineering students are encouraged to consult regularly with their major advisor during each semester of the academic year, especially if they plan to participate in internship or co-op positions that might affect class scheduling.

Once students in the Tickle College of Engineering finish the first-year coursework, they progress to their major and are assigned to a departmental advisor with a faculty mentor. This is typically after students complete Math 141-142 (Honors 147-148) and EF 151-152 (Honors 157-158). In all cases progression to the major includes being in Good Academic Standing (2.00 or better cumulative GPA). For most students this will be at the end of freshmen year, but for some it might be the following year in December if they finish these courses in the Fall semester.

**New Students**

New freshman students are assigned to the Engineering Advising Office for academic advising until they have completed the freshman curriculum. Freshman students admitted to the Tickle College of Engineering are required to designate a field of study by the end of their freshman year. Upon completion of Engineering Fundamentals 152 (or equivalent), the students are assigned professional advisors with faculty mentors in their selected departments.

**Academic Advising**

The Engineering Advising Office delivers academic advising on an appointment basis. To make an appointment, use the e-mail link sent to you to schedule using Grades First.

Advising for students starts with honors, then EF 152, EF 151, and Math 130.

Advising appointments are normally offered on thirty-minute individual intervals. Hours of operation are from 8:00 a.m. to 5:00 p.m. (Eastern), Monday through Friday.

**Academic Standing**

The University of Tennessee, Knoxville, expects all students who enter to make progress toward graduation. To graduate from UT Knoxville, a student must earn a minimum cumulative grade point average (GPA) of 2.00. The university reviews students' academic records at the end of each term to determine academic standing. The catalog contains additional requirements for specific programs.

**Good Academic Standing**

A student is in good academic standing when both the student's term and cumulative GPAs are 2.00 or higher or, if after two consecutive terms, the student's cumulative GPA is 2.00 or higher and at least one term GPA is also 2.00 or higher.

**Academic Probation**

A student will be placed on Academic Probation when (1) his/her cumulative GPA falls below the minimum acceptable level of 2.00 for one semester or (2) the semester GPA falls below the minimum acceptable level of 2.00 for two consecutive terms of enrollment. During the semester that a student is placed on Academic Probation, and any other semesters in Academic Probation, a student must participate in a special directive advising program to help the student address concerns that are impacting his/her academic performance and to outline a plan for achieving academic success. This model of early intervention is designed to help students regroup and position themselves for academic success. Students on Academic Probation status during a term will automatically be dismissed at the end of that term if both:

- The cumulative GPA is below a 2.00, and
- The term GPA is below a 2.00

A student will no longer be on academic probation when his or her cumulative grade point average is 2.00 or higher and the term grade point average is 2.00 or higher. This policy is in place in recognition of the University of Tennessee, Knoxville’s minimum grade point average of 2.00 for graduation.
Collaborative and Integrated Advising Community Supporting Student Success

Professional Advisor — Assist students in the development of educational plans that are consistent with their aspirations, interests, and strengths; encourage students’ holistic engagement (academically, socially, culturally, and professionally) with the college experience. Educate students about curricular requirements, academic standards/policies related to a chosen major. Guide students through career and professional development opportunities available. Assist students with course planning, academic forms, and technologies such as DARS, MyUTK, Grades First, and Alumni Career Database.

Faculty — Reinforce academic strategies to be successful in the major. Discuss faculty research in the major, preplanning for graduate school interests, career opportunities in major field, collaborate with professional advisors on specific student issues. Discuss major specific course content, technical electives in the major, and concentrations and/or minors for the major.

Career Counselor — Guide students through self-exploration process that includes strengths, interests, abilities, and challenges relating those to the world of work and goals in higher education. Assisting students in developing educational plans that are consistent with academic and career goals. Refer to campus resources that support career exploration, experience learning, and leadership opportunities. Guide students through developing resume and interview skills.

Transition Advisor — Advising and creating new academic plans for students no longer meeting major requirements and are required to change majors/colleges. Advising prospective and transfer students who are not admitted to the college of their choice. Advising students and creating new academic plans with students who want to change colleges/majors but are unclear as to their new academic/career goals.

Success Center Coach — Teach and support academic success strategies such as time management, prioritization of involvements, test taking skills, campus tutoring opportunities.

How is College Life Different from High School?

<table>
<thead>
<tr>
<th>Personal Freedom in High School</th>
<th>Personal Freedom in College</th>
</tr>
</thead>
<tbody>
<tr>
<td>You may be able to join many clubs and activities while taking classes.</td>
<td>You must be selective in your participation choices to avoid overextending yourself.</td>
</tr>
<tr>
<td>Your time is usually structured by others.</td>
<td>You manage your own time.</td>
</tr>
<tr>
<td>Guiding principle: You will usually be told what your responsibilities are and corrected if your behavior is out of line.</td>
<td>Guiding Principle: You are old enough to take responsibility for what you do and don’t do, as well as for the consequences of your decisions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High School Classes</th>
<th>College Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>You spend 6 hours each day—30 hours a week—in class.</td>
<td>You spend 12 to 16 hours each week in class.</td>
</tr>
<tr>
<td>The school year is 36 weeks long; some classes extend over both semesters and some do not.</td>
<td>The academic year is divided into 2 separate 15 week semesters plus a week for exams. Summer School is in 3 sessions; First and Second are 4 weeks each and Full is all summer.</td>
</tr>
<tr>
<td>You are provided with textbooks at little or no expense.</td>
<td>You need to budget substantial funds for textbooks.</td>
</tr>
<tr>
<td>You are not responsible for knowing what it takes to graduate.</td>
<td>Graduation requirements are complex and differ for different majors and sometimes different catalog years. You are expected to know those that apply to you. Learn to run your DARS report.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High School Teachers</th>
<th>College Professors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers check your completed homework.</td>
<td>Professors may not always check completed homework, but they will assume you can perform the same tasks on tests.</td>
</tr>
<tr>
<td>Teachers remind you of your incomplete work.</td>
<td>Professors may not remind you of incomplete work.</td>
</tr>
<tr>
<td>Teachers approach you if they believe you need assistance.</td>
<td>Professors are open and helpful, but most expect you to initiate contact if you need assistance.</td>
</tr>
<tr>
<td>Teachers present material to help you understand the material in the textbook.</td>
<td>Professors may not follow textbooks. Instead to amplify the text, they may give illustrations, provide background information, or discuss research about the topic you are studying. They may expect you to relate the classes to the textbook readings.</td>
</tr>
<tr>
<td>Teachers often write information on the board to be copied in your notes.</td>
<td>Professors may lecture nonstop, expecting you to identify the important points in your notes. When professors write on the board it may be to amplify the lecture, not to summarize it. Good note taking skills are a must.</td>
</tr>
<tr>
<td>Teachers often take the time to remind you of assignment and due dates.</td>
<td>Professors expect you to read, save, and consult the course syllabus. It spells out exactly what is expected of you, when assignments are due, and how you will be graded.</td>
</tr>
</tbody>
</table>
### How is College Life Different from High School?

<table>
<thead>
<tr>
<th>Studying in High School</th>
<th>Studying in College</th>
</tr>
</thead>
<tbody>
<tr>
<td>You may study outside of class as little as 0 to 2 hours a week, and this may be mostly last minute test preparations.</td>
<td>You need to study at least 2 to 3 hours outside of class every hour in class.</td>
</tr>
<tr>
<td>You often need to read or hear presentations only once to learn all you need to learn about them.</td>
<td>You need to review class notes and text material regularly.</td>
</tr>
<tr>
<td>You are expected to read short assignments that are then discussed, and often re-taught, in class.</td>
<td>You are assigned substantial amounts of reading and problem solving which may not be directly addressed in class.</td>
</tr>
<tr>
<td>Guiding principle: You will usually be told in class what you need to learn from assigned readings.</td>
<td>Guiding Principle: It is up to you to read and understand the assigned materials; lecture and assignments proceed from the premise that you have already done so.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tests in High School</th>
<th>Tests in College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing is frequent and covers small amounts of material.</td>
<td>Testing is usually infrequent and may be cumulative, covering large amounts of material. You, not the professor, need to organize the materials to prepare for the test. A course may only have 2 or 3 tests in a semester.</td>
</tr>
<tr>
<td>Time to finish tests may be abundant.</td>
<td>Testing in college requires you to budget your time and finish in time allowed.</td>
</tr>
<tr>
<td>Testing may ask for large amounts of memorization of material.</td>
<td>Testing in college will be applied knowledge to new problems and not memorization.</td>
</tr>
<tr>
<td>Teachers frequently conduct review sessions, pointing out the most important concepts.</td>
<td>Professors rarely offer review sessions, and when they do, they expect you to be an active participant, one who comes prepared with questions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grades in High School</th>
<th>Grades in College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistently, good homework grades may help raise your overall grade when test grades are low.</td>
<td>Grades on tests and major papers usually provide most of the course grade.</td>
</tr>
<tr>
<td>Extra credit projects are often available to help you raise your grade.</td>
<td>Extra credit projects are often NOT available in college classes.</td>
</tr>
<tr>
<td>Initial test grades, especially when they are low, may not have an adverse effect on your final grade.</td>
<td>Watch out for your first tests. These are usually wake up calls to let you know what is expected. Seek tutoring support early and often in classes where low test grades happen. Tests may count different percentages toward your total grade- read your syllabus.</td>
</tr>
</tbody>
</table>

**Tutoring in high school**

**Tutoring in college**

Students may only seek tutoring when failing. Students seek tutoring from the beginning to help earn the best grades possible.

Tutoring is mainly with a teacher: one on one. Tutoring in college may be with a professor or tutoring center staff or fellow student on campus. Often in small group or classroom setting.

### Scholarships, Student Organizations, Technology & Student Privacy

**Tickle College of Engineering Undergraduate Scholarships**

The Tickle College of Engineering annually awards an average of nearly $1,000,000 in scholarships to qualified undergraduate students. Students must be accepted into the University of Tennessee and the Tickle College of Engineering to apply for engineering scholarships. Students need not apply for specific scholarships as the Scholarship Committee will match qualified students with available awards. Please contact the One Stop Shop for the complete list of application requirements and deadlines, Hodges Library Ground Floor, 865-974-1111, onestop@utk.edu.

The returning/transfer student scholarship application is on MyUTK. Application deadline is February 1. Scholarships are awarded each academic year in the spring for the upcoming fall semester. For more information contact the Academic and Student Affairs Office at 865-974-2454 or stop by 101 Perkins Hall.

**Student Organizations and Honor Societies**

<table>
<thead>
<tr>
<th>Student Organizations</th>
<th>Honor Societies</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Institute of Aeronautics and Astronautics</td>
<td>• Material Advantage</td>
</tr>
<tr>
<td>American Institute of Chemical Engineers</td>
<td>• National Society of Black Engineers</td>
</tr>
<tr>
<td>American Nuclear Society</td>
<td>• Society of Hispanic Professional Engineers</td>
</tr>
<tr>
<td>American Society of Agricultural and Biological Engineers</td>
<td>• Society of Automotive Engineers</td>
</tr>
<tr>
<td>American Society of Civil Engineers</td>
<td>• Society of Plastics Engineers</td>
</tr>
<tr>
<td>American Society of Mechanical Engineers</td>
<td>• Society of Women Engineers</td>
</tr>
<tr>
<td>Associated Contractors of America</td>
<td>• Systers: Women in EECs</td>
</tr>
<tr>
<td>Association of Computing Machinery</td>
<td>• Theta Tau Professional Engineering Fraternity</td>
</tr>
<tr>
<td>Biomedical Engineering Society</td>
<td>• UTK Volunteers Without Borders</td>
</tr>
<tr>
<td>Tickle College of Engineering Ambassadors</td>
<td>• Women in Nuclear</td>
</tr>
<tr>
<td>Engineering Mentor Program</td>
<td>Honor Societies</td>
</tr>
<tr>
<td>FIRST Alumni at UT Knoxville</td>
<td>• Alpha Nu Sigma, Nuclear Engineering Honor Society</td>
</tr>
<tr>
<td>Institute of Electrical and Electronics Engineers</td>
<td>• Chi Epsilon, Civil Engineering Honor Society</td>
</tr>
<tr>
<td>Institute of Industrial Engineers</td>
<td>• Eta Kappa Nu, Electrical Engineering Honor Society</td>
</tr>
<tr>
<td>Institute of Transportation Engineers</td>
<td>• Pi Tau Sigma, National Mechanical Engineering Honor Society</td>
</tr>
<tr>
<td>• American Society of Agricultural and Biological Engineers</td>
<td>• Tau Beta Pi, National Engineering Honor Society</td>
</tr>
</tbody>
</table>

**Technology**

engr.utk.edu/ithelp/computers

Laptops are required for all students, including incoming freshmen. VoTech, located within the Student Union on campus, sells Apple and PC computers, mobile devices, and accessories at reduced rates for students. The website is shop.utk.edu/c-276-technology.aspx.

**FERPA STATEMENT**

Family Education Rights and Privacy Act (FERPA)

The method with which the University of Tennessee governs the distribution of student information is based on the Family Educational Rights and Privacy Act of 1974 or FERPA. This Act, as amended, established the requirements governing the privacy of student educational records in regards to the release of those records and access to those records. This Act is also known as the Buckley Amendment.

The Act gives four basic rights to students:

- the right to review their education records;
- the right to seek to amend their education records;
- the right to limit disclosure of personally identifiable information (directory information);
- and the right to notify the Department of Education concerning an academic institution’s failure to comply with FERPA regulations.

FERPA provides for confidentiality of student records; however, it also provides for basic identification of people at the University of Tennessee without the consent of the individual. Release of information to third parties includes directory information, such as contained in the campus directory, in the online web-based people directory and in sports brochures. Students are notified of their FERPA rights and the procedures for limiting disclosure of directory information in Hilltopics, at Orientation for new students, and on the website of the University Registrar, registrar.utk.edu.
Office of Diversity Programs
Travis Griffin, Program Director
301 Perkins Hall, Knoxville, TN 37996-2360
Telephone: 865-974-0625
engr.utk.edu/diversity

Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP)
The Tennessee Louis Stokes Alliance for Minority Participation (TLSAMP) is a partnership between Tennessee State University, LeMoyne-Owen College, Middle Tennessee State University, University of Memphis, University of Tennessee and Vanderbilt University. The program’s goal is to increase the number of under-represented minority students studying and graduating in Science, Technology, Engineering and Math (STEM).

The objectives to support the goal of the alliance are to:
• Recruit under-represented minority students to pursue science or engineering as a career;
• Improve the quality of the learning environment for under-represented minority science and engineering students at all schools; and
• Ensure that a large number of undergraduate students are prepared to enter graduate school.

Programs/Services
• TLSAMP Seminars
• Collaborative Learning
• Drop-In Center
• Graduate School Preparations
• Mentoring
• Undergraduate Summer Research
• Research Symposium
• Summer Bridge Program

Retention Efforts
• Financial Assistance
• Tutorial Programs/Services
• Strategies for Basic Skills Courses

National GEM Consortium
The Tickle College of Engineering is committed to outreach and retention efforts to increase the number of female engineering students. Today, more than ever, women are discovering the exciting opportunities and unique challenges in the engineering field. At UT, we encourage the interest of young women in the science, technology, engineering, and math (STEM) fields through outreach, pre-college programs, and mentoring and support during their college careers.

The college is proud of the act that the number of our female professors has increased to a total of 24, at present. The presence of accomplished women who serve as faculty members serves as inspiration for both students and for the junior female faculty who have recently joined the college.

Signature Programs/Services
• WomEngineers Welcome Dinner
• WomEngineers Day
• Mentoring Opportunities
• Student Organizations

Center for Career Development
Center for Career Development, located on the top floor of the Student Union, is a university-wide department designed to help students explore majors and related career fields, plan and implement career goals, prepare for a job search, conduct on-campus interviews, and identify additional employment opportunities and resources.

Services for Engineering students include:
Career Planning
• Research majors and careers on the Career Development website and in the Career Development Resource Center
• Find out “What I Can Do With This Major” – information on majors and careers throughout the college
• Take career assessments to assist with career exploration and career planning
• Meet with a Career Counselor to discuss your options or register for Exploring Majors and Careers, a one-credit course with a focus on choosing a major and learning about what’s available at UT

Career Resources
• Career Resource Center: review a collection of career books, periodicals, pamphlets, and videotapes with information on careers, job search skills, employment opportunities, and salary ranges
• Career Website: a variety of valuable career articles, resume and cover letter samples and links to hundreds of other career-related Internet resources
• Workshops: held each semester on resume writing, cover letters, job fair success, interviewing, etiquette, graduate school, and the new Life Skills Series focused on helping you prepare for independence and life after college
• Resume Critiques: Resumes can be dropped off for overnight critiques at the Center for Career Development or students can attend walk-in hours

Career Website
• National GEM Consortium
• Cooperative Education / Career Development

Career utk.edu
Tickle College of Engineering Career Consultant: Schedule an appointment with Travis Greenlee or Kertesha Riley, who work directly with engineering students, faculty, staff, and employers, by calling 865-974-5435 or e-mailing Trgreenlee@utk.edu or krliley6@utk.edu

1-4 p.m. Mondays, Tuesdays, and Thursdays and 9 a.m.-4 p.m. Wednesdays during fall and spring semester.

• Part-Time Employment Listings/Consultant: information on part-time positions for students both on and off campus
• Disability Careers Office: assists students with disabilities in career planning services and guidance
• HIRE-A-VOL at career.utk.edu: online job and resume database listing employment opportunities for part-time, summer, internships, and full-time for UT students and alumni

Career Events
• Annual Job Fairs: career fair opportunities to speak informally with representatives from hundreds of organizations about part-time and summer jobs, internships, and full-time positions
• On-Campus Recruiting & Interviewing: approximately 300 organizations conduct over 6,000 interviews annually at UT through Career Development
• Networking Sessions: conducted by employers throughout the year on opportunities within their organizations
• Special Engineering Career Events: Watch for these each semester!

Engineering Professional Practice
Todd Reeves, Director
110 Perkins Hall, Knoxville TN 37996-2030
Telephone: 865-974-5323
coop.utk.edu

Cooperative Education (Co-op) Program
Students have the opportunity to gain real world experience in their engineering field of study by working multiple semesters (normally three) with the same employer before they graduate.

Typically a co-op student will alternate between semesters of work and school beginning in their sophomore year. The exact co-op rotation plan is created by the student in coordination with the Engineering Professional Practice office, their academic advisor, and the needs of their particular co-op employer. Making use of the summer session to work assignments or classes enables the co-op experience to have minimal impact on a student’s planned graduation date.

Internship Program and Benefits
The internship program differs from co-op in that the students will only work one paid assignment with an employer, usually in the summer. While students can still gain valuable engineering experience in an internship, this shorter duration experience provides a subset of the total experience students obtain in the co-op program. Most employers recruit students for internship opportunities during a student’s junior year. Most engineering internships occur during the summer before the senior year.

Co-op and Internship Program Requirements
To participate fully in the Engineering Professional Practice program, students should register with the office during their freshman year. They will then have an opportunity to go through an in-depth orientation and advisement process, learn the steps to a successful job search, and be prepared to participate in our Engineering Expo each fall and spring semester to seek co-op and internship opportunities.

Though the specific GPA requirements for each opportunity will vary depending on the needs of the employers, most employers require a GPA of 3.0 or above. Before students go on their first assignment, they must complete 30 hours of course work and be in good academic standing.
Global Experiences

The University of Tennessee has embarked on an ambitious plan to help students gain the international and intercultural knowledge they need to succeed in today’s world. Engineering, like all professions, is becoming very globally oriented. It is important for you to take advantage of opportunities while you are a student in order to be Ready for the World. Apply for your passport now—the world awaits!

UT Programs Abroad Office (PAO)

Contact:
Center for International Education Programs Abroad Office 1620 Melrose Avenue, Knoxville, TN 37996-3531 Phone: 865-974-3177 Fax: 865-974-2985 Email: studyabroad@utk.edu

The “PAO” provides students with information about their options for overseas study, research, work, volunteer projects, and travel. The PAO administers most of UT’s international one-for-one student exchange programs, including ISEP. Attend an information session at the Programs Abroad Office (1620 Melrose Hall). Information sessions are held at 2:00 pm every Monday-Friday during the academic year. During the general information session, we discuss the programs available to you, what to look for in a program, how to use the resource center, using financial aid, transferring credits, program requirements, and will answer your questions. If you are unable to attend an information session due to a conflict at 2:00 pm, please contact our office and we will be glad to schedule an appointment for you (865-974-3177 or studyabroad@utk.edu).

Study Abroad for Engineering Students

Engineering study abroad programs allow you to stay one semester or one year abroad in an English speaking or foreign language-based schools throughout the world. You can choose between individual trips or pre-arranged trips, where you would live and travel with a small group of UT students. Prior to applying for an Engineering Study Abroad Program, you should schedule an advising session at the Tickle College of Engineering Advising Office. You are eligible to apply for the Study Abroad Program after freshman year or after the first semester at UT, if you are a transfer student. Most programs require a minimum 2.5 GPA for admission to the program. However, there are exceptions. UT Study Abroad programs include 15 types of programs: UT faculty-led, Exchange, Direct, Third Party, and Academic Internships.

Engineering Outreach Office

The Office of Engineering Outreach’s mission is to work with organizations across campus, throughout the community, and around the world to develop these “powerful learning opportunities” for engineering students. Through specialized coursework, opportunities to teach younger students, opportunities to be mentored by professionals, and study abroad, the outreach office seeks the continual development of our students’ sense of “engineering in the world.” Emphasis is also placed on student interaction with the next generation of potential engineering students, promoting their abilities as problem solvers and involved citizens.

Contact:
Kevin Kit, Director
Engineering Outreach Office and Honors
322 Perkins Hall
Phone: 865-974-9274
Email: kkit@utk.edu
Web: engr.utk.edu/study-abroad

Global Engineering Initiatives

The Tickle College of Engineering offers the opportunity for insight-abroad experiences for students for periods of a week to ten days, scheduled during school breaks. This enables the engineering major to have a short abroad experience without interrupting classes or delaying graduation. The flagship program for this initiative is the Engineering Alternative Spring Break, an annual trip to a foreign location to participate in an engineering project of local impact. On trips during other times of the year, engineering students may participate in a field-relevant service project in a foreign location, see engineers at work outside of the United States, or observe engineering applications and methods employed abroad. This may happen through a visit to an engineering university, lectures on specific engineering challenges, tours of a plant or manufacturing facility, or observations of pertinent engineering developments in locations overseas. Students will also visit sites of cultural and historic significance.

Although these programs are not credit-bearing, they satisfy the Honors’ “Global Experience” requirement and are a significant addition to a resume. A limited number of scholarships are offered to defray travel costs.

Contact:
Judith Mallory, International Coordinator
59 Perkins Hall
Phone: 865-974-9234
Email: jmallory@utk.edu
Web: engr.utk.edu/global

Grades, Credit Hours, and Grade Point Average

The basic unit of credit at UT Knoxville is the semester hour. This normally represents one hour of lecture or recitation or two hours of laboratory work per week.

Each course at the university carries a number of credit hours specified in the course description. The completion of each course, a student will be assigned a grade reflecting the student’s performance in the course. Passing grades carry a certain number of quality points per credit hour in the course. A student’s grade point average is obtained by dividing the number of quality points the student has accumulated at UT Knoxville by the number of hours the student has attempted at UT Knoxville, not including hours for which grades of I, NC, NR, P, S and W have been received.

Undergraduate Grades

<table>
<thead>
<tr>
<th>Grade</th>
<th>Performance Level</th>
<th>Quality Points Per Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Superior</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>Intermediate Grade</td>
<td>3.70</td>
</tr>
<tr>
<td>B+</td>
<td>Very Good</td>
<td>3.30</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>Intermediate Grade</td>
<td>2.70</td>
</tr>
<tr>
<td>C+</td>
<td>Fair</td>
<td>2.30</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>Unsatisfactory</td>
<td>1.70</td>
</tr>
<tr>
<td>D+</td>
<td>Unsatisfactory</td>
<td>1.50</td>
</tr>
<tr>
<td>D</td>
<td>Unsatisfactory</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>Unsatisfactory</td>
<td>0.70</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td>0.00</td>
</tr>
</tbody>
</table>

First Year Composition


International Students

Entering international students whose native language is not English are placed in English courses based on TOEFL scores. Advisors will assist students with English class placement.

ABC/No Credit Grading Scheme

This grading system does not include a grade for failure; instead, you receive an A, B, C, or NC (for “no credit”), depending on your performance in the course. The NC grade does not affect your GPA; it merely indicates that you need to re-enroll in the course for continued practice before moving to the next level.

Changes in Registration

Undergraduate students may add courses through the tenth calendar day counted from the beginning of classes fall and spring terms. Because of the nature of some courses, permission of the department head may be required to add a course after classes begin. Students may also, as departmental policies permit, change a section of a course through the add deadline.

Students may drop courses until the tenth calendar day from the start of classes with no notation on the academic record for full term courses in fall and spring. From the eleventh day until the eighty-fourth calendar day, students may drop courses and will receive the notation of W (Withdrawn) for full term courses in fall and spring. Following are additional regulations related to dropping classes after the tenth day:

• Students are allowed four drops during their academic career (until a bachelor’s degree is earned).
• Students holding a bachelor’s degree who return to pursue a second bachelor’s degree are allowed four additional drops.
• Students pursuing more than one major or degree simultaneously are not allowed additional drops.
• The W grade is not computed in the grade point average.
• After the 84th day, no drops are permitted.
• Courses may be dropped on the web (myutk.utk.edu).

Failure to attend a course is not an official withdrawal and will result in the assignment of a F grade.

The periods for add, drop, change of grading for sessions within the full term, summer, and mini term are determined based on a percentage of the equivalent deadline for the full term. See Timetable of Classes each term for exact dates on the MyUTK website at myutk.utk.edu. Deadline dates may be adjusted if the deadline falls on a holiday, weekend day or spring recess.

Grades catalog.utk.edu
Grades
catalog.utk.edu

Grades that do not influence Grade Point Average

The following grades carry no quality points and hours for which these grades are earned are not counted in computing a student’s grade point average.

• NC (No Credit) indicates failure to complete a course satisfactorily when taken on an S/NC basis.
• S (Satisfactory) is assigned for C or better work when a course is taken on an S/NC grading basis.
• W (Withdrawal) is assigned in courses when a student has officially withdrawn from the university. W is also assigned in courses when a student withdraws from a course between the 11th and 84th calendar day of classes. Regulations concerning withdrawal from courses or from the university appear under Changes in Registration.

Satisfactory/No Credit Grading System

The purpose of this system is to encourage the student to venture beyond the limits of those courses in which the student usually does well and, motivated by intellectual curiosity, explore subject matter in which performance may be somewhat less outstanding than work in other subjects. To this end, Satisfactory/No Credit (S/NC) grading has been developed for undergraduate courses (100-, 200-, 300 and 400-level courses).

• Neither grade is counted in a student’s grade point average, but, like all other grades, is entered on the permanent record.
• S is given for C or better work on the traditional grading scale and NC is given for grades of C-, D+, D, D- and F.
• The student only receives credit in the course if an S is received.
• A student may not repeat a course for S/NC if the student received a conventional grade (A, A-, B+, B, B-, C+, C, C-, D+, D, D- and F).
• The grade of I for incomplete work will be recorded as an Ii, which will not be computed in the average.
• A student is permitted to change the system of grading in a course through the add deadline.
• The changing of an S/NC grade to a conventional letter grade or vice versa is not permitted unless an error is determined by the Office of the University Registrar.

Repeating Courses

General Repeat Policy

Students who are struggling with a class should talk with their advisor before deciding whether to withdraw from and/or plan to repeat a class.

• Courses may be repeated twice, for a total of three attempts per course.
• A grade of W does not count as one of the three attempts.
• Exceptions to the number of times a course may be repeated will be allowed only with prior written permission from the head of the department where the course is being offered and the student’s college dean or designee.

Grade Replacement Policy for Three Lower Division (100-200 Level) Courses

• The first three lower-division (100-200 level) course grades may be repeated when a course is repeated.
• All other grades will be included in computing the cumulative grade point average.
• If the same course is repeated more than once, the additional repeat(s) will count toward the grade replacement total.
• Repeating a course in which an NC or a W grade has been earned does not count as one of the three grade replacements.
• The grade earned during the final attempt will be used in computing the cumulative GPA.
• All grades for all courses remain on the transcript.
• Transfer course grades cannot be replaced (see Transfer Admission policy).

One Stop Shop

Hodges Library Ground Floor
Knoxville, TN 37996-0200
Phone 865-574-1101
onestop@utk.edu

Aerospace Engineering
mabe.utk.edu

What is Aerospace Engineering?

Aerospace engineering uses the basic sciences and mathematics to develop the foundation for the design, development, production, testing and applied research associated with aerospace vehicles. These vehicles include aircraft, spacecraft and missiles. Auxiliary and propulsion systems are also an integral part of this education. These include guidance, control, environmental, layout, rocket, turbojet, turbo-fan and piston engine/propeller systems.

The educational objectives of the aerospace engineering program are:

• Graduates will meet or exceed the expectations of employers of aerospace engineers, such as industry, government, academia or non-governmental organizations.
• Graduates will continue professional development by participating in structured professional activities and/ or by obtaining professional registration or certification, post-graduate credits and/or advanced degrees.

Biomedical Engineering
mabe.utk.edu

What is Biomedical Engineering?

Biomedical engineering is the application of engineering principles and methods to the solution of problems in the life sciences. This broad field spans applications at the molecular level (genetic engineering); at the cellular level (e.g., cell and tissue engineering); and in intact organisms, including humans in particular. Mature practice areas include the design of biomedical measurement systems (e.g., intensive care monitoring stations); orthopedic devices (e.g., artificial joints); and artificial organs (e.g., artificial kidneys). Currently, there is much attention being given to computational biosciences, advanced medical imaging systems and advanced artificial organs (e.g., heart-assist and total artificial heart blood pumps, artificial livers). Among the most exciting new areas of biomedical engineering research is the newly defined discipline of cell and tissue engineering, which involves the modification of living cells and tissues to meet specific clinical needs (e.g., artificial skin).

In their professional roles, biomedical engineers must be knowledgeable in both the life sciences and the engineering sciences. In many career roles, biomedical engineers serve an intermediary role in bridging the gap between classically trained engineers and medical practitioners. Basic life science preparation includes the study of cell biology and human anatomy and physiology. The engineering preparation includes basic mechanics, electrical and electronic circuits, materials science, thermodynamics and fluid mechanics. Required mathematics include calculus, differential equations, matrix methods and statistics.

The educational objectives of the biomedical engineering program are:

• Graduates will meet or exceed the expectations of employers of biomedical engineers, such as industry, government, academia or non-governmental organizations.
• Graduates will continue professional development by participating in structured professional activities and/ or by obtaining professional registration or certification, post-graduate credits and/or advanced degrees.

Career Opportunities

The demand for air transportation is projected to increase many-fold early this century. Our renewed quest in space will accelerate as full realization is made of spin-off benefits to society. These endeavors will increase employment opportunities for aerospace engineers in the future. Graduates at UT are actively sought by industry and government aerospace organizations nationwide.

Major employers such as Boeing, Pratt and Whitney, NASA, General Electric, Honeywell, Lockheed-Martin, ATK and Arnold Engineering Development Center (which houses the largest wind tunnel test facilities in the world, located in Tullahoma, Tennessee) actively recruit our students.

Many of our BS students chose to continue their education at graduate school.

Career Information

What can I do with this engineering major?

The educational opportunities for biomedical engineers are:

• Graduates will meet or exceed the expectations of employers of biomedical engineers, such as industry, government, academia or non-governmental organizations.
• Graduates will continue professional development by participating in structured professional activities and/ or by obtaining professional registration or certification, post-graduate credits and/or advanced degrees.

Career Opportunities

Biomedical engineers work in a variety of settings including the biomedical product manufacturing industry, biomedical research and development organizations, hospitals (as clinical engineers), for governmental agencies (e.g., FDA, NASA, OSHA), and in biomedical product technical sales. Work in many of the more challenging technical areas (e.g., cell and tissue engineering) requires an advanced degree.
Biosystems Engineering
bioeng.ag.utk.edu

What is Biosystems Engineering?

Today’s tightly-focused engineering specialties would probably amaze the great engineers of the past. Many of them were successful precisely because they understood a diverse range of engineering concepts and could integrate that knowledge in new and startling ways.

Biosystems engineering is the most “integrative” engineering discipline available today. It combines elements from environmental, mechanical, civil, electrical and other engineering disciplines to produce the broadest possible engineering skill set. This engineering background is complemented with a focus on biologically-based systems-critical for solving problems involving people and the environment. Finally, biosystems engineering adds the peripheral skills needed to be successful in an engineering career-intensive design projects; computer and graphics training; presentation skills; engineering economics; and practical teamwork.

With this broad foundation, upper-level biosystems engineering students are uniquely positioned to focus on almost any area of engineering. Potential areas include biofuels; environmental systems; machine design and optimization; soil and water conservation; instrumentation and sensors; bio-reactors; food processing; waste treatment; or any of a host of other possibilities.

The BESS department’s program objectives: Recent graduates are to be

• competitive in seeking employment at the regional and national levels;
• aware of meeting their own and societal needs consistent with the goals of life-long learning, professional ethics and leadership;
• performing as entry-level engineers in a manner that positively reflects on the overall program’s reputation.

Career Opportunities

As a biosystems engineer, you can choose from an unusually diverse range of job opportunities. You will be well prepared to lead a team as a project engineer because of your broad engineering background. You could also choose to design products or processes in a variety of agricultural, manufacturing and service industries. You might consider working as a consultant, in product marketing, or for a management services firm. Government agencies and educational and research institutions also employ many biosystems engineers, or you may want to enhance your career by entering graduate or medical school. You will be particularly qualified to work at the interface of technology and living systems—whether in food and fiber production, environmental issues or in a biological context.

The objectives of the chemical and biomolecular engineering degree program are:

• Graduates of the chemical engineering program will meet or exceed the expectations of employers of chemical engineers;
• Qualified graduates will pursue graduate or advanced professional study if desired;
• Graduates will continue their professional growth through lifelong learning;
• Graduates will pursue career progression toward positions of technical or managerial leadership.

Career Opportunities

As a graduate of the chemical and biomolecular engineering program, you will be able to pursue a career in many different areas such as pharmaceuticals, textiles, electronics, energy and biotechnology. Chemical and biomolecular engineers can be found anywhere, from large manufacturing plants to small medical research laboratories. Many of our students also choose to continue their education at graduate or medical school.

Chemical and Biomolecular Engineering
cbe.utk.edu

What is Chemical and Biomolecular Engineering?

Chemical and Biomolecular engineering deals with developing industrial processes and systems used to manufacture products that require chemicals. Chemical and Biomolecular engineers play a very important role in the production of items we use every day such as foods, medicines, fuels and clothing. Some examples of chemical engineering include developing improved food processing techniques, producing medicines more affordably in large quantities, finding more efficient ways to refine petroleum, and constructing fibers that make clothing more comfortable and resistant to stains.

As a chemical and biomolecular engineering student at UT, you will learn how to design processes and equipment for reacting chemicals that will improve the way many items critical to today’s modern society are created. You will study the concepts of heat transfer, mass transfer, kinetics, and fluid flow to solve problems that may lead to the development of new medications, computing devices, fuels, plastics, and polymers vital to enhancing the quality of life around the globe.

Civil and Environmental Engineering
cce.utk.edu

What is Civil and Environmental Engineering?

Civil and environmental engineers plan, design, construct, and operate infrastructure that is essential to economic vitality and our modern way of life. They enhance our quality of life and provide valuable service to communities by protecting the health and safety of the public and by preserving our environment.

The roots of the department of Civil and Environmental Engineering at the University of Tennessee date back to 1838, making it one of the first Civil Engineering programs established in the Southeast. The department offers six proficiency areas, each preparing students for impactful and exciting careers.

• Environmental Engineers protect human health by providing safe drinking water to communities; designing processes and facilities for environmentally sustainable waste disposal; protecting air quality through emissions control technologies; remediating contaminated sites; and quantifying and managing risks to human health and the environment caused by pollution.

• Construction Engineering and Management is the process of delivering engineering projects safely, on time, and on budget through management of financial, material, and human resources on the job site.

• Geotechnical and Materials Engineers evaluate site-specific geological conditions to recommend foundation systems and soil modifications to enable successful civil engineering projects. They work on projects involving buildings, bridges, pavement systems, roadways, pipelines, tunnels, dams, and landfills.

• Structural Engineers design structural systems for buildings, bridges, and other structures using concrete, steel, wood, masonry, composite, and newly emerging materials. They ensure infrastructure is reliable under the effects of earthquakes. They also supervise the implementation of new structural systems and often work closely with other civil engineers when designing systems that move people and goods through our society.

• Transportation Engineers plan, design, and operate transportation systems that move people and goods through our society. Transportation engineers utilize policy, economics, and advanced technology to deliver transportation systems that are safe, economical, efficient, and sustainable.

• Water Resource Engineers evaluate the availability of water for urban, industrial, and agricultural activities; protect and restore rivers, streams, and aquatic ecosystems; control flooding; protect water quality in the environment; and manage the water cycle in urban environments through deployment of green infrastructure.

During your careers, our nation’s aging infrastructure will be extensively upgraded using new materials, the latest technology, emerging construction techniques and innovative financing mechanisms. Autonomous vehicles will transform our transportation system and create opportunity to reshape our communities. As the need for surface parking decreases there will be opportunities to reintroduce nature into our urban areas, to better manage our water resources, and to grow our food closer to where we live. As a civil and environmental engineer, you will be at the center of this infrastructure revolution.

We will prepare you to enter this exciting field at the University of Tennessee, Knoxville. Our program features hands-on learning through laboratories, real-world project-based learning, flexibility to develop technical expertise in areas that interest you, development of your communication and professional skills and opportunities for co-ops and internships, undergraduate research, study abroad, and leadership development. You’ll enter the work place ready to make an impact.

Career Opportunities

Civil and environmental engineers are employed by engineering and construction firms, industry, all levels of government, utilities, academia, among others. Typical career paths provide opportunities to work outside, to oversee a project from start to finish, to contribute to landmark infrastructure projects, to work internationally, to grow in leadership responsibilities, and to collaborate with clients, stakeholders, and the public to improve our communities.

Civil engineers often own their own businesses or volunteer their skills in developing countries. More than anything, civil and environmental engineering is a great profession for people who want to make a difference.
Software methods. The emphasis is on foundations and the process of selecting or writing the software for a network computer with parallel architecture. Another example to select or design software to solve a problem on a computer is the application of algorithms to a wide range of applications. Subject areas within electrical engineering are so diverse that it is not always apparent that there is an underlying connection. The range of subjects is not only broad but is also expanding. The program educational objectives of the electrical engineering program include:

- Will apply the knowledge of the fundamentals of electrical/computer engineering or in advanced professional studies; will identify, formulate and solve electrical/computer engineering problems.
- Will analyze and design complex devices and systems containing hardware and software components with consideration of economic, ethical, safety, environmental, and social issues; will be able to use modern engineering techniques, skills and tools.
- Will communicate effectively, function on multi-disciplinary teams, and engage in lifelong learning.

Career Opportunities

Computer hardware engineers are expected to have favorable job opportunities. Employment of computer hardware engineers is projected to increase faster than the average for all occupations, reflecting rapid employment growth in the computer and office equipment industry, which employs the greatest number of computer engineers. Consulting opportunities for computer hardware engineers should grow as businesses need help managing, upgrading and customizing increasingly complex systems. Growth in embedded systems, a technology that uses computers to control other devices such as appliances or cell phones, will also increase the demand for computer hardware engineers.

Career Information

What can I do with this engineering major?

Electrical Engineering

What is Electrical Engineering?

Electrical engineering deals with the application of the physical laws governing charged particles to design and build integrated circuits that contain millions of microelectronic devices, to high-speed fiber-optic communication systems that span international boundaries, electrical engineering impacts every aspect of modern-day living. Electrical engineering is unique among the engineering disciplines because of its wide range of applications. Subject areas within electrical engineering are so diverse that it is not always apparent that there is an underlying connection. The range of subjects is not only broad but is also expanding.

The program educational objectives of the electrical engineering program include:

- Will apply the knowledge of the fundamentals of engineering, science and mathematics in the practice of electrical/computer engineering or in advanced professional studies; will identify, formulate and solve electrical/computer engineering problems.

Career Opportunities

The growth trends for employment of electrical engineering graduates are expected to increase. Projected job growth stems from increased demand for electrical and electronic goods, including advanced communications equipment, computer communications, biomedical instrumentation, defense-related electronic equipment, and consumer electronics products. The need for electronics manufacturers to invest heavily in research and development to remain competitive and gain a scientific edge will provide openings for graduates who have learned the latest technologies.

Industrial Engineering

What is Industrial Engineering?

Industrial engineers design, install, improve, and control complex systems that integrate people, materials, information, finances, technology, and facilities. These systems could be broad, such as hospitals, factories or international supply chains, or focused, such as an assembly line or a customer experiences a service. Industrial engineers are problem solvers who use their skills with math, science, and engineering to solve difficult, multi-disciplinary problems. The primary design focus is on cost, time, quality, and flexibility distinguishes industrial engineering from other engineering disciplines. While other types of engineers design things, industrial engineers design the systems that enable those things to work effectively. The skills required for this field frequently lead to management and leadership positions.

Do you have the skills and interests of an industrial engineer? You may want to consider the following questions:

- Do you enjoy solving challenging problems with many working parts?
- Do you constantly think about how things could be improved?
- Do you like to have a plan?
- Are you strategic? Do you like to see the big picture?
- Do you enjoy taking the lead and guiding teams to the solution for a specific problem?
- Are you strongly motivated? Do you show initiative?
- Can you deliver a presentation to sell your point of view? If you answered yes to any of these questions, you may have what it takes to be an industrial engineer!

Students in the program gain hands-on experience and forge beneficial relationships with industry, business, and agencies through co-ops, internships, research, study abroad opportunities, clubs, professional organizations, etc. Students also have the opportunity to take advantage of the many labs in our department including the ideation lab (3-D printing, etching, simulation, etc.) and senior design lab.

The program prepares students to:

- Have successful professional careers that employ industrial and systems engineering concepts and principles
- Project future trends in learning
- Achieve positions of leadership

Career Opportunities

Industrial engineers have a range of career fields available, with wide-ranging applications:

- Manufacturing
- Healthcare
- Transportation
- Construction
- Retailing
- Entertainment
- Public services
- Finance
- Logistics and Supply Chain

In all areas, there is increasing emphasis on improving quality and productivity. Industrial engineers work closely with top management to achieve these goals. Industrial engineers commands competitive salaries in a strong market that is expected to grow by 10-15% in the long term. In spring 2016, 96% of graduates had post-graduation plans including full-time jobs, part-time jobs, and graduate education. The department provides one-on-one advising to support our students during the job search. We are committed to preparing our students for their career after graduation.

Computer Engineering

What is Computer Engineering?

Computer engineering deals with the electronic hardware side of electrical engineering, the programming side of computer science. Often, a student can study electrical engineering to cultivate a background in computer science. However, with the increasing needs of both industry and technology that drive our future, computer engineering has now become a discipline by itself. Typically, a computer engineering curriculum provides a background in three broad areas—hardware, software, and hardware-software integration. Students will also have the opportunity to explore fundamental topics such as microprocessors, computer architecture, digital signal processing, operating systems, data communications, and other related material. In addition, the program includes core engineering subjects that are common to all engineering disciplines. The program educational objectives of the computer engineering program include:

- Will apply the knowledge of the fundamentals of computer science.
- Will be able to integrate material and concepts from these areas.

Career Information

What can I do with this engineering major?

Computer Science

What is Computer Science?

At one pole is computer science, primarily concerned with theory, design, and implementation of software. It is a true engineering discipline, even though the product is as intangible as a computer program. At the other pole is computer engineering, primarily concerned with firmware (the microcode that controls processors) and hardware (the processors themselves, as well as entire computers). It is not possible to draw a clear line between the two disciplines; many practitioners function to at least some extent as both computer engineers and computer scientists. Computer Science is the study of software and hardware systems, and theory of computer science. Students must be able to integrate material and concepts from these areas. So, for example, students use analysis of algorithms to select or design software to solve a problem on a computer with parallel architecture. Another example would be selecting or writing the software for a network router, combinatorial optimization, graph algorithms, networking, knowledge of the hardware and professional software methods. The emphasis is on foundations and the ability to learn new developments in the field.
Materials Science & Engineering
mse.utk.edu

What is Materials Science and Engineering?
Materials Science and Engineering (MSE) is at the forefront of modern technological advances through the development and improvement of materials for applications in all engineering fields. It is one of the fastest growing engineering disciplines and is expected to remain a major contributor to progress in renewable energy, 3D printing, and next-generation electronics.

Materials engineers can be found working in all technological fields, usually as part of a multidisciplinary team. For this reason, materials engineers receive a broad education that includes design, mechanics, chemistry, physics, mathematics and electronics. The processing and testing of materials are core subjects in the MSE curriculum that stresses "hands-on" learning through laboratory classes that introduce students to modern processing and characterization techniques.

Modern engineering materials are used in a broad spectrum of products, including automobiles, aircraft and spacecraft, jet and rocket engines, surgical implant devices, computers, cell phones, optical displays, textiles and sports equipment. The types of engineering materials include metals and alloys, polymers and plastics, ceramics, semiconductors, and composites.

The educational objectives of the program for the degree of BS in Materials Science and Engineering are:

• to provide students with a knowledge of the fundamentals of appropriate physical and chemical sciences, mathematics and engineering sciences;
• to demonstrate the applications of these principles to solve engineering problems with emphasis on materials processing, structure, properties and performance. This knowledge base includes the development of analytical and experimental skills;
• to provide students with experiences in design and materials selection such that they can design components, systems or processes with consideration of economic, safety, environmental and social issues;
• to develop professional skills in such areas as written and oral communications, problem solving and working in diverse teams, that prepare graduates to practice materials engineering in contemporary and global environments;
• to provide students with a general education component that complements the technical content, encourages the appreciation of cultural and social values, exhibits the impact of engineering solutions on society, and enhances personal development.

The department has one of the lowest student-faculty ratios (about 6:1) in the college. This allows MSE students to receive a great deal of individual interaction with the faculty, especially in laboratory courses.

Career Opportunities
Graduates with a BS degree in materials science and engineering receive employment offers from a wide range of industries both in Tennessee and nationwide.

MSE graduates can be found working in many different capacities, including basic and applied research, product and process development, manufacturing, quality control, material selection, and failure analysis. Additionally, materials science graduates are well-prepared to continue their education through graduate school.

Mechanical Engineering
mabe.utk.edu

What is Mechanical Engineering?
Mechanical engineering is the application of the laws of solid and fluid mechanics and the thermal sciences to the analysis, design and/or manufacturing of systems and products. Mechanical engineers play a key role in national, state and local economies by bringing their expertise to the development of power generation systems (such as steam turbines, jet engines, and internal combustion engines) that provide mechanical power to all segments of society. They also bring essential expertise to manufacturing processes, efficient production methods and automation vital to the well-being of the national economy. Their expertise and involvement in the analysis, design and development of new products and materials for new devices and systems produce economic activity and provide employment opportunities which sustain high standards of living.

The mechanical engineering program at UT offers fundamental education in the engineering sciences and engineering design. The engineering science component educates students in the fundamental principles of engineering, while the engineering design component emphasizes design methodology, enhances creative skills, and develops student ability to solve open-ended problems of the type common to industry.

The undergraduate experience is broad-based and includes, in the first two years, general education in mathematics, sciences and preliminary design courses that are common with curricula in other engineering programs.

Career Opportunities
Because of the broad-based education received in mechanical engineering, mechanical engineers play a vital role in a wide variety of industries (e.g., aerospace, automotive, electronics, power utilities, chemical, petroleum, textile, manufacturing); federal agencies (e.g., NASA, DOE, DOD, FAA); and consulting firms and national laboratories (e.g., ORNL, SANDIA). In these different sectors, mechanical engineers are involved in analysis and design of systems and products; manufacturing, automation and control of production and processes; heating, ventilation, and air conditioning systems; and research. Mechanical engineers are also found at every level of management.

Mechanical engineers have been and will continue to be in great demand in all of the areas listed above.
Career Information
What can I do with this engineering major?

Nuclear Engineering
ne.utk.edu

What is Nuclear Engineering?
Nuclear engineering is the engineering discipline that focuses on the application of sub-atomic processes for the benefit of mankind and our environment. Radiological engineering is a special concentration within nuclear engineering that deals with the design and safe utilization of radiation in industry and medicine. Some examples of nuclear and radiological engineering are listed below:

- Production of electric power with essentially no air pollution
- Processes for the diagnosis and treatment of diseases such as cancer
- Activation analysis for identifying materials including environmental pollutants
- Radiography inspection of welds in bridges and boilers
- Food preservation and sterilization of medical supplies
- Radiotracer gauges for use in manufacturing processes
- Nuclear measurement techniques for oil well logging and airport security
- Radioactive tracer elements for use in medical research
- Generation of radioisotope power for deep space exploration

The educational objectives for the department are to:

- provide students with fundamental knowledge in mathematics, computer science, the basic sciences and the engineering sciences that are necessary to solve complex problems in nuclear and radiological engineering;
- provide students with a real-world design and analysis experience in nuclear and radiological engineering that includes environmental, societal, safety, and economic considerations;
- provide students with appropriate skills in oral and written communication, teamwork, laboratory work, problem solving, and the use of modern engineering tools that will prepare them to work productively in a contemporary and global environment;
- provide students with a diverse general education in the humanities, ethics, and social sciences to complement their technological education in order to understand and appreciate the importance of each in society and in personal development; and
- foster a genuine desire for life-long learning in students.

Career Opportunities
Nuclear engineering is a very broad and diverse engineering discipline, spanning from materials science and radiochemistry to nuclear security, space propulsion, and power systems. Nuclear engineering graduates find careers in a wide variety of fields, including the electric utility industry (e.g., Southern Nuclear Company, TVA, Duke Energy, Entergy), private industry (e.g., General Electric, Westinghouse, Honeywell, Emerson), and governmental laboratories (e.g., DOE’s Oak Ridge National Laboratory and NASA’s Johnson Space Flight Center).

Nuclear engineering graduates also work as health physicists and radiation safety officers at hospitals and other health-related facilities. The current job market for nuclear engineers is strong and diverse.
The following list shows an acceptable set of electives that may be taken to satisfy the upper division electives for the Computer Engineering major. The electives have been grouped into 7 suggested tracks. The tracks group related electives that a student may wish to take.

1. Digital Electronics

   - ECE 316, ECE 431, ECE 432, ECE 433, ECE 325, ECE 421 or 427, ECE 481 or 487, CS 425/528, CS 434/534, CS 445/545, CS 466/566, CS 483/583, ECE 459/559, ECE 461, ECE 462, ECE 469/569, ECE 471/571

2. Software

   - CS 365, 461, 465

3. Systems Engineering

   - ECE 451, 455

4. Scientific Computing

   - CS 420 or 427, 421 or 521, ECE 471, CS 425, 434, 445

5. Cybersecurity

   - Computer Science 493 and 494 may be taken to satisfy the upper division electives. Up to two (2) Computer Science 5xx or Electrical Computer Engineering 5xx courses may count as upper division electives.

6. Machine Learning & Artificial Intelligence

   - CS 340, CS 360, CS 370, CS 456, CS 465, CS 461, CS 462, CS 465, CS 525, CS 541, CS 560, CS 565, CS 581

7. Integrated Circuits

   - ECE 336, ECE 431, ECE 432, ECE 433, ECE 325, ECE 421 or 427, ECE 481 or 487, CS 425/528, CS 434/534, CS 445/545, CS 466/566, CS 483/583, ECE 459/559, ECE 461, ECE 462, ECE 469/569, ECE 471/571

The department requires at least a C in every computer engineering, computer science, electrical engineering, and mathematics course used for upper division credit or upper division electives.

Progression of departmental undergraduate students to the upper-division programs of the department is competitive and is based on the space available in the department. Factors considered in the decision include the overall grade point average, grades earned in courses required in the lower division curricula of the department and College of Engineering, and seriousness of purpose and interest in departmental programs as exemplified by regular and orderly progress through the prescribed curriculum without abuse of withdrawal and course repeat privileges.

Students who take ECE 300 (ECE 201-202) will be evaluated during the semester they are registered for it. Transfer students for whom ECE 300 (ECE 201-202) transfer credit is given may take 9 semester hours in departmental courses in the upper division.

Students also have an option for an Honors Concentration for an upper division program. See the Undergraduate Catalog for details on how to apply.

**UIC Track Information:**

- Fall: 16 hours
- Winter: 15 hours
- Spring: 17 hours
- Summer: 16 hours

**FALL TRACKS:**

**Term 1 (16 hours)**

- School of Computer Science
  - CS 102 (4) FA, SP
  - CS 140 (4) FA, SP
- School of Electrical Engineering
  - ECE 201 (3) FA, SP, SU
- School of Geography
  - GE 152 or 158 (4) FA, SP, SU
- School of Management and Economics
  - ECE 313 or 317 (3) FA, SP

**Term 2 (15 hours)**

- School of Computer Science
  - CS 302 or 307 (4) FA, SP
- School of Electrical Engineering
  - ECE 401 (2) FA, SP
- School of Geography
  - GE 151 or 157 (4) FA, SP
- School of Management and Economics
  - ECE 453, ECE 455, ECE 461, ECE 462, ECE 463, CS 530, ECE 553, ECE 555, ECE 556

**TERM 3 (15 hours)**

- School of Computer Science
  - CS 311 or 317 (3) FA, SP
- School of Electrical Engineering
  - ECE 315 (3) FA, SP, SU
- School of Geography
  - GE 151 or 157 (4) FA, SP
- School of Management and Economics
  - ECE 316, ECE 415, ECE 416/417, ECE 341 or 347, ECE 342, ECE 441, ECE 442, ECE 443 ECE 463

**TERM 4, 5, AND 6 (15 hours)**

- School of Computer Science
  - CS 340 (3) FA, SP
- School of Electrical Engineering
  - ECE 300 (ECE 201-202) 16 hours
- School of Geography
  - GE 152 or 158 (4) FA, SP

**TERM 7 THROUGH 9 (15 hours)**

- School of Computer Science
  - CS 401 (2) FA, SP
- School of Electrical Engineering
  - ECE 402 (2) FA, SP
- School of Geography
  - GE 151 or 157 (4) FA, SP
- School of Management and Economics
  - ECE 459/559, ECE 461, ECE 462, ECE 469/569
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**Industrial Electives chosen from**: ENGL 102, 132, 290, 298; ENGL 101 or ENGL 118; ESL 198; 298; CHEM 120, 128; CBE 201; PHYS 136, 138; ECE 301; BCMB 230; BIOL 160 or 168; BME 409; CBE 475; EF 333; any MSE course; ME 321; NE 483, NE 484; other 300 or 400 level science or engineering courses as approved by academic advisor and department head.

*MSE 4XX Electives—
Graduation in materials science and engineering requires a minimum grade point average of 2.0 for all departmental courses.

Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements.

**Engineering Science Electives** chosen from: CSCI 203, MSE 201, MSE 207, MSE 202 and (ECON 203 or ECON 200; MSE 303; MSE 305; MSE 307; MSE 309; MSE 311; MSE 313; MSE 315; MSE 320; MSE 342; MSE 347; 2 credit hours of ENGL 331). Some courses may require a prerequisite or corequisite that is not part of the IE program.

Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements.

**Materials Science and Engineering Catalog 2018**

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*MSE 4XX Electives—
Graduation in materials science and engineering requires a minimum grade point average of 2.0 for all departmental courses.

Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements.

**Engineering Science Electives** chosen from: CSCI 203, MSE 201, MSE 207, MSE 202 and (ECON 203 or ECON 200; MSE 303; MSE 305; MSE 307; MSE 309; MSE 311; MSE 313; MSE 315; MSE 320; MSE 342; MSE 347; 2 credit hours of ENGL 331). Some courses may require a prerequisite or corequisite that is not part of the IE program.

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### Materials Science and Engineering Catalog 2018

#### BIOMATERIALS CONCENTRATION

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<th>Fall 16 hours</th>
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### NANOMATERIALS CONCENTRATION

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### Upper Division Status

A lower division student formally applies for upper division status after completing 50 hours of lower division course work and obtaining an overall GPA of at least 2.4. More information is available at http://catalog.utk.edu/upperdivisionstatus.html.
Engineering Majors

Nuclear Engineering Catalog 2018

catalog.utk.edu

Mechanical Engineering Catalog 2018

catalog.utk.edu

Full Year Fall Math 141 or 147 (4) EF 105 or CS 102 Prereq- English 102, 132, 290 or 298 ECON 201 or 207 (4) FA, SP, SU EF 105 Term 6 through 8 background Math 130 Prereq- Math 142 or 148 NE 360 (4) FA Coreq- Math 141 or 147 and Prereq- NE 471 Prereq- Physics 232 Arts & Humanities 300 level or above AE, BME, ME ME 344 (3) Math 130 or higher EF 151/157 or EF 152/158 or Physics 136/138 ME 202 or CS 102 or MSE 201 No Milestones Social Science Term 5 Gen Ed (3) EF 151 or 157 (4) FA, SP Prereq- Math 142 or 148 Prereq- ME 202 with C or better Math 231 or 237 (3) F Mathematics 130 or higher EF 151/157 or EF 152/158 or Physics 136/138 ME 202 or CS 102 or MSE 201 No Milestones Nuclear Engineering Catalog 2018
Fall Math 141 or 147 (4) FA, SP, SU EF 151 or 157 (4) FA, SP EF 105 (1) FA, SP Chem 120 or 128 (4) FA, SP, SU EF 151 or 157 (4) FA, SP EF 105 (1) FA, SP EF 152 or 158 (4) FA, SP, SU ME 202 (2) FA, SP, SU Gen Ed (3) FA, SP, SU English 102 or 290 or 298 or 132 (3) FA, SP, SU Transfer Students Students transferring more than 26 hours from another institution are considered transfer students. Transfer students must meet the same criteria as non-transfer students, using transfer grades for acceptable substitutions. Transfer courses with grades below a C will not be accepted to fulfill any degree requirements. Departmental Academic Standing The faculty of the Department of Mechanical, Aerospace and Biomedical Engineering expect all students to make progress toward graduation. To graduate from the department, a student must earn a minimum of 120 credits with a GPA of at least 2.0. In addition, the University Academic Good Standing Policies apply to all students. ME Graduation Requirements A lower-division student may apply for progression to upper division after completing EF 152/158, CHEM 120/128, MATH 231, ME 202, ME 231 and ME 321 with a grade of C or better in each, and an overall GPA of at least 2.5. Provisional Status Progression: Students who have completed CHEM 120/128*, CHEM 130/138*, MATH 141/147*, MATH 142/148*, MATH 231/237, EF 151/157*, EF 152/158*, and PHYS 231* with a grade of C or better in each, and an overall GPA of at least 2.0 may apply for provisional status. Transfer students with grades below a C will not be accepted to fulfill any degree requirements. Students also have opportunities for an Honors Concentration and/or a five year BS/MS program. See the Undergraduate Catalog for details and requirements. Full Year Fall Math 141 or 147 (4) EF 105 or CS 102 Prereq- Math 119; recommended English 101 Regular; 118 Honors; 198 Chancellor Honors Only; or AP 101 credit Spring Math 142 or 148 (4) FA, SP, SU EF 152 or 158 (4) FA, SP, SU ME 202 (2) FA, SP, SU Gen Ed (3) FA, SP, SU English 102, 132, 290 or 298 (3) FA, SP, SU Fall Math 142 or 148 (4) FA, SP, SU EF 152 or 158 (4) FA, SP, SU ME 202 (2) FA, SP, SU Gen Ed (3) FA, SP, SU English 102, 132, 290 or 298 (3) FA, SP, SU Fall Math 141 or 147 (4) EF 105 or CS 102 Prereq- Math 119; recommended English 101 Regular; 118 Honors; 198 Chancellor Honors Only; or AP 101 credit Spring Math 142 or 148 (4) FA, SP, SU EF 152 or 158 (4) FA, SP, SU ME 202 (2) FA, SP, SU Gen Ed (3) FA, SP, SU English 102, 132, 290 or 298 (3) FA, SP, SU Fall Math 141 or 147 (4) EF 105 or CS 102 Prereq- Math 119; recommended English 101 Regular; 118 Honors; 198 Chancellor Honors Only; or AP 101 credit Spring Math 142 or 148 (4) FA, SP, SU EF 152 or 158 (4) FA, SP, SU ME 202 (2) FA, SP, SU Gen Ed (3) FA, SP, SU English 102, 132, 290 or 298 (3) FA, SP, SU
Students will want to verify with the medical schools of professions advisor on a regular basis in 313 Ayres Hall. Students are strongly urged to consult with a health requirements for most medical schools. Pre-medical that the courses listed above constitute the minimal

Note that many of these courses have prerequisites and

The following courses are not required by medical schools, should continue to consult with the pre-medical advisors in

When a student declares a major, he/she should obtain

All Pre-Health Advising takes place in the

Pre-Health Information

students on the distribution list are routinely updated about

to request to be added to the pre-health distribution list.

Alpha Epsilon Delta

Alpha Epsilon Delta (AED) is a pre-health honor society that seeks to provide information and opportunities for students with an interest in the health professions. The

Selection Criteria at UT Health Science Center

1. Successful completion of the pre-medical requirements with grades of C or better earned in each course.

2. Letters of evaluation from three faculty members who have a good awareness of the student's ability.

3. Experience in/exposure to the health field.

4. Total academic performance, with attention given to course content and load, test performance, and general commitment to scholarship.

5. Satisfactory scores on the Medical College Admission Test (MCAT).

6. Personal interview with two members of the Committee on Admissions. (Competitively qualified applicants will be invited for interviews after their applications have been reviewed by the committee.)

7. Other criteria such as extracurricular activities; motivation and goals; research experience; the morals, character, and integrity of the individual; and any disciplinary or civil records that a person may have accrued.

Please note that high GPA and MCAT scores are not by themselves a sure entrance into medical school. The Committee on Admissions takes a close look at the total experience of the applicant in making its final decisions. In addition, the Committee on Admissions reserves the right to require additional course work from any applicant. Correspondence course work must be approved prior to scheduling.

Professional File

During the junior year, pre-med students should attend a pre-professional file group meeting to learn about setting up the pre-professional file. Group meetings are scheduled weekly in Arts and Sciences Advising Services, 313 Ayres Hall. In the meeting, students are given information on pre-professional evaluations, AMCAS, and other aspects of the medical school application process. The most important aspect of the file is the letters of evaluation from faculty members who are familiar with the student's aptitude, ability, and personal characteristics. Two of the evaluations should come from faculty members teaching in science-based disciplines. Students should make every effort to be prepared with their professors prior to requesting the evaluations. Once the file has been started, students should maintain contact with the health professions assistant to periodically check on the file and to provide updated contact information. For the purposes of AMCAS, the file prepared in Arts & Sciences is considered a letter packet, and the primary contact for the packet is the chair of the health professions, Shanna Pendergrass.

GPA

GPA Maintain a 3.4 cumulative GPA. (Some programs also require an average 3.4 GPA in all courses in your major. Refer to the Undergraduate Catalog for details.)

Breadth

An honors student is expected to broaden their under-graduate experience beyond a prescribed curriculum. Cook Grand Challenge Honors Program/Honors Concentration students must satisfy two of the Five National Academy of Engineering (NAE) Grand Challenge Scholars requirements listed below. One of these must be at an Intermediate level and the other at an Introductory level. For more information visit the website at www.orl.gov

For more honors and research information, contact:

Kevin Kit
Engineering Honors Director
322 Perkins Hall
865-974-9874
kkf@utk.edu

Office of Undergraduate Research
Marisa Moazen
1534 White Ave.
865-974-8560
ugresearch.utk.edu

Cook Grand Challenge Honors Program

National Scholarships and Fellowships

The Office of National Scholarships and Fellowships exists to both inform and mentor students who wish to apply for nationally competitive scholarships and fellowships like the Trump, Rhodes, Marshall or Fulbright. We also assist outstanding undergraduates who wish to apply for Rotary Ambassadorial, Goldwater and Udall Scholarships.

The Office of National Scholarships and Fellowships will work with students to determine what fellowship would best fit their interests. Once students have decided to apply, we will assist them with the application process. To apply for most scholarships administered by our office, students need to begin the application process over a year before the scholarship period begins.

For more about each of the scholarships handled by the Office of National Scholarships and Fellowships, visit on 317 Greve Hall or call 865-974-3518 to schedule an appointment.

ORNL Summer Research and Internship

There exist numerous opportunities for undergraduates to supplement their academic learning with real world experience. The Chancellor’s Office and Oak Ridge National Laboratory (ORNL) each sponsor summer internship programs designed to promote research and creative activity among undergraduate students. The Department of Energy’s laboratories each sponsors summer and semester length opportunities.

The role of the faculty mentor is paramount in these programs as they will provide guidance in the choice of a project and in the practice of professional approaches and methods. Projects proposed may be a student’s undergraduate thesis, a part of the faculty mentor’s research program, another research project or an ongoing project begun previously. The key is that the student be involved in actual scholar work independent of a classroom setting.

For more information visit the website at www.ornl.gov

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ugresearch.utk.edu

Cook Grand Challenge Honors Program

Admission

Admission as a first year student to the Cook Grand Challenge Honors Program and Honors Concentrations by invitation, which is extended by the engineering dean’s office to students meeting rigorous academic standards in their high school coursework.

Admission as a transfer student or after completing significant coursework at the University of Tennessee is by direct application at honors.engr.utk.edu/admission.

Requirements

Coursework

• Four 100- or 200-level honors courses (14 hours minimum, at least two courses in Engineering Fundamentals, Physics, Math, Chemistry, or Biology, Statistics or MSE 207).

• Two upper-division honors courses (300 or 400 level) in your major (6 hours minimum)

GPA

GPA Maintain a 3.4 cumulative GPA. (Some programs also require an average 3.4 GPA in all courses in your major. Refer to the Undergraduate Catalog for details.)

Breadth

An honors student is expected to broaden their under-

Additional Opportunity for Engineering

Identify Engineering Honors Students

The Grand Challenge Scholars Program is for students who wish to build a broad level of experience in all the NAE areas into their undergraduate program. It requires one extensive experience, two intermediate experiences, and two introductory experiences. A qualified research experience must be related to one of the 14 NAE Grand Challenges.

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Cook Grand Challenge Honors Program

Breadth Requirement Experience Levels for Honors Concentration

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<th>Extensive</th>
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<th>Introductory</th>
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<tr>
<td>Research</td>
<td>Completion of a three-semester-long undergraduate research experience. Must result in a mentor-approved paper or poster which is presented at EURECA, UT Honors Symposium, or other venue approved by the Honors director.</td>
<td>Completion of a three-semester-long undergraduate research experience. Must result in a mentor-approved paper or poster which is presented at EURECA, UT Honors Symposium, or other venue approved by the Honors director.</td>
</tr>
<tr>
<td>Interdisciplinary Work</td>
<td>Minimum of 9 hours from approved list (see Honors website)</td>
<td>Minimum of 6 hours from approved list (see Honors website)</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>Minimum of 9 hours from Minor in Entrepreneurship (see Honors website)</td>
<td>Minimum of 6 hours from Minor in Entrepreneurship (see Honors website)</td>
</tr>
<tr>
<td>Global Experience</td>
<td>Full semester abroad (study program of internship) or 6 hours coursework abroad and a foreign language minor</td>
<td>6 hours coursework abroad and a foreign language minor</td>
</tr>
<tr>
<td>Service Learning</td>
<td>An extensive experience in service learning would normally be designed by the student and approved by the Honors director to reflect individual student interests.</td>
<td>Minimum of 6 hours from TCE design course associated with the Smart Cities Initiative, other courses carrying UT service designation or at least 6 months providing technical service for a non-profit organization (see Honors website)</td>
</tr>
<tr>
<td></td>
<td>Minimum of 3 hours from TCE design course associated with the Smart Cities Initiative, other courses carrying UT service designation or at least 3 months providing technical service for a non-profit organization (see Honors website)</td>
<td>Minimum of 3 hours from TCE design course associated with the Smart Cities Initiative, other courses carrying UT service designation or at least 3 months providing technical service for a non-profit organization (see Honors website)</td>
</tr>
</tbody>
</table>

The departmental honors concentrations require one intermediate experience and one introductory experience.

Honors website: honors.engr.utk.edu

Integrated Business & Engineering Program

Integrate business and engineering concepts in your education with the Integrated Business & Engineering Program (IBEP). This program combines the knowledge and reputations of two of the University of Tennessee, Knoxville’s outstanding academic colleges—the Haslam College of Business and the Tickle College of Engineering.

Integrated Business & Engineering Program
Are you interested in learning how engineering interacts with business functions in industry? Do you want to be part of a program that blends business and engineering concepts? The Integrated Business & Engineering Program (IBEP) offers a unique opportunity to students interested in the fields of engineering and business.

Admissions criteria: An admissions committee, made up of members from both the Haslam College of Business and the Tickle College of Engineering, will evaluate students during the spring of their first-year.

Inaugural IBEP Cohort, 2018

Program highlights:
- Tickle students participating in IBEP will:
  • Receive an IBEP program scholarship package
  • Attend distinguished alumni and leadership seminars
  • Combine in-depth strategy and decision making processes
  • Tour manufacturing facilities
  • Apply learning with joint business and engineering real world and CAPSTONE projects
  • Receive individual mentorship with executives

Admissions considerations:
- Info sessions will be held during the fall and spring semesters
- No special math or science coursework is required

Learn more:
- integrate.utk.edu
- integrate@utk.edu

Inaugural IBEP Cohort, 2018

Inaugural IBEP Cohort, 2018

Inaugural IBEP Cohort, 2018
### Advanced Placement

<table>
<thead>
<tr>
<th>Subject</th>
<th>AP Score</th>
<th>Credit Given</th>
</tr>
</thead>
<tbody>
<tr>
<td>American History</td>
<td>4 or 5</td>
<td>History 221-222</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>Biology 101</td>
</tr>
<tr>
<td>Biology</td>
<td>4</td>
<td>Biology 101-102</td>
</tr>
<tr>
<td>Biology</td>
<td>5</td>
<td>Biology 101-102 and 160</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>3</td>
<td>Math 125</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>4</td>
<td>Math 141</td>
</tr>
<tr>
<td>Calculus AB</td>
<td>5</td>
<td>Math 147</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>3</td>
<td>Math 141</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>4</td>
<td>Math 141-142</td>
</tr>
<tr>
<td>Calculus BC</td>
<td>5</td>
<td>Math 147-148</td>
</tr>
<tr>
<td>Chemistry</td>
<td>4 or 5</td>
<td>Chemistry 120-130</td>
</tr>
<tr>
<td>Chinese Language and Culture</td>
<td>4 or 5</td>
<td>Chinese 131-132</td>
</tr>
<tr>
<td>Computer Science A</td>
<td>5</td>
<td>Computer Science 102</td>
</tr>
<tr>
<td>Economics - Microeconomics</td>
<td>3, 4, or 5</td>
<td>Economics 211</td>
</tr>
<tr>
<td>Economics - Macroeconomics</td>
<td>3, 4, or 5</td>
<td>Economics 213</td>
</tr>
<tr>
<td>English Language &amp; Composition</td>
<td>4 or 5</td>
<td>English 101</td>
</tr>
<tr>
<td>English Literature &amp; Composition</td>
<td>4 or 5</td>
<td><em>Students admitted fall 2016, credit for English 101</em></td>
</tr>
<tr>
<td>Environmental Science</td>
<td>3</td>
<td>Geology 201</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>4 or 5</td>
<td>Geology 201-202</td>
</tr>
<tr>
<td>European History</td>
<td>4 or 5</td>
<td>History LD-242 (Culture and Civilization)</td>
</tr>
<tr>
<td>French Language and Culture</td>
<td>3</td>
<td>French 211-212</td>
</tr>
<tr>
<td>French Language and Culture</td>
<td>4 or 5</td>
<td>French 212-333</td>
</tr>
<tr>
<td>German Language and Culture</td>
<td>4 or 5</td>
<td>German 211-212 or 311-312</td>
</tr>
<tr>
<td>German Language and Culture</td>
<td>3</td>
<td>German 211-212</td>
</tr>
<tr>
<td>Government and Politics - US Exam</td>
<td>2014 exams and prior, 3.4, or 5; 2015 and later, 4 or 5</td>
<td>Political Science 101</td>
</tr>
<tr>
<td>Government and Politics - US Exam</td>
<td>2014 exams and prior, 3.4, or 5; 2015 and later, 4 or 5</td>
<td>Political Science 102</td>
</tr>
<tr>
<td>Human Geography</td>
<td>4 or 5</td>
<td>Geography 121</td>
</tr>
<tr>
<td>Latin</td>
<td>3, 4, or 5</td>
<td>Classics 251-252</td>
</tr>
<tr>
<td>Music Theory - Aural Subscore</td>
<td>4</td>
<td>Music Theory 130</td>
</tr>
<tr>
<td>Music Theory - Aural Subscore</td>
<td>5</td>
<td>Music Theory 130, 140</td>
</tr>
<tr>
<td>Music Theory - Nonaural (written) Subscore</td>
<td>4</td>
<td>Music Theory 110</td>
</tr>
<tr>
<td>Music Theory - Nonaural (written) Subscore</td>
<td>5</td>
<td>Music Theory 110, 120</td>
</tr>
<tr>
<td>Physics I</td>
<td>4 or 5</td>
<td>Physics 221</td>
</tr>
<tr>
<td>Physics II</td>
<td>4 or 5</td>
<td>Physics 222</td>
</tr>
<tr>
<td>Physics C - E &amp; M</td>
<td>5</td>
<td>Physics 136</td>
</tr>
<tr>
<td>Physics C - E &amp; M</td>
<td>4</td>
<td>Physics 102 or 222 or 231</td>
</tr>
<tr>
<td>Physics C - Mechanics</td>
<td>5</td>
<td>Physics 135</td>
</tr>
<tr>
<td>Physics C - Mechanics</td>
<td>4</td>
<td>Physics 101 or 161 or 221</td>
</tr>
<tr>
<td>Psychology</td>
<td>3, 4, or 5</td>
<td>Psychology 110</td>
</tr>
<tr>
<td>Spanish Language or Literature</td>
<td>3</td>
<td>Spanish 211-212</td>
</tr>
<tr>
<td>Spanish Language or Literature</td>
<td>4</td>
<td>Spanish 212 and 300</td>
</tr>
<tr>
<td>Spanish Language or Literature</td>
<td>5</td>
<td>Spanish 300 and 305</td>
</tr>
<tr>
<td>Statistics</td>
<td>4 or 5</td>
<td>Statistics 201</td>
</tr>
<tr>
<td>World History</td>
<td>4 or 5</td>
<td>History 261-262</td>
</tr>
</tbody>
</table>

### International Baccalaureate

<table>
<thead>
<tr>
<th>Subject</th>
<th>AP Score</th>
<th>Credit Given</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology (higher level)</td>
<td>5+</td>
<td>Biology 101-102</td>
</tr>
<tr>
<td>Chemistry (higher level)</td>
<td>5+</td>
<td>Chemistry 120-130</td>
</tr>
<tr>
<td>Computer Science</td>
<td>7</td>
<td>Computer Science</td>
</tr>
<tr>
<td>English (A1 exam)</td>
<td>5</td>
<td>English 101</td>
</tr>
<tr>
<td>English (A1 exam)</td>
<td>6+</td>
<td>English 101-102</td>
</tr>
<tr>
<td>English (A2 and B exam)</td>
<td>N/A</td>
<td>No credit</td>
</tr>
<tr>
<td>Environmental Systems and Societies (standard level)</td>
<td>4+</td>
<td>Geology 202</td>
</tr>
<tr>
<td>Film (higher level)</td>
<td>5+</td>
<td>Cinema Studies LD</td>
</tr>
<tr>
<td>French (standard level)</td>
<td>5+</td>
<td>French 212</td>
</tr>
<tr>
<td>French (higher level)</td>
<td>5+</td>
<td>French 212, 333</td>
</tr>
<tr>
<td>Geography</td>
<td>4+</td>
<td>Geography 121</td>
</tr>
<tr>
<td>German (standard level)</td>
<td>4</td>
<td>German 211-212</td>
</tr>
<tr>
<td>German (higher level)</td>
<td>4+</td>
<td>German 211-212 or 311-312 or 321-322</td>
</tr>
<tr>
<td>History (higher level)</td>
<td>4+</td>
<td>History LD-LD</td>
</tr>
<tr>
<td>Informational Technology in a Global Society</td>
<td>4+</td>
<td>Geography 111</td>
</tr>
<tr>
<td>Latin (standard level)</td>
<td>5+</td>
<td>Latin 251-252</td>
</tr>
<tr>
<td>Latin (higher level)</td>
<td>4+</td>
<td>Latin 251-252</td>
</tr>
<tr>
<td>Math (higher level)</td>
<td>4+</td>
<td>Mathematics 141-142 plus 4 hours LD Math Credit</td>
</tr>
<tr>
<td>Music (solo performance, music creating music group performance)</td>
<td>6+</td>
<td>Musicology 110</td>
</tr>
<tr>
<td>Philosophy (higher level)</td>
<td>4+</td>
<td>Philosophy 101</td>
</tr>
<tr>
<td>Physics (higher level 1)</td>
<td>4+</td>
<td>Physics 221</td>
</tr>
<tr>
<td>Physics (higher level 2)</td>
<td>4+</td>
<td>Physics 222</td>
</tr>
<tr>
<td>Psychology (standard or higher level)</td>
<td>4+</td>
<td>Psychology 110</td>
</tr>
<tr>
<td>Social and Cultural Anthropology</td>
<td>4+</td>
<td>Anthropology 130</td>
</tr>
<tr>
<td>Spanish (higher level)</td>
<td>4+</td>
<td>Spanish 211-212</td>
</tr>
<tr>
<td>Sports, Exercise &amp; Health Science (higher level)</td>
<td>5+</td>
<td>Kinesiology LD (3 credit hours)</td>
</tr>
<tr>
<td>Theatre (higher level)</td>
<td>4+</td>
<td>Theatre 100 and Theatre LD</td>
</tr>
<tr>
<td>Visual Arts (higher level)</td>
<td>5+</td>
<td>Art LD</td>
</tr>
<tr>
<td>World Religions (standard level)</td>
<td>4+</td>
<td>Religious Studies LD</td>
</tr>
</tbody>
</table>
Freshman Math Placement
Based on ACT Math or SAT Math Placement Scores

<table>
<thead>
<tr>
<th>Math ACT</th>
<th>Math SAT taken before March 2016</th>
<th>Math SAT taken after March 2016</th>
<th>Math Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>570</td>
<td>590</td>
<td>Math 130 Pre Calculus</td>
</tr>
<tr>
<td>28</td>
<td>630</td>
<td>650</td>
<td>Math 141 Calculus 1</td>
</tr>
<tr>
<td>32</td>
<td>720</td>
<td>750</td>
<td>Math 147 Honors Calculus 1</td>
</tr>
</tbody>
</table>

Adjustments to Placement:
1. AP credits in Math or Dual Enrollment credits in Math trump the ACT Math/SAT Math placements.
2. Take the equivalent of Math 130 at a local community college or at UT in the summer prior to classes starting in the Fall.
3. Take an online placement test through the Math Department website (www.math.utk.edu). There will be two tests, one for attaining Math 130 (Level 3) and one for attaining Math 141 (Level 4). Engineering students take the test for Math 141. The test maybe repeated 3 times. Use the online remediation system to review, and then (re)take the placement test. The system is adaptive to the math elements needed for success.

Engineering Math courses
Students must be taking Math 141 or higher to be eligible for Engineering Fundamentals 151/157.

Placement Exams/MATH

First-Year Composition Placement
1. Regular Sequence: English 101 (Fall) + English 102 (Spring). Students may not take English 102 before passing English 101.
3. Honors Sequence: English 118 (Fall) + 200-level English course or English 355 (Spring). Students placed into 118 by ACT or SAT scores—see below. Not for Chancellor’s Honors Program students. (Note: students who get a passing grade of B- or below in English 118 must take English 102 in Spring).
4. Chancellor’s Honors Sequence: English 198 (Fall) + English 298 (Spring). Limited to students in the Chancellor’s Honors Program.
5. AP Credit Sequence*: Credit for 101 through AP score + Choice of either English 290 or English 102 (Fall or Spring).

*AP Credit: A score of 4 or 5 on either the College Board Advanced Placement Test in Literature and Composition or the Language and Composition exam gives credit for English 101 only. Students must take English 290 or English 102 to complete the First-Year Composition requirement.

Note: CLEP credit is not accepted for the First-Year Composition requirement.

International Students/Non-Native English Speakers

<table>
<thead>
<tr>
<th>ACT Scores</th>
<th>SAT Scores</th>
<th>Fall Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 19-28 &amp; Composite 19-28</td>
<td>Verbal 450-680 &amp; Composite 850-1280</td>
<td>English 101 (Strongly recommend English 103 for students who want or need additional help)</td>
</tr>
<tr>
<td>At or above 29 English &amp; 29 Composite</td>
<td>Above 680 Verbal &amp; 1280 Composite</td>
<td>English 118 (Offered only in Fall)</td>
</tr>
</tbody>
</table>

FOREIGN LANGUAGE – Not Required in Engineering
Students can take a foreign language assessment as part of the Pre-Orientation steps. The College of Engineering does not require the study of foreign language to earn a diploma. However, intermediate (200 level) foreign language sequence satisfies the University’s General Education area of Cultures and Civilizations.

Students interested in earning intermediate foreign language credits in Spanish, French, German or others, contact:
Douglas W. Canfield
Modern Foreign Language Department
Room 7 Alumni Memorial Building
865-974-8193
lrc@utk.edu

Placement Exam
All students planning to enroll in a French, German, Latin, or Spanish course who have completed at least two years of this language in high school and have not yet taken a college course in the language must take a UT placement exam before enrolling. This rule does not apply to students who receive AP credit in the language. The score on the exam will determine placement in the appropriate course. Ordinarily, a student will not be allowed to enroll in a course at a level above that determined by his/her placement exam score.

Transition Course
Some students who have had two years of the same language in high school and receive a placement score below the level required for admittance into intermediate-level language courses may be placed in a 150 language course. These courses are designed to prepare students for enrollment in intermediate-level foreign language courses and count as elective credit. Students who receive credit for this course may not receive credit for any other 100-level course of the same language.
**General Education Requirements by Major**

See catalog.utk.edu for the University of Tennessee General Education Requirements

**Communication Through Writing:**
- Aerospace - AE 449
- Biomedical - BME 449
- Biosystems - English 360
- Chemical - CBE 415
- Civil - CE 205
- Computer, Electrical - ECE 402
- Computer Science - CS 402
- Industrial - IE 350, 422
- Materials Science - MSE 304, 405
- Mechanical - ME 449
- Nuclear - NE 401, 402, 427

**Cultures and Civilizations:**
Students may satisfy Cultures and Civilizations in one of two ways: intermediate proficiency in a foreign language, demonstrated by credit for the 200-level sequence in the foreign language, OR two completed courses from the Cultures and Civilizations list from the catalog. The Tickle College of Engineering does NOT require foreign language, but students are welcome to use intermediate proficiency in foreign language to satisfy this requirement.

**Communicating Orally:**
- Aerospace, Biomedical, Mechanical - AE 410, BME 410 or ME 410
- Biosystems - BSE 404
- Chemical - CBE 488 or 490
- Civil - CE 205
- Computer, Electrical - ECE 402
- Computer Science - CS 402
- Industrial - IE 422
- Materials Science - MSE 489
- Nuclear - NE 400

\[ f' = \frac{f}{v + y} \]

**General Education Requirements in Engineering**
What it is, what it does, and how to use it:
UT students have access to the Degree Audit Report System (DARS), which allows you to look at the credits you have on your academic history and see how they fit into the specific requirements of your major. While it defaults to your currently declared major, you can also use this system to look at any major or minor offered at UT to see how your courses would fit into those programs. It is important for you to be able to run and interpret your DARS report because this system is the one the registrar uses to check whether or not you have met all the specific requirements for your major in order to graduate. So, it is your responsibility to learn how to use the system. These pages will give you the basics on how to access the system and run your report.

To access DARS:

Step 1
Log into my.utk.edu and then click on the DARS and uTrack link under the Academic Resources heading.

Step 2
Once in DARS, click on the “Run Audit” box to begin the process.

Step 3
Your declared degree program, along with any second majors or minors you are also doing, will now appear on the list of audits you have requested. To run the report, you would just click on the button that says “Run Declared Programs.”

Step 4
Once you open your DARS report, you should click on the printer friendly icon, so that the full report opens up and you can see all the requirements under each tab of the report.

Step 5
As you scroll through the report, you will notice that the tabs have different colors. Tabs that are GREEN mean that that degree requirement is completed. Tabs that are RED show which requirements you have not yet met for your degree, and the DARS report shows which courses are still required to meet that particular requirement for your degree. Tabs that are BLUE show course requirements that you are finishing during the current semester.

Step 6
Finally, any course credits you have that do not fulfill requirements for your degree are listed at the bottom of the DARS report. Likewise, any course you withdrew from or did not pass is also listed at the bottom of the report.

If you still have questions, your academic advisor will also be able to help you learn how to interpret your DARS report so that you can understand what degree requirements you have completed and which ones you still need to finish. If you have further questions, contact ENGINEERING ADVISING SERVICES in 316A Perkins Hall, 865-974-4408.
UTrack Information

Universal Tracking (UTracK)

Universal Tracking (UTracK) is an academic monitoring system designed to help students stay on track for timely graduation. Tracking will begin with first-time, first-year, full-time, degree-seeking college students entering fall 2013.

Policy

1. Students must declare a major or exploratory track at the time they are admitted to the university. Some majors have a competitive admissions process.
2. All students must transition out of exploratory tracks into a major track no later than the end of the fourth tracking semester at UT.
3. Students who are off track must develop an advisor-approved plan for getting back on track before they will be allowed to register for future tracking semesters.
4. Students who are off track for two consecutive semesters will be placed on hold and required to select a new major that is better aligned with their abilities.

Definitions

Exploratory Tracks

• College-Level Exploratory—Students who are deciding among one or more majors that are all offered by the same college follow an exploratory track for that college (e.g., Arts and Sciences Exploratory, Business Exploratory, etc.)

• University Exploratory—Students who have no clear idea of which major to pursue and/or those who are trying to decide among majors that are not in a single college follow the University Exploratory track.

Milestones—in order to remain on track for a major or exploratory area, students must complete minimum requirements for each tracking semester known as milestones. Milestones include successful completion of specified courses and/or attainment of a minimum GPA.

Tracking Semesters—Only fall and spring semesters are tracking semesters. Mini and summer semesters are not tracking semesters, they provide an opportunity for students to catch up on unmet milestones. Study abroad and co-op semesters are not tracking semesters. Students participating in study abroad and co-op are not required to complete milestones while they are away from campus.

Tracking Audit—Tracking audits will help students identify their milestone progress; audits are tied to a catalog year. Tracking audits will be used to notify students when they are off track.

Off Track for a Single Semester—Students who are off track at the end of a tracking semester must meet with an advisor as soon as possible but no later than the end of the next tracking semester to develop a plan for getting back on track. Students who do not have an advisor-approved plan for getting back on track will not be allowed to register for future tracking semesters.

Off Track for Two Consecutive Semesters—Students who are off track for two consecutive semesters will have a hold placed on their registration and must meet with a new advisor in one of the advising centers no later than the end of the “add” period of the next tracking term to select a new major that is better aligned with the student’s abilities.

MyUTK

A QUICK REFERENCE FOR USING THE ONLINE REGISTRATION

To begin registration, you need to log on to MyUTK (my.utk.edu), and then log in with your username, which is your NETID (not ID #), and your NETID password.

TO SEARCH FOR CLASSES and/or CREATE A SCHEDULE PLAN

STEP 1—Log into my.utk.edu and then click on the Search For Classes link under the Academic Resources heading.

STEP 2—Once in the registration system, click on the Browse Classes link on the right side of the menu to begin the process of searching for classes.

STEP 3—Each time you look for courses or attempt to register, you must make sure you are looking for courses in the correct semester with this menu.

STEP 4—Once you are in the correct semester, you can look up the classes by the department that teaches them. So, for example, if you want to take EF 151, you would look up Engineering Fundamentals as this subject.

If you wish to create a tentative plan for the whole semester, you can use the Plan Ahead feature.

Under the Plan Ahead feature, you can create up to 5 plans per semester. You can give these unique names so that you identify them later when you register.
TO REGISTER FOR CLASSES

STEP 1—Log into the registration system and then click on the Register for Classes link to sign up for courses. It is important that you look up courses prior to registration because the Banner System enforces pre- and co-requisite requirements (see Search for classes). You must register for all corequisite courses simultaneously. You can either look up courses individually, but we would encourage you to use the planning features in the search to make sure you have all the appropriate courses scheduled for your semester, especially if they have pre- and co-requisite requirements.

STEP 2—Once you have created a course plan, you can click on the tab that says Plans and add those classes to your schedule for the semester.

Once you have chosen the courses to be on your plan, you can submit those to your schedule for the semester (this dialog box will be in the bottom right of your screen).

After successful submission of your courses, the registration system will show you that your are registered in your courses (lower right dialog box). You can also see how the courses work together during the week with the calendar box on the lower left of the screen.

Keep in mind that any course you look for in the registration system has further information about it that you can find by clicking on the underlined title hyperlink of the class. Another dialog box will appear and allow you to find information on the professor, the text book, and any pre- or co-requisite information on the class.
Academic Calendar

Fall Semester 2018
Classes Begin ............................................................. Wednesday, August 22
Labor Day ................................................................. Monday, September 3
Fall Break ................................................................. Thursday–Friday, October 4–5
1st Session Ends ......................................................... Friday, October 12
2nd Session Begins ..................................................... Monday, October 15
Thanksgiving ............................................................. Thursday–Friday, November 22–23
Classes End ............................................................... Tuesday, December 4
Study Day ................................................................. Wednesday, December 5
Exams ...................................................................... Thursday–Thursday, December 6, 7, 10, 11, 12, 13
Graduate Hooding ...................................................... Thursday, December 13
Commencement ........................................................ Friday, December 14
Official Graduation Date .............................................. Saturday, December 15

Spring Semester 2019
Classes Begin ............................................................. Wednesday, January 9
MLK Holiday ............................................................. Monday, January 21
1st Session Ends ......................................................... Wednesday, February 27
2nd Session Begins ..................................................... Thursday, February 28
Spring Break ............................................................. Monday–Friday, March 18–22
Spring Recess ............................................................. Friday, April 19
Classes End ............................................................. Friday, April 26
Study Day ................................................................. Monday, April 29
Exams ...................................................................... Tuesday–Tuesday, April 30, May 1, 2, 3, 6, 7
Graduate Hooding ...................................................... Thursday, May 9
College Commencement Ceremonies ................................ Thursday–Saturday, May 9–11
Official Graduation Date .............................................. Saturday, May 11

Summer Term 2019
Mini Session Begins .................................................. Wednesday, May 8
Memorial Day Holiday ............................................... Monday, May 27
Mini Session Ends ...................................................... Wednesday, May 29
Full and 1st Sessions Begin ........................................ Thursday, May 30
1st Session Ends ......................................................... Thursday, May 30
Independence Day Holiday ......................................... Wednesday, July 3
2nd Session Begins ..................................................... Monday, July 8
Full and 2nd Sessions End .......................................... Friday, August 9
Summer Graduation Date* ........................................... Saturday, August 10

Key Term Dates

Fall 2018 - Undergraduate
Priority Registration Begins ........................................... March 19, 2018
Fall 2018 Graduation Application Deadline and Admission to Candidacy Deadline for Graduate Students August 10, 2018
Classes Begin ............................................................ August 22, 2018
Last Day to Add, Change Grading Options or Drop without a “W” — 1st Session Courses August 27, 2018
Last Day to Add, Change Grading Options or Drop without a “W” — Full Session Courses August 31, 2018
Labor Day (No Classes) ............................................... September 3, 2018
Last Day to Adjust Hours for Financial Aid Awarding ........................................................ September 4, 2018
Last Day to Drop with a “W” - 1st Session Courses .................................................. September 28, 2018
Fall Break (No Classes) ................................................. October 4–5, 2018
First Session Classes End .............................................. October 12, 2018
Second Session Classes Begin ...................................... October 15, 2018
Last Day to Add, Change Grading Options or Drop without "W" - 2nd Session Courses October 19, 2018
Last Day to Drop with a “W” - Full Term Courses .................................................. November 13, 2018
Last Day to Drop with “W” - 2nd Session Courses .................................................. November 21, 2018
Thanksgiving Holidays (No Classes) .................................. November 22–23, 2018
Total Withdrawal from the University Deadline ........................................... December 4, 2018
Classes End (Full and Second Session) ................................ December 4, 2018
Study Day ................................................................. December 5, 2018
Exam Period ............................................................. December 6, 7, 10, 11, 12, 13, 18
Commencement (Thompson Boling Assembly Center & Arena) .................................. December 14, 2018
Official Graduation Date on Transcript .................................... December 15, 2018

Financial Calendar for Fall Term 2018
Statement information available on MYUTK.UTK.EDU ................................................... July 13, 2018
Priority Registration Payment/Deadline .......................................................... August 20, 2018 by 4:30 p.m.
Late Registration/Late Fees Begin .................................................. August 22, 2018
Late Registration Payment/Deadline .......................................................... August 31, 2018 by 4:30 p.m.

*PAYMENT MUST BE RECEIVED BY THESE DEADLINES WHETHER OR NOT YOU HAVE RECEIVED a VolXpress STATEMENT. You may view your account on MyUTK.

*There is no commencement ceremony in the summer. This date is the official graduation date that will appear on the transcript of graduating students. The Academic Calendar is available on the Web site of the Office of the University Registrar registrar.tennessee.edu/academic_calendar.
Engineering Campus Map

Engineering Campus Office Locations by Building

Key for Engineering Buildings

<table>
<thead>
<tr>
<th>Building</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dougherty Hall</td>
<td>Department of Chemical &amp; Biomolecular Engineering 419</td>
</tr>
<tr>
<td></td>
<td>Department Mechanical, Aerospace, and Biomedical Engineering 414</td>
</tr>
<tr>
<td></td>
<td>National Office, Tau Beta Pi Engineering Honor Society 508</td>
</tr>
<tr>
<td>Clayton</td>
<td>Innovative Computing Laboratory 203</td>
</tr>
<tr>
<td></td>
<td>East Stadium Hall</td>
</tr>
<tr>
<td></td>
<td>Center for Materials Processing 513</td>
</tr>
<tr>
<td></td>
<td>Reliability &amp; Maintainability Center 507</td>
</tr>
<tr>
<td>Engineering &amp; Science Annex</td>
<td>Department of Nuclear Engineering 306</td>
</tr>
<tr>
<td>Min H. Kao Electrical Engineering &amp; Computer Science Building</td>
<td>Department of Electrical Engineering &amp; Computer Science 401</td>
</tr>
<tr>
<td></td>
<td>CURENT 555</td>
</tr>
<tr>
<td>Perkins Hall</td>
<td>College of Engineering Administrative Offices 114</td>
</tr>
<tr>
<td></td>
<td>Communications</td>
</tr>
<tr>
<td></td>
<td>Computer Assistance 112</td>
</tr>
<tr>
<td></td>
<td>Dean’s Office 124</td>
</tr>
<tr>
<td></td>
<td>Development 118, 120</td>
</tr>
<tr>
<td></td>
<td>Finance &amp; Administrative Affairs 219</td>
</tr>
<tr>
<td></td>
<td>Academic and Student Affairs 101</td>
</tr>
<tr>
<td></td>
<td>Engineering Advising Office 3164</td>
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<tr>
<td></td>
<td>Engineering Diversity Programs 301</td>
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<tr>
<td></td>
<td>Engineering Fundamentals Program 207</td>
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<tr>
<td></td>
<td>Engineering Professional Practice 307</td>
</tr>
<tr>
<td></td>
<td>Faculty Affairs 110</td>
</tr>
<tr>
<td></td>
<td>Tennessee Louis Stokes Alliance for Minority Participation 301</td>
</tr>
<tr>
<td>Science &amp; Engineering Research Facility (SERF)</td>
<td>Scintillation Materials Research Center 301</td>
</tr>
<tr>
<td>Senter Hall</td>
<td>Sustainable Building Materials Laboratory (SBML) 101</td>
</tr>
<tr>
<td></td>
<td>Fiber Composites Manufacturing Facility and Engineering Annex</td>
</tr>
<tr>
<td></td>
<td>See individual directory listings</td>
</tr>
<tr>
<td>John D. Tickle Engineering Building</td>
<td>Department of Civil &amp; Environmental Engineering 325</td>
</tr>
<tr>
<td></td>
<td>Department of Industrial &amp; Systems Engineering 525</td>
</tr>
<tr>
<td>UT Conference Center</td>
<td>Center for Transportation Research 309</td>
</tr>
<tr>
<td>Cherokee Farm Innovation Campus</td>
<td>Joint Institute for Advanced Materials (JIAM)</td>
</tr>
</tbody>
</table>

Not Shown

Biosystems Engineering & Soil Science — 2506 E.J. Chapman Drive, Knoxville, TN
National Transportation Research Center — 2360 Cherohala Blvd., Knoxville, TN
UT Space Institute — 411 B.H. Goethert Parkway, Tullahoma, TN