Orientation Guide

Summer 2015

Texas Tech University
Whitacre College of Engineering
www.coe.ttu.edu/orientation

www.coe.ttu.edu/orientation
Download a PDF version of this guide.

The Road Ahead

Welcome and Understanding Courses

Welcome to Texas Tech

We would like to welcome you to the campus of Texas Tech during orientation, and we hope you will choose to complete a degree here at Texas Tech.

As an engineering or computer science major, you will develop the knowledge, creativity, and problem solving skills to make our world a better place through science and technology. You will join our notable faculty and students who are known for their research and teaching excellence. We house cutting-edge research in areas such as nanotechnology, wind power, bioengineering and advanced materials. Many lower division courses are taught by tenured or tenure-track, you'll be inspired by our experienced and award-winning faculty from the beginning.

An education in the Whitacre College of Engineering offers an excellent path to your future career. The Engineering Opportunities Center (EOC) will connect you to internships, cooperative education experiences with industry partners, international study programs and the largest job fairs on the Texas Tech campus. To improve the transition from high school to college, we encourage participation in the ConocoPhillips Academic Success Bridge Program. The ConocoPhillips Academic Success Bridge Program provides study skill training, academic preparation training, mentoring and other academic support services. Graduates of Texas Tech are known to be well qualified with a strong work ethic and practical knowledge that make them highly sought after in industry and academics. You should not have any trouble getting a job – approximately 175 companies attend our Job Fair each semester!

With an engineering or computer science degree, your future is unlimited. You will be prepared for any professional future – from engineering to entrepreneurship, from law to medicine. The faculty and staff in the Whitacre College of Engineering are here to offer the guidance and support you'll need to achieve your academic goals.

Sincerely,

Al Sacco, Jr

Dr. Al Sacco Jr.
Dean, Edward E. Whitacre Jr. College of Engineering

Understanding Courses and Course Descriptions

Withdraws
Six total in all Texas institutions for freshmen and transfers

Course Numbering System
ENGL 1301, MATH 3350, ENGR 2392, PETR 4309

Prerequisite
A course which must be successfully completed (C or better) prior to taking the desired course.
MATH 1451 is a pre-requisite of MATH 1452

Corequisite
A course which should be taken together with the desired course.
CHEM 1107 and CHEM 1307 are co-requisites

Prerequisite That May Be Taken Concurrently
A course which may be taken at the same time or prior to the desired course.
MATH 1452 & PHYS 1408 are Co/Pre-requisites of CE 2301

Transferring Courses
Visit www.depts.ttu.edu/registrar/private/transfer/ for more information.

The Road Ahead
International Engineering Program

Required International Experience

As a future engineer, you will be part of an ever-increasing international profession where employers seek applicants who possess an awareness of global business practices, cross-cultural communication skills, and the ability to thrive in any environment.

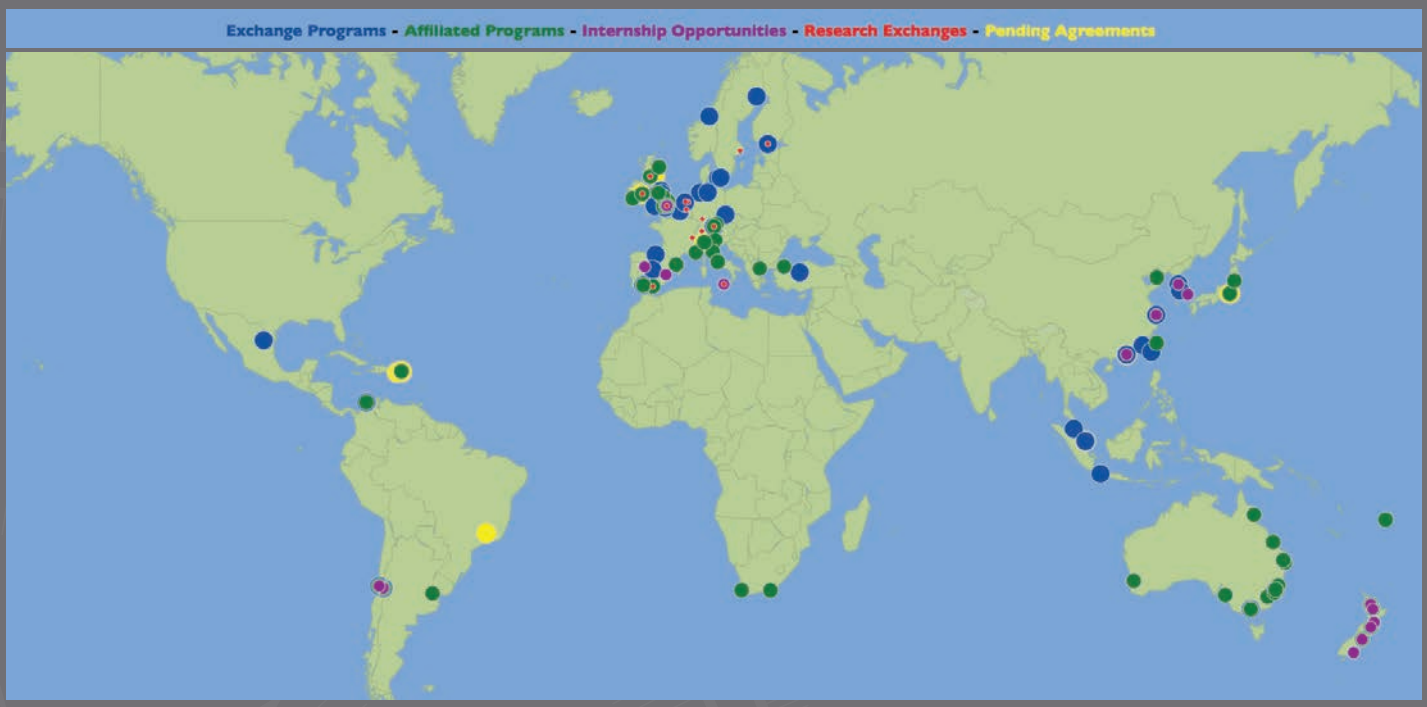
In order to prepare our graduates for the ever-changing global landscape, all undergraduates (starting with the Fall Class of 2013) **are required to have an international experience**.

What Types of Programs Are Available?

There are four ways to fulfill the international experience requirement:

- Study Abroad
- Internship Abroad
- Research Abroad
- Service Project Abroad

Where Can I Go?



Contact Us

International Engineering Program

Engineering Opportunities Center
Engineering Center Room 109
806.742.3451
iep.coe@ttu.edu **www.coe.ttu.edu/iep**

www.coe.ttu.edu/iep

Finding Your Way
Academic and Support Contacts

Engineering Opportunities Center - *Academic Student Support*

Dr. Audra Morse, Associate Dean for Undergraduate Studies
audra.n.morse@ttu.edu

John Rivera, Assistant Academic Dean
ConocoPhillips Academic Success Bridge Program, tutoring, mentoring, suspension, probation
john.rivera@ttu.edu

Allison Wright, Director
International Programs
allison.wright@ttu.edu

Jamie Perez, Assistant Director
Student organizational community
jamie.l.perez@ttu.edu

Shannon Younger, Lead Advisor
Advising/registration, academic credit & questions
shannon.n.younger@ttu.edu

Cody Henley, Academic Advisor
Flex academic advisor for the college
cody.henley@ttu.edu

Mackenzie Broughton, Unit Coordinator
Career services
mackenzie.broughton@ttu.edu

Molly Fisher, Unit Coordinator
Enrichment and diversity programs
molly.b.fisher@ttu.edu

Ashley Haseley, Unit Coordinator
International Programs
ashley.haseley@ttu.edu

Tonette Rittenberry, Unit Coordinator
Graduation preparation, degree audits, intent to graduate
tonette.rittenberry@ttu.edu

Gina Darty, Administrative Assistant
General questions and scheduling
gina.darty@ttu.edu

engineering opportunities center
www.coe.ttu.edu/eoc

Engineering Center Suite 102
www.coe.ttu.edu/eoc

www.coe.ttu.edu/eoc

Departmental Advisor Contacts

Chemical Engineering
Kristina Thompson — kristina.thompson@ttu.edu
806.742.3553

Civil,Environmental and Construction Engineering
Margie Ceja — margaret.ceja@ttu.edu
806.742.3523

Alex Newsom — alex.newsom@ttu.edu
806.742.3523

Computer Science
Dr. Richard Watson — richard.watson@ttu.edu
806.742.3527

Patty Rodriguez — patty.rodriguez@ttu.edu
806.742.3527

Electrical and Computer Engineering
Jennifer Maddox — jennifer.maddox@ttu.edu
806.742.3533

Industrial Engineering
Dr. Tim Matis — timothy.matis@ttu.edu
806.742.3543

Dr. Jim Smith — james.smith@ttu.edu
806.742.3543

Dr. Susan Urban — susan.urban@ttu.edu
806.742.3543

Mechanical Engineering
Jacob Grace — jacob.grace@ttu.edu
806.742.3563

D'Maris Murillo — dmaris.murillo@ttu.edu
806.742.3563

Petroleum Engineering
806.742.3573

Academic Contacts

Finding Your Way

Flowchart to an Engineering Degree

Texas Tech University Admission

Freshmen: Assured Admission
Transfers: 24 SCH, 3.0 GPA

Yes → **Whitacre College of Engineering Foundational Curriculum**

No → **PreEngineering**

12 SCH at Texas Tech
3.0 GPA

Yes → **Whitacre College of Engineering Foundational Curriculum**

No → **Transfer to Other University Program Outside the Whitacre College of Engineering**

Foundational Curriculum Including 12 SCH at Texas Tech
2.5 GPA (2.75 ME, 3.2 PE*)

Yes → **Whitacre College of Engineering Degree Programs**

No → **Transfer to Other University Program Outside the Whitacre College of Engineering**

Assured Admission Standards

Class Rank	Test Scores ACT	Test Scores SAT
Top 10%	No minimum	
First Quarter (excluding top 10%)	25	1140
Second Quarter	28	1230
Third Quarter	29	1270

Admissions.pdf

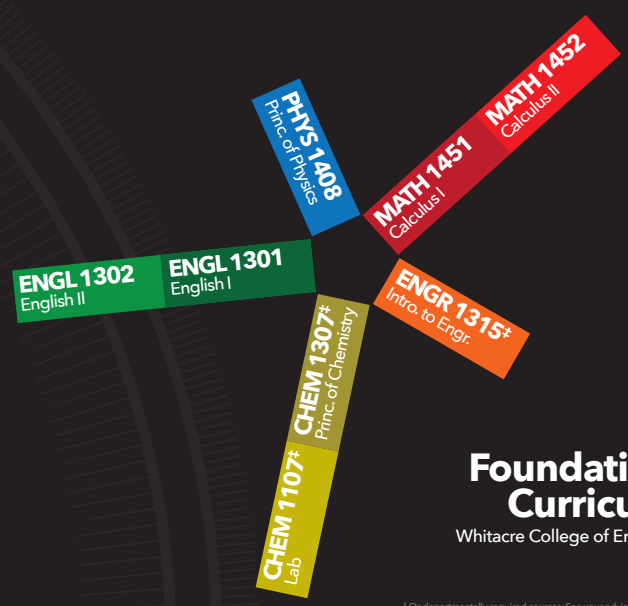
Admission Requirements

Whitacre College of Engineering

† Students who are assured admit and not TSI compliant will be admitted to Texas Tech as a PreEngineering student.
* Additional departmental restrictions may apply. See the Bob L. Herd Department of Petroleum Engineering for details.

Foundational Curriculum

Whitacre College of Engineering



‡ Or departmentally required courses. See your advisor for more details.

Help Along the Path

ConocoPhillips Academic Success Bridge Program

Studies show that you are more likely to get better grades, stay in engineering, and get better, higher paying jobs if you have enhanced study skills before starting college and if you understand how your engineering degree can be used. To help you along the road of success, the Whitacre College of Engineering offers the ConocoPhillips Academic Success Bridge Program at Texas Tech.

ConocoPhillips
Academic Success
Bridge Program

What is the ConocoPhillips Academic Success Bridge Program?

The ConocoPhillips Academic Success Bridge Program provides study skills training, academic preparation training, tutoring, mentoring, and other academic support services. After completing the ConocoPhillips Academic Success Bridge Program, we believe that you will have an academic foundation and the confidence to succeed in engineering.

The focus of the program is a concentrated math review course that begins one week before the fall 2015 semester begins. Mentoring and academic support opportunities will continue through the fall semester with the support of peer mentors. Students will also participate in three seminars in the fall semester. Participants have the opportunity to move in early to the residence halls. The program consists of a basic math concepts review, combined with hands-on learning experiences, to show how math is fun and a critical component of all aspects of engineering. In the past, more than 80% of participating students were eligible for Calculus I at the completion of the week-long course.

Who Should Apply?

PreEngineering Students

For students in PreEngineering, completion of 12 hours, including Calculus I, while maintaining a GPA more than 3.0 will help you qualify to be a Foundational Curriculum[1] student. As an added benefit, completion of the ConocoPhillips Academic Success Bridge Program will allow you to qualify[2] as a Foundational Curriculum student without having to complete the 12 hour requirement. To do so, you must qualify for Calculus I and another Foundational Curriculum course for the fall semester. More than 50% of students who participated in a similar program in the past completed Calculus I after their first semester at Texas Tech. This program can put you on the fast track through PreEngineering and toward completion of the Foundational Curriculum.

ConocoPhillips Academic Success Bridge Program Information Session

3:00 - 5:00 p.m.
Terry Fuller Petroleum Engineering Research Building
Room 110

Foundational Curriculum Students

For Foundational Curriculum students who have not yet completed Calculus I, the math review course and academic support services provided by the program can help to build a foundation of success in Calculus I and other engineering courses. More than 50% of students who participated in a similar program in the past completed Calculus I after their first semester at Texas Tech. This program can put you on the fast track to completion of the Foundational Curriculum.

Application

To know if this program is right for you, take the Texas Tech Math Placement Exam now. If you score a 4, 5, 6, or 7, the ConocoPhillips Academic Success Bridge Program may be right for you. Students should have taken Trigonometry, Pre-Calculus, or Calculus I at the high school or college-level. Complete the application on the program website.

[1] The Foundational Curriculum at Texas Tech consists of 25 hours of courses common to all degree programs. The Foundational Curriculum requirements must be completed before entry to a degree program, while maintaining a minimum GPA. (2.75 for Mechanical Engineering majors, 3.2 for Petroleum Engineering majors and 2.5 for all other Whitacre College of Engineering majors.) Timely and successful completion of Foundational Curriculum courses ensures that students will graduate on time. All new admissions to the Whitacre College of Engineering initially work to complete a foundational curriculum consisting of English I, English II, Calculus I, and Calculus II plus two science courses and a first engineering course that vary among the engineering degree programs. The foundational curriculum is supplemented with courses from the university core curriculum and first general engineering courses (statics, thermodynamics, circuits, and materials science) to provide the opportunity for full course loads and scheduling flexibility.

[2] To qualify as a Foundational Curriculum student through the ConocoPhillips Academic Success Bridge Program, you must satisfy each of the following requirements:
- Earn a grade of "B" or better in ENGR 1106
- Score a "7" on the Texas Tech Math Placement Exam
- Qualify for Calculus I and another Foundational Curriculum course for the fall semester.
- Attend the LYFE event on Saturday, August 22.

If you have questions, email bridge.coe@ttu.edu

www.coe.ttu.edu/bridge

www.coe.ttu.edu/bridge

Help Along the Path
Getting Help at Texas Tech

Launch Your Future in Engineering (LYFE)

Launch Your Future in Engineering (LYFE), held on August 22, 2015 from 1-5 p.m. at the Allen Theater in the Student Union Building is an event to welcome incoming freshman and transfer students to the Whitacre College of Engineering. During LYFE, students will learn about the International Engineering Program, career services events and activities, academic support, and other upcoming student activities in the college. Students will have the opportunity to meet faculty and staff members, as well as engineering students.

www.coe.ttu.edu/lyfe

Fall Kick-off Event

The Engineering Kick-Off Event is held each September on the Engineering Key. This event showcases the exciting world of engineering and brings students, faculty, staff and industry partners together for fun and community-building. Students have the opportunity to meet with student organizations, honor societies, academic support offices, and service opportunities. Color-coded t-shirts that match each major bring students, faculty & staff together for networking and fun.

www.coe.ttu.edu/kickoff

Campus Resources

Engineering Tutoring Center
Free tutoring is available each week of the fall and spring semesters for all engineering majors.

John Rivera 806.742.3451 john.rivera@ttu.edu

ConocoPhillips Center for Engineering Enrichment and Diversity
The ConocoPhillips Center for Engineering Enrichment and Diversity provides academic support for engineering and computer science students. The academic support is free and available Monday through Friday from 2 p.m. to 5 p.m.

Jamie Perez 806.742.3451 jamie.l.perez@ttu.edu
John Rivera 806.742.3451 john.rivera@ttu.edu

Leadership And Mentorship Program (LAMP) Tutoring Program by Engineering Ph.D. Students
LAMP Tutoring Program offers tutoring and academic support for engineering courses in each engineering major by Ph.D. students in each major. Undergraduate students receive tutoring for sophomore, junior and senior level courses. All undergraduate students will receive the schedule for LAMP Tutoring for each semester.

John Rivera 806.742.3451 john.rivera@ttu.edu

Support Operations for Academic Retention
The Support Operations for Academic Retention department endeavors to assist students achieve academic success at Texas Tech. The department has five main areas: The Learning Center, Tech Transfer Acceleration Program, XL: Strategies for Learning, Supplemental Instruction, and Texas Success Initiative Developmental Education Program (TSI).

Holden Hall 59 806.742.3928 www.depts.ttu.edu/passcntr

Student Disability Services
Texas Tech University has one of the most comprehensive departments for students with disabilities in the state, where the Student Disability Services (SDS) staff provides a variety of accommodations and services for individuals with disabilities. Accommodations will be made in response to the specific disability.

335 West Hall 806.742.2405 www.depts.ttu.edu/students/sds

Student Counseling Center
Meeting the mental health needs of Texas Tech students.

Student Wellness Center Room 201 806.742.3674 www.depts.ttu.edu/scc

Technology for Your Journey

The Remote Lab and "Buying the Right Computer"

Whitacre College of Engineering Remote Lab

The Whitacre College of Engineering is empowering the on the go lifestyles of its student population by providing the Whitacre College of Engineering Remote Lab through its Cloud Computing Initiative. Students can use their favorite PC, Mac, thin client, smartphone and tablet platforms, including Apple iOS, Android, and BlackBerry, to access the Remote Lab from anywhere they have a high speed internet connection.

Buying The Right Computer

All incoming students are required to have a laptop or tablet to facilitate their ability to use the college and university's cloud computing resources.The following is advice from Engineering Computing Services (ECS) on computer purchases for academic studies in engineering.

Windows-Based Systems
(Windows 7 Ultimate is available from the ATLC in library for $10)

www.coe.ttu.edu/computing

Laptop – Standard User
- Windows 7 64-bit Home Premium or better
- Intel Core i5 or i7 processor or AMD A6 or A8 processor
- 4GB memory or higher
- 250GB or larger hard drive at 7200rpm or faster
- 512MB dedicated memory graphics card or better
- 8x CD/DVD Burner or Blu-Ray Combo Drive
- 13" Widescreen or larger

Laptop – Power User
- Windows 7 64-bit Professional or Ultimate
- Intel Core i7 processor or AMD A8 processor
- 6GB or 8GB memory
- 500GB or larger hard drive at 7200rpm or 128GB or larger SSD hard drive
- 1GB dedicated memory graphics card or better
- 8x CD/DVD Burner or Blu-Ray Combo Drive
- 15" Widescreen or larger

Macintosh OS-Based Systems

Laptop – All Users
- MacBook Pro or Higher
- Mac OS X Lion
- Intel Core i5 or i7
- 4GB of memory
- 500GB HDD or 128GB SSD
- 384MB Graphics Memory Card

Some software required for certain courses may be available only for Windows systems. For these cases, we recommend using bootcamp or VMware Fusion, which is available for students. Students can also access the Whitacre College of Engineering Remote Lab for software that cannot be installed on Mac OS.

For more information, visit:
www.coe.ttu.edu/computing