

NCEES
FUNDAMENTALS OF ENGINEERING
(FE) EXAM
CECE DEPARTMENT
TEXAS TECH UNIVERSITY

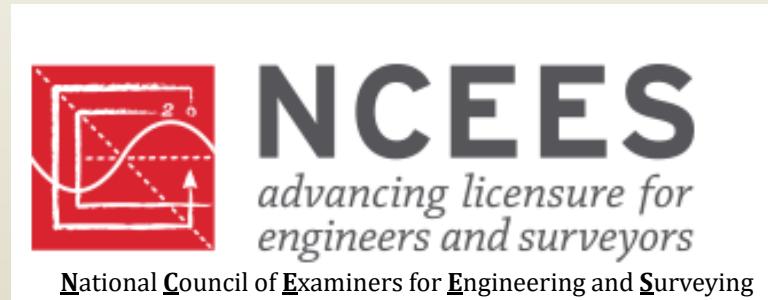
William D. Lawson, PE, PhD
Spring 2022 Semester

Spring 2022

FE Exam Discussion

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<http://ncees.org/engineering/fe/>

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FE Exam Discussion

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OVERVIEW

1. FE Exam... What is it?
2. Eligibility
3. New vs. Old... FE Exam Comparison
4. The 2020 CBT FE Exam
5. FE Exam Study Materials
6. FE Exam Performance by CE [& ENVE] Students
7. Professional Philosophy toward the FE Exam
8. Educational Philosophy toward the FE Exam

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FE EXAM DISCUSSION
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1. FE EXAM... WHAT IS IT?

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The screenshot shows the NCEES website at ncees.org/engineering/fe/. The header features the NCEES logo and navigation links for home, about, engineering, surveying, licensure, news, and contact. A search bar and social media icons are also present. The main content area is titled "FE exam". It includes a yellow-highlighted paragraph about the FE exam being the first step to becoming a professional licensed engineer (P.E.). Below this, a list details the exam's duration and components. Further down, instructions for registration and preparation are provided, along with information about exam fees and accommodations.

FE exam

The Fundamentals of Engineering (FE) exam is generally your first step in the process to becoming a professional licensed engineer (P.E.). It is designed for recent graduates and students who are close to finishing an undergraduate engineering degree from an EAC/ABET-accredited program. The FE exam is a computer-based exam administered year-round at NCEES-approved Pearson VUE test centers.

The FE exam includes 110 questions. The exam appointment time is 6 hours long and includes

- Nondisclosure agreement (2 minutes)
- Tutorial (8 minutes)
- Exam (5 hours and 20 minutes)
- Scheduled break (25 minutes)

Learn more at the [NCEES YouTube channel](#).

Register for an FE exam by logging in to your [MyNCEES](#) account and following the onscreen instructions. Prepare for the FE exam by

- Reviewing the FE exam specifications, fees, and requirements
- Reading the reference materials
- Understanding scoring and reporting
- Viewing the most up-to-date FE exam pass rates

A \$175 exam fee is payable directly to NCEES. Some licensing boards may require you to file a separate application and pay an application fee as part of the approval process to qualify you for a seat for an NCEES exam. Your licensing board may have additional requirements. [Special accommodations](#) are available for examinees who meet certain eligibility criteria and sufficiently document their request.

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The FE Exam

- The Fundamentals of Engineering (FE) exam is typically the first step in the process leading to the P.E. license.
- It is designed for recent graduates and students who are close to finishing an undergraduate engineering degree.

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What is the FE, really?

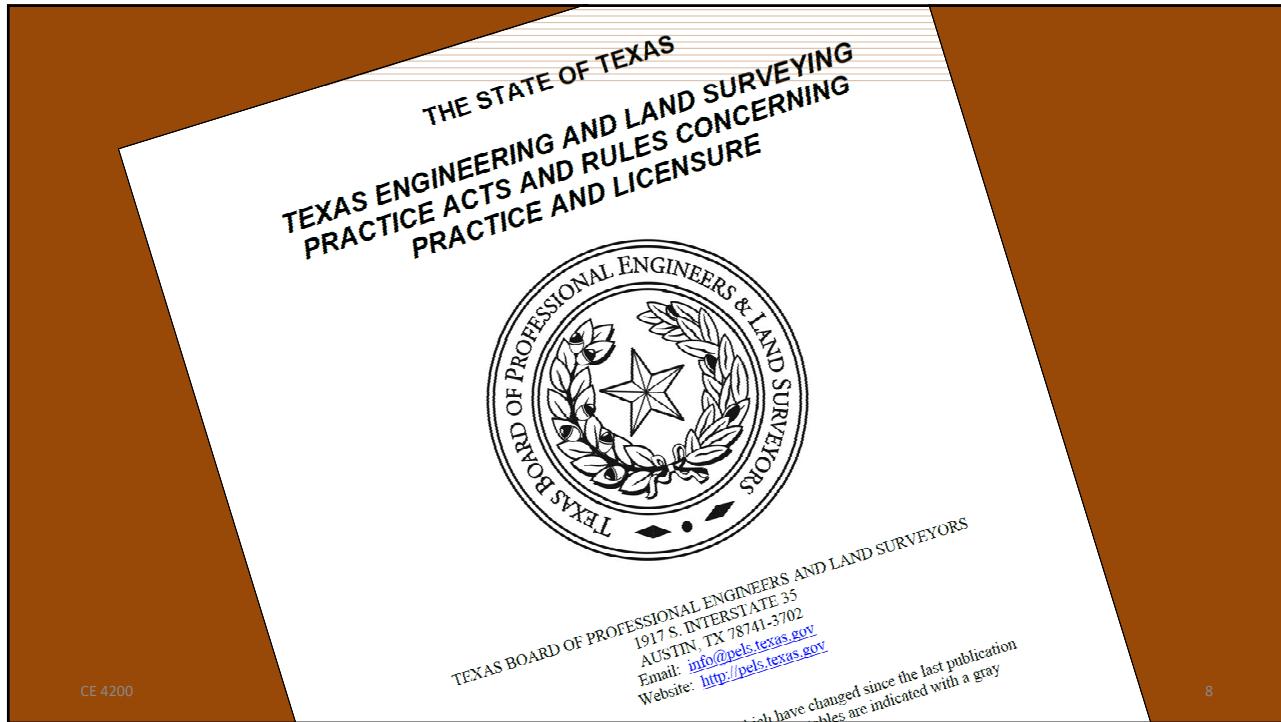
The FE Exam is designed to provide evidence of technical competency for the purpose of engineering licensure.

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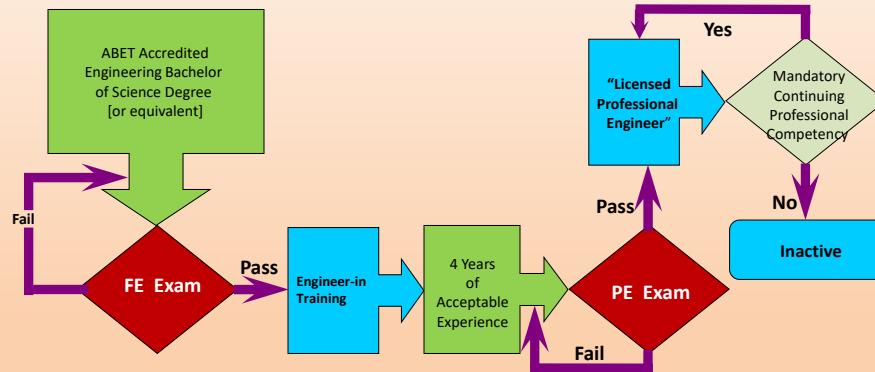


CE 4200

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Idealized Engineering Licensure Model



CE 4200

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FE Exam Overview

- The FE contains 110 multiple-choice/ AIT (alternative item type) questions.
- The exam appointment time is 6 hours long
- Includes
 - a nondisclosure agreement (2 minutes)
 - tutorial (8 minutes)
 - the exam (5 hours and 20 minutes)
 - a scheduled break (25 minutes)
 - a brief survey

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FE Exam Specifications

- The FE is offered in seven disciplines:

[FE Chemical](#)

[FE Civil](#)

[FE Electrical and Computer](#)

[FE Environmental](#)

[FE Industrial](#)

[FE Mechanical](#)

[FE Other Disciplines](#)

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2. ELIGIBILITY

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PE+LS Texas Board of Professional Engineers and Land Surveyors

Agency Board Enforcement EITs Exams Firms Licensing Outreach PEs Rosters

Examinations - All applicants for licensure must take and pass three examinations

1. The FE Exam - The National Council of Examiners for Engineering & Surveying (NCEES), Fundamentals of Engineering (FE) Examination.
2. The PE Exam - The NCEES Principles and Practice of Engineering (PE) examination.
3. The Texas Ethics of Engineering Exam is an open book examination concerning the Texas Engineering Practice Act and the Board Rules. You may either take the exam online or download the Ethics Exam from this website and complete it at your convenience. [Click here to go to Ethics Exam Link](#).

Exam Waivers - The board has provisions for waivers of the FE and the PE exam. See the [Exam Waivers](#) page for more information.

FE (Fundamentals of Engineering Exam)

The Fundamentals of Engineering examination is a computer-based exam with supplied reference information consisting of a morning session and a afternoon session. The examination is discipline specific. The FE exam is held at Pearson VUE testing centers. The NCEES policy allows examinees to take the FE exam once during any two-month testing window, and no more than three times in a twelve-month period. Refer to [NCEES](#) for any questions.

An undergraduate student who is within two full-time semesters (not including summer sessions) of graduating and who is enrolled in an EAC/ABET-accredited engineering program, an ETAC/ABET-accredited four year baccalaureate engineering technology program, or an engineering-related science program of four years or more that has been approved by the Board.

A graduate student enrolled in a Master's or Ph.D. engineering program may take the FE exam.

Exam for Record Purposes - Individuals who are licensed to practice professional engineering in Texas may take the examination for record purposes.

Address: P.O. Box 1686 (280 Seneca Creek Road)
Clemson, SC 29633-1686 U.S.A.
Phone: (800) 250-3196 or (864) 654-6824

Resources

Disciplinary Actions
Law and Board Rules
Military Service Members
NCEES
Outreach Scheduling
Policy, Advisories
Public Information Requests
[What is a P.E. Required on a project?](#)
[Videos](#)

Texas Board of Professional Engineers and Land Surveyors
1917 S Interstate 35, Austin, TX 78741 • Phone: 512-440-7723 • Fax: 512-442-1414 • info@tbe.texas.gov

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Register for the Exam

How do I register for an exam?

- You must register for all FE and PE exams on-line at the NCEES exam registration system.
- The exam registration system begins at:
<http://ncees.org/engineering/fe/>
- You must have a MyNCEES account to register for an exam:
<https://account.ncees.org/login>

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FE Exam Dates

When are the exam dates and what are the fees?

- The FE exam is offered in testing windows throughout the year during the following months:
 - January-March
 - April-June
 - July-September
 - October-December.
- The exams will be conducted at Pearson VUE testing centers.
- NCEES policy allows an examinee to take the FE exam once during a testing window, and no more than three times during a twelve-month period.

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FE Exam FEES

A \$175 exam fee is payable directly to NCEES. Some states require candidates to pay an application fee as part of the approval process. Candidates may have additional requirements. **Special accommodations** may be granted if candidates can demonstrate they meet specific criteria and sufficiently document their request.



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3. NEW VS. OLD... FE EXAM COMPARISON

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Knowledge Area	Number of Questions
Mathematics and Statistics	4–6
Ethics and Professional Practice	5–8
Engineering Economics	8–12

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Ongoing Evolution of the FE Exam

1940	1950	1960	1970	1980	1990	2000	2010	2020	2030
1956	Pencil & Paper, 8.0 hrs, General Engr Content, 180 Questions, Open Book								
					1993	Supplied Reference, Ed. 1			
					1996	4.0 hrs Gen. / 4.0 hrs Discipline-Spec.			
						2014	CBT, 5.3 hrs, 110 ques		
						2020	Topics...		

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2014 “Morning” Session, FE Exam (CIVIL)

FORMER VERSION (120 questions)		2014 CBT VERSION (CIVIL)	
Mathematics	18	Mathematics	7-11
Engineering Probability and Statistics	8	Engineering Probability and Statistics	4-6
Chemistry	11	Chemistry	OUT
Computers	8	Computational Tools	4-6
Ethics and Business Practices	8	Ethics and Professional Practice	4-6
Engineering Economics	10	Engineering Economics	4-6
Engineering Mechanics - Statics	6	Statics	7-11
Engineering Mechanics - Dynamics	6	Dynamics	4-6
Strength of Materials	8	Mechanics of Materials	7-11
Material Properties	8	Material Properties	OUT
Fluid Mechanics	8	Fluid Mechanics	4-6
Electricity and Magnetism	11	Electricity and Magnetism	OUT
Thermodynamics	8	Thermodynamics	OUT

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2014 “Afternoon” Session, FE Exam (CIVIL)

FORMER VERSION (60 questions)		2014 CBT VERSION (CIVIL)	
Surveying	7	Surveying	4-6
Hydraulics and Hydrologic Systems	7	Hydraulics and Hydrologic Systems	8-12
Soil Mechanics and Foundations	9	Geotechnical Engineering	9-14
Environmental Engineering	7	Environmental Engineering	6-9
Transportation	7	Transportation Engineering	8-12
Structural Analysis	6	Structural Analysis	6-9
Structural Design	6	Structural Design	6-9
Construction Management	6	Construction	4-6
Materials	5	Materials	4-6

CBT CIVIL EXAM

AM... 43 to 69, avg 56/110 questions

PM... 55 to 83, avg 69/110 questions

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2020 FE Exam (CIVIL)

2014 FE EXAM SPECIFICATION				2020 FE EXAM SPECIFICATION			
No	TOPIC	Number of Questions (FE Exam)	Recmd # MFE+	No	TOPIC	Number of Questions (FE Exam)	Recmd # MFE+
1	Mathematics	7-11	4	1	Mathematics and Statistics	8-12	5
2	Probability and Statistics	4-6	3		∅	0	0
3	Computational Tools	4-6	3		Ethics and Professional Practice	4-6	3
4	Ethics and Professional Practice	4-6	2	2	Engineering Economics	5-8	3
5	Engineering Economics	4-6	3	3	Statics	8-12	5
6	Statics	7-11	4	4	Dynamics	4-6	3
7	Dynamics	4-6	3	5	Mechanics of Materials	7-11	4
8	Mechanics of Materials	7-11	4	6	Materials	5-8	3
9	Materials	4-6	3	7	Fluid Mechanics	6-9	4
10	Fluid Mechanics	4-6	3	8	Surveying	6-9	4
18	Surveying	4-6	3	9	Water Resources and Environmental Engineering	10-15	7
11	Hydraulics and Hydrologic Systems	8-12	5	10	Structural Engineering	10-15	6
16	Environmental Engineering	6-9	4	12	Geotechnical Engineering	9-14	5
12	Structural Analysis	6-9	4	13	Transportation Engineering	8-12	4
13	Structural Design	6-9	3	14	Averages	100-152	62
14	Geotechnical Engineering	9-14	5		Averages	100-152	62
15	Transportation Engineering	8-12	4				
17	Construction	4-6	2				

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Civil Engineering Curriculum

Dynamic Enrollment Management Plan Curriculum for Bachelor of Science Civil Engineering Texas Tech University						
Name:				Date Entered COE:		
R #:				Date Entered CE:		
Pre-Entry	Freshman	Sophomore	Junior	Senior		
Term F13 Example Grade A	Math 1451 *Math 1350 or equiv. 7 on MPE	Math 1452 *Math 1451	Math 2450 *Math 1452	Math 3350 *Math 1452	CE 3372 10 *CE 3308 *Chem 1108	CE 4330 CE 4331 See Note D *Last Full Semester
	Chem 1307 Chem 1107 *Chem 1301 or 60+ on CPE	Chem 1308 Chem 1108 *Chem 1307 Chem 1107	ECE 3301 *Math 1452	CE 3303 *CE 2301	CE 3354 10 *CE 3305	CE 3341 11 *CE 3440
	E GR1207	Phys 1408 *Math 1451	CE 2301 *Math 1452 *Phys 1408	IE 2324 *Math 1451	CE 3440 11 *CE 3303	CE 3302 *CE 2301 **Math 2450
	Hist 2300	ENGR 1315 **Math 1451	CONE 2302 9 *Math 3321 or equiv.	CE 3305 *CE 2301	CE 3103 11 *CE 3303	CE 3321 12 *CE 3303
	Engl 1301	Engl 1302 *Engl 1301	CE 2201 *MATH 1452 & PHYS 1408	Statistica IE 3341 or Math 3342	Hist 2301	Pols 1306
	CE 1130		Pols 1301 International Experience		CE 3105 10 *CE 3305	Foreign Language Fulfilled: <input type="checkbox"/> YES / <input type="checkbox"/>
						14

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Fundamentals of Engineering (FE)
CIVIL CBT Exam Specifications
Effective Beginning with the July 2020 Examinations

- The FE exam is a computer-based test (CBT). It is closed book with an electronic reference.
- Examinees have 6 hours to complete the exam, which contains 110 questions. The 6-hour time also includes a tutorial and an optional scheduled break.
- The FE exam uses both the International System of Units (SI) and the U.S. Customary System (USCS).

Knowledge

- Mathematics and Statistics**
 - Analytic geometry
 - Single-variable calculus
 - Vector operations
 - Statistics (e.g., distributions, mean, mode, standard deviation, confidence interval, regression and curve fitting)
- Ethics and Professional Practice**
 - Codes of ethics (professional and technical societies)
 - Professional liability
 - Licensure
 - Contracts and contract law
- Engineering Economics**
 - Time value of money (e.g., equivalence, present worth, equivalent annual worth, future worth, rate of return)
 - Cost (e.g., fixed, variable, direct and indirect labor, incremental, average, sunk) losses (e.g., break-even, benefit-cost, life cycle, sustainability, renewable value and risk)

Number of Questions

8–12

4–6

5–8

8–12

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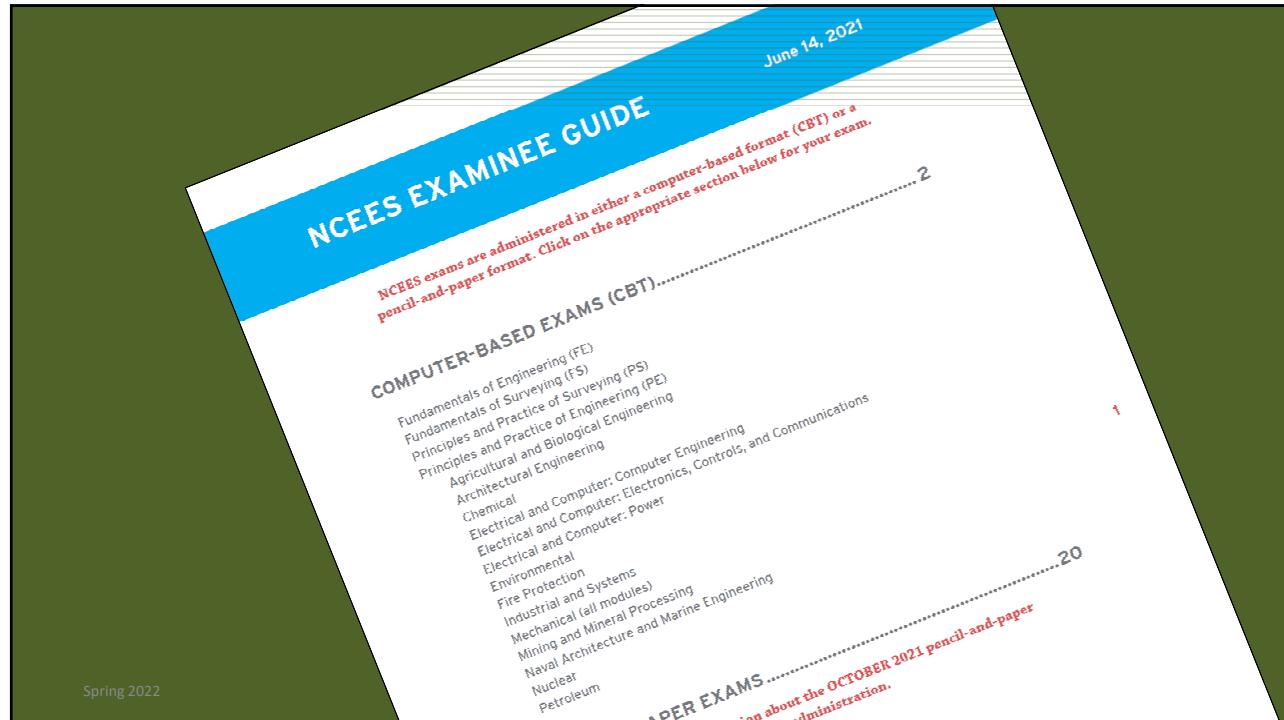
4. THE 2020 CBT FE EXAM

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ABOUT the 2020 CBT Exam

- 110 questions
- 6 hours total
- 5 hours, 55 minutes appointment time
- 5 hours, 20 minutes exam time
- Both SI & US customary units

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Alternative Item Types

Starting July 1, 2017, the computer-based FE introduced a new testing component: alternative item types (AITs). AITs are questions other than traditional multiple-choice questions.

Alternative items types

CBT exams include traditional multiple-choice questions as well as alternative item types (AITs). AITs include but are not limited to the following:

- Multiple correct—allows examinees to select multiple answers
- Point and click—requires examinees to click on part of a graphic to answer
- Drag and drop—requires examinees to click on and drag items to match, sort, rank, or label
- Fill in the blank—provides a space for examinees to enter a response to the question

AITs are incorporated into the practice exams for CBT exams. You can also review the general format of AITs in the Pearson VUE computer-based testing demo.

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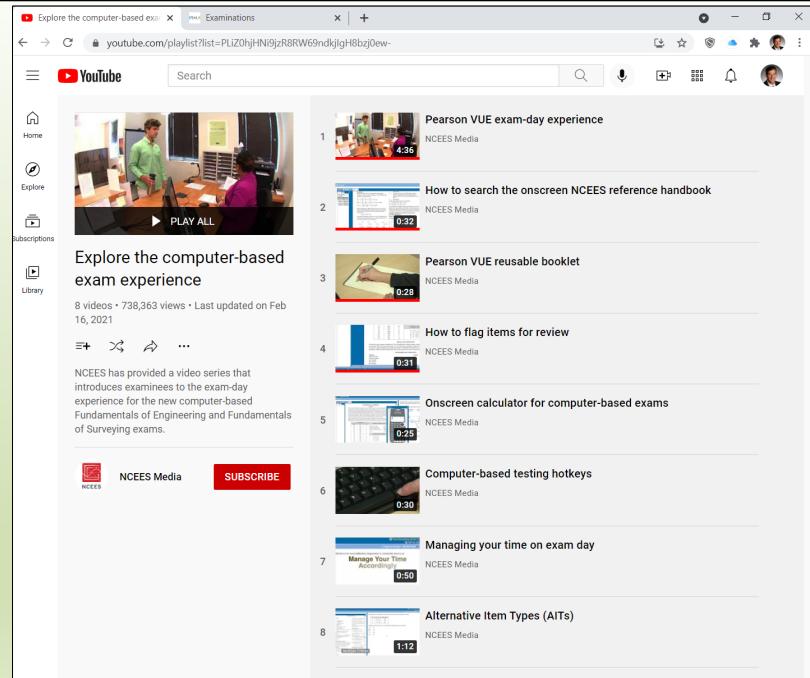
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NCEES YouTube Channel

<https://www.youtube.com/playlist?list=PLIZ0hjHN9jzR8RW69ndkjgH8bzj0ewv->



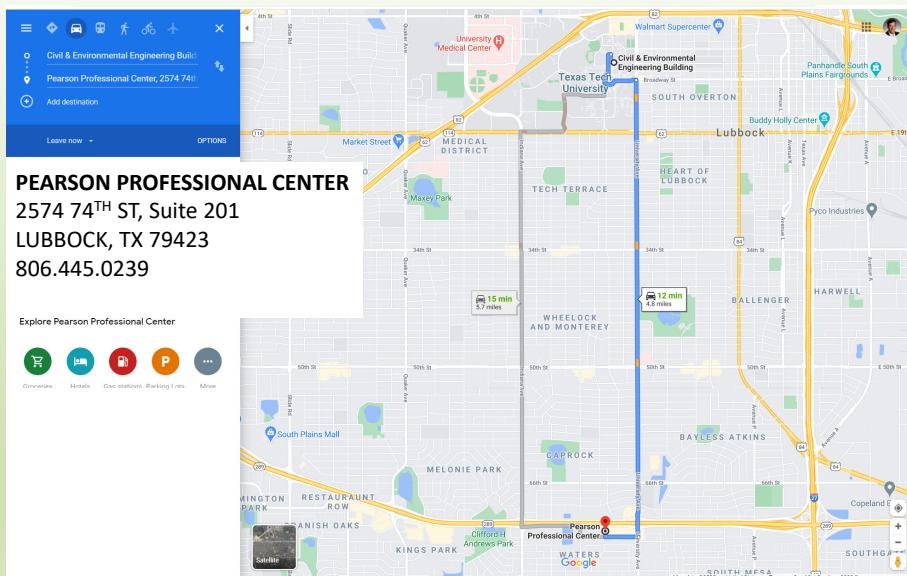
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PEARSON PROFESSIONAL CENTER



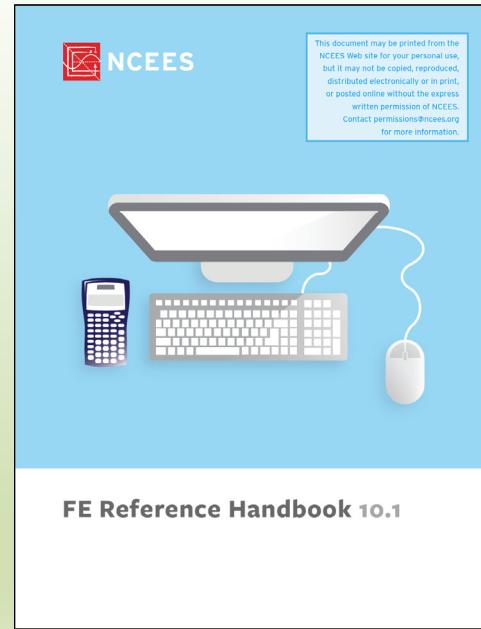
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A New
FE Reference Handbook



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5. FE EXAM STUDY MATERIALS

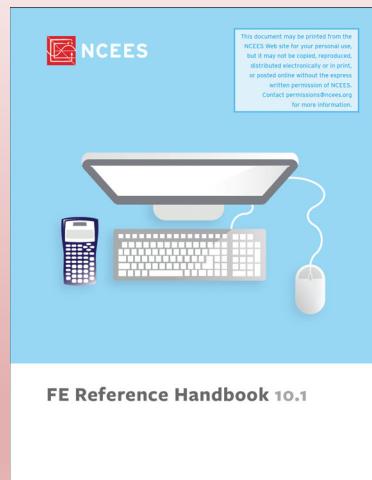
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1. FE REFERENCE HANDBOOK



- This is the official reference material for the computer-based FE exam beginning in July 2020.
- Review the handbook prior to exam day and familiarize yourself with the charts, formulas, tables, and other reference information provided.
- An electronic version will be available onscreen during the actual exam.
- Printed copies will not be allowed in the exam room.
- **10.1 edition ©2021**

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OLD BOOKS FE REFERENCE HANDBOOK



DO NOT USE!!!

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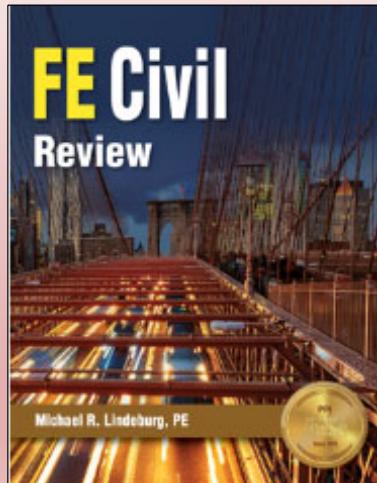
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2. THE “CURRENT” FE REVIEW MANUAL

PROFESSIONAL PUBLICATIONS, INC. (PPI)



\$149 (2017)

The Most Comprehensive Book for the Computer-Based FE Civil Exam

FE Civil Review (FECER1P) features include:

- equations, figures, and tables for version 9.4 of the *NCEES FE Reference Handbook* to familiarize you with the reference you'll have on exam day
- 16 diagnostic exams to assess your grasp of knowledge areas covered in each chapter
- concise explanations supported by exam-like example problems, with step-by-step solutions to reinforce the theory and application of fundamental concepts

... and more

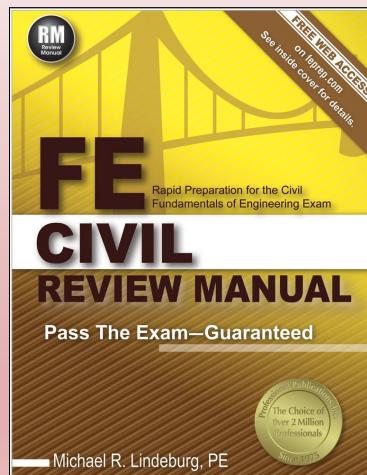
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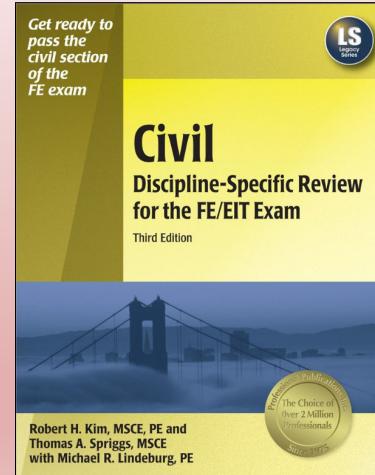
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OLD BOOKS



\$160.00 (2014)

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\$65.00 (2009)

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3. NCEES FE PRACTICE EXAM

The screenshot shows a web browser window with three tabs: "FE Civil Practice Exam - Exam Prep", "Examinations", and "Pearson Professional Centers-Live". The main content area is titled "Exam Prep" and features a product card for the "FE Civil Practice Exam". The card includes a small thumbnail image of the book cover, the title "FE Civil Practice Exam", the price "\$29.95", the ISBN "978-1-932613-97-1", and a blue "Login to purchase" button. Below the card, there is a red link "Preview this book now!" and a short description: "This book contains 100 questions and solutions to familiarize you with the FE Civil exam format and content. This edition has 34 new items, including alternative question types such as fill-in-the-blank and matching. © 2020". At the bottom of the page, there is a section titled "When will this book be updated? How do I know if I have the current version?" with a bulleted list of information.

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Other Exam Prep Materials

- Other materials available from PPI
- Other materials from other publishers
- Lots of old (pre-2020) stuff
- FE review courses

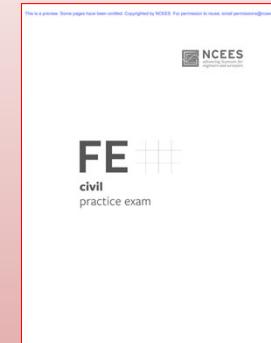
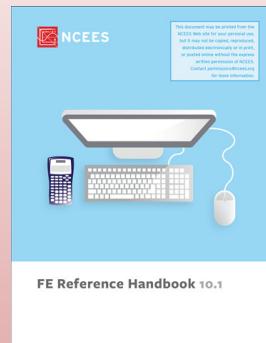
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The FE Books You NEED



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Mr. Miyagi's rules to pass FE Exam



Rule No. 1 - Study...

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6. FE EXAM PERFORMANCE BY CE STUDENTS

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Current FE Pass Rates, per NCEES

Pass rates

FE pass rates are shown for the January–June or July–December population (updated in July and January, respectively). The pass rates below represent FE examinees who

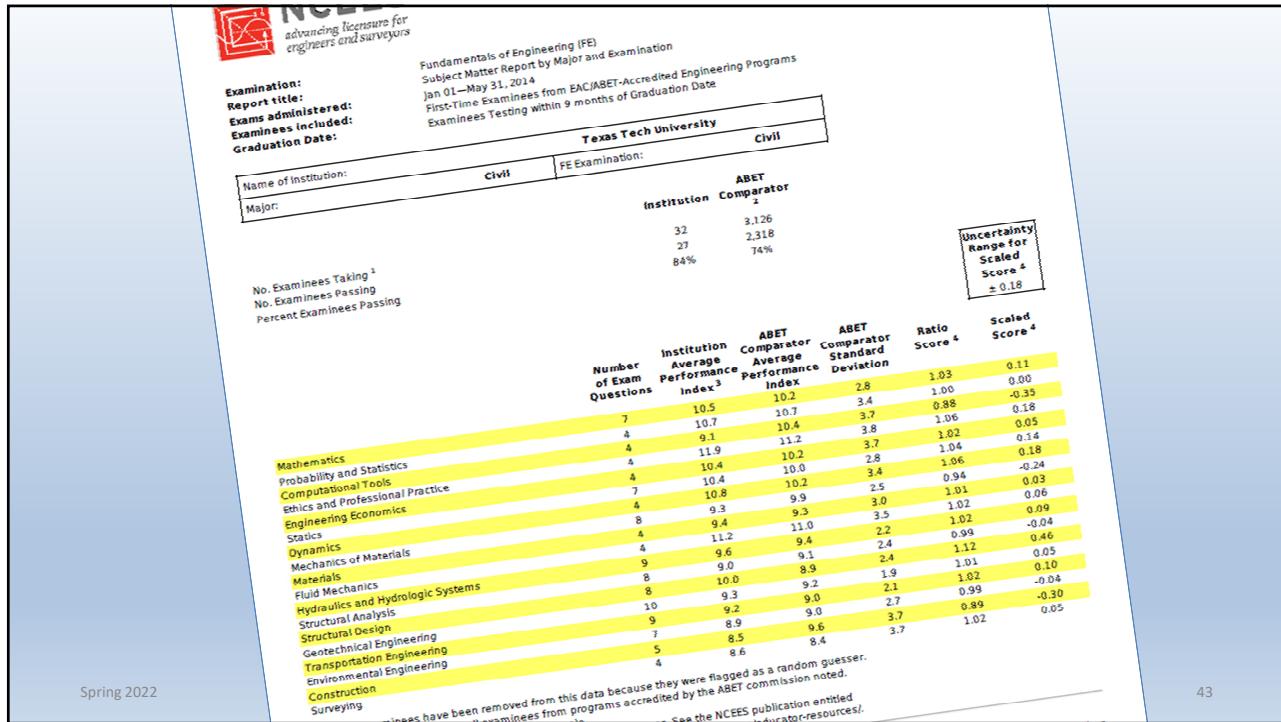
- Took the FE exam for the first time
- Attended EAC/ABET-accredited engineering programs
- Took the FE exam within 12 months of graduation

Exam	Volume	Pass rate	Format	Availability	Last updated
FE Chemical	701	74%	CBT	Year round	July 2021
FE Civil	6049	70%	CBT	Year round	July 2021
FE Electrical and Computer	1189	72%	CBT	Year round	July 2021
FE Environmental	780	79%	CBT	Year round	July 2021
FE Industrial and Systems	254	67%	CBT	Year round	July 2021
FE Mechanical	3632	75%	CBT	Year round	July 2021
FE Other Disciplines	910	63%	CBT	Year round	July 2021

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TTU Carnegie Comparators

Carnegie Classification: Prof+A&S/HGC

Professions plus arts & sciences, high graduate coexistence

"60–79 percent of bachelor's degree majors were in professional fields, and graduate degrees were observed in at least half of the fields corresponding to undergraduate majors."

Institution	Location	Control	Institution	Location	Control
Auburn University Main Campus	Auburn, Alabama	Public	Lehigh University	Bethlehem, Pennsylvania	Private not-for-profit
Bonita College	New York, New York	Private not-for-profit	Long Island University-Brooklyn Campus	Brooklyn, New York	Private not-for-profit
California State University-Los Angeles	Los Angeles, California	Public	Long Island University-C W Post Campus	Brookville, New York	Private not-for-profit
Capella University	Minneapolis, Minnesota	Private for-profit	Marywood University	Scranton, Pennsylvania	Private not-for-profit
Clemson University	Clemson, South Carolina	Public	Mississippi College	Clinton, Mississippi	Private not-for-profit
Cooper Union for the Advancement of Science and Art	New York, New York	Private not-for-profit	Mississippi State University	Mississippi State, Mississippi	Public
Drexel University	Philadelphia, Pennsylvania	Private not-for-profit	Montana State University	Bozeman, Montana	Public
Duquesne University	Pittsburgh, Pennsylvania	Private not-for-profit	New Jersey Institute of Technology	Newark, New Jersey	Public
East Carolina University	Greenville, North Carolina	Public	New Mexico State University-Main Campus	Las Cruces, New Mexico	Public
Eastern Michigan University	Ypsilanti, Michigan	Public	Northcentral University	Prescott Valley, Arizona	Private for-profit
Emerson College	Boston, Massachusetts	Private not-for-profit	Ohio University-Main Campus	Athens, Ohio	Public
Florida Atlantic University	Boca Raton, Florida	Public	Oklahoma State University-Main Campus	Stillwater, Oklahoma	Public
Florida Institute of Technology	Melbourne, Florida	Private not-for-profit	Oregon State University	Corvallis, Oregon	Public
Florida International University	Miami, Florida	Public	Pennsylvania State University-Main Campus	University Park, Pennsylvania	Public
Georgia Institute of Technology-Main Campus	Atlanta, Georgia	Public	Polytechnic Institute of New York University	Brooklyn, New York	Private not-for-profit
Howard University	Washington, District of Columbia	Private not-for-profit	Pratt Institute-Main	Brooklyn, New York	Private not-for-profit
Illinois Institute of Technology	Chicago, Illinois	Private not-for-profit	Purdue University-Main Campus	West Lafayette, Indiana	Public
Illinois State University	Normal, Illinois	Public	Rensselaer Polytechnic Institute	Troy, New York	Private not-for-profit
Indiana University-Purdue University-Indianapolis	Indianapolis, Indiana	Public	Rochester Institute of Technology	Rochester, New York	Private not-for-profit
Inter American University of Puerto Rico-Metro	San Juan, Puerto Rico	Private not-for-profit	Saint Louis University-Main Campus	Saint Louis, Missouri	Private not-for-profit
Iowa State University	Ames, Iowa	Public	San Jose State University	San Jose, California	Public
Kansas State University	Manhattan, Kansas	Public	Silicon Valley University	San Jose, California	Private not-for-profit
Kent State University Kent Campus	Kent, Ohio	Public	Southern Illinois University Carbondale	Carbondale, Illinois	Public

Carnegie Foundation identifies 72 universities, 47 public and 25 private, for the Prof+A&S/HGC classification. Comparators such as Texas A&M University, The University of Texas at Austin, are "Bal/HGC", "Balanced arts & sciences/professions, high graduate coexistence." Classification is based on data from 2008 and 2010. Note: this differs from the previous NCEES comparator classification, "Carnegie Research/Doctoral Extensive".

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TTU Carnegie Comparators, cont'd

Carnegie Classification: Prof+A&S/HGC

Professions plus arts & sciences, high graduate coexistence

"60–79 percent of bachelor's degree majors were in professional fields, and graduate degrees were observed in at least half of the fields corresponding to undergraduate majors."

Institution	Location	Control	Institution	Location	Control
Temple University	Philadelphia, Pennsylvania	Public	University of Nevada-Las Vegas	Las Vegas, Nevada	Public
Texas A & M International University	Laredo, Texas	Public	University of North Dakota	Grand Forks, North Dakota	Public
Texas Tech University	Lubbock, Texas	Public	University of South Carolina-Columbia	Columbia, South Carolina	Public
The University of Alabama	Tuscaloosa, Alabama	Public	University of Southern Mississippi	Hattiesburg, Mississippi	Public
The University of Texas at El Paso	El Paso, Texas	Public	University of the West	Rosemead, California	Private not-for-profit
University of Akron Main Campus	Akron, Ohio	Public	University of Toledo	Toledo, Ohio	Public
University of Alabama in Huntsville	Huntsville, Alabama	Public	University of Wyoming	Laramie, Wyoming	Public
University of Arkansas	Fayetteville, Arkansas	Public	Utah State University	Logan, Utah	Public
University of Central Florida	Orlando, Florida	Public	Western Illinois University	Macomb, Illinois	Public
University of Cincinnati-Main Campus	Cincinnati, Ohio	Public	Western Michigan University	Kalamazoo, Michigan	Public
University of Idaho	Moscow, Idaho	Public	Wheelock College	Boston, Massachusetts	Private not-for-profit
University of Maine	Orono, Maine	Public	Wichita State University	Wichita, Kansas	Public
University of Nebraska-Lincoln	Lincoln, Nebraska	Public	Worcester Polytechnic Institute	Worcester, Massachusetts	Private not-for-profit

Carnegie Foundation identifies 72 universities, 47 public and 25 private, for the Prof+A&S/HGC classification. Comparators such as Texas A&M University, The University of Texas at Austin, are "Bal/HGC", "Balanced arts & sciences/professions, high graduate coexistence." Classification is based on data from 2008 and 2010. Note: this differs from the previous NCEES comparator classification, "Carnegie Research/Doctoral Extensive".

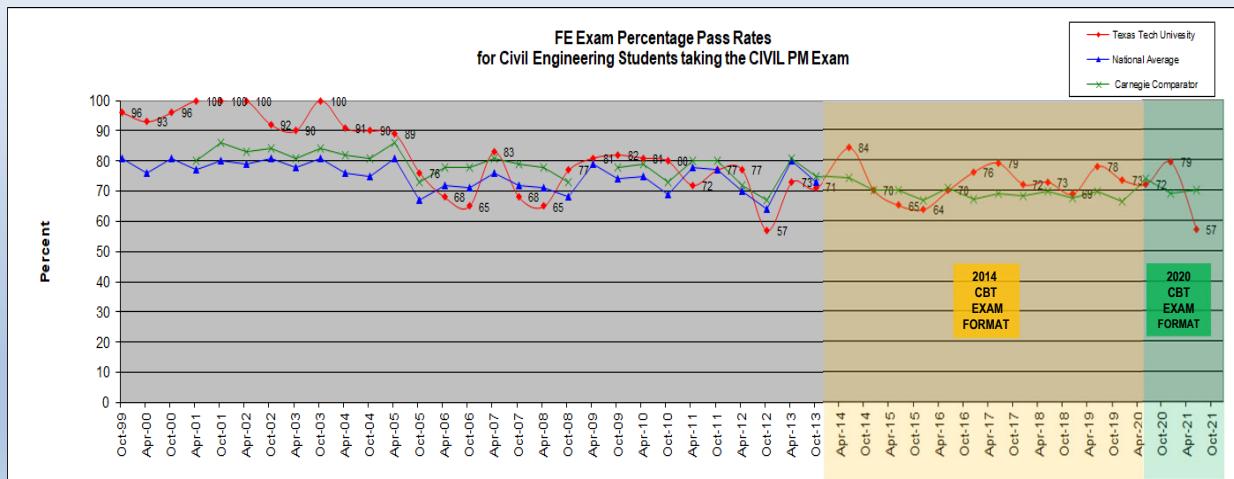
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20+ YEARS FE PASS RATE DATA

TTU Civil Engineering Program Performance



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FE Exam Discussion

SLIDE 46

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FE EXAM DISCUSSION
CECE DEPARTMENT
TEXAS TECH UNIVERSITY

7. PROFESSIONAL PHILOSOPHY TOWARD THE FE EXAM

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FE Exam Discussion

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FE Exam Initiative (1999)

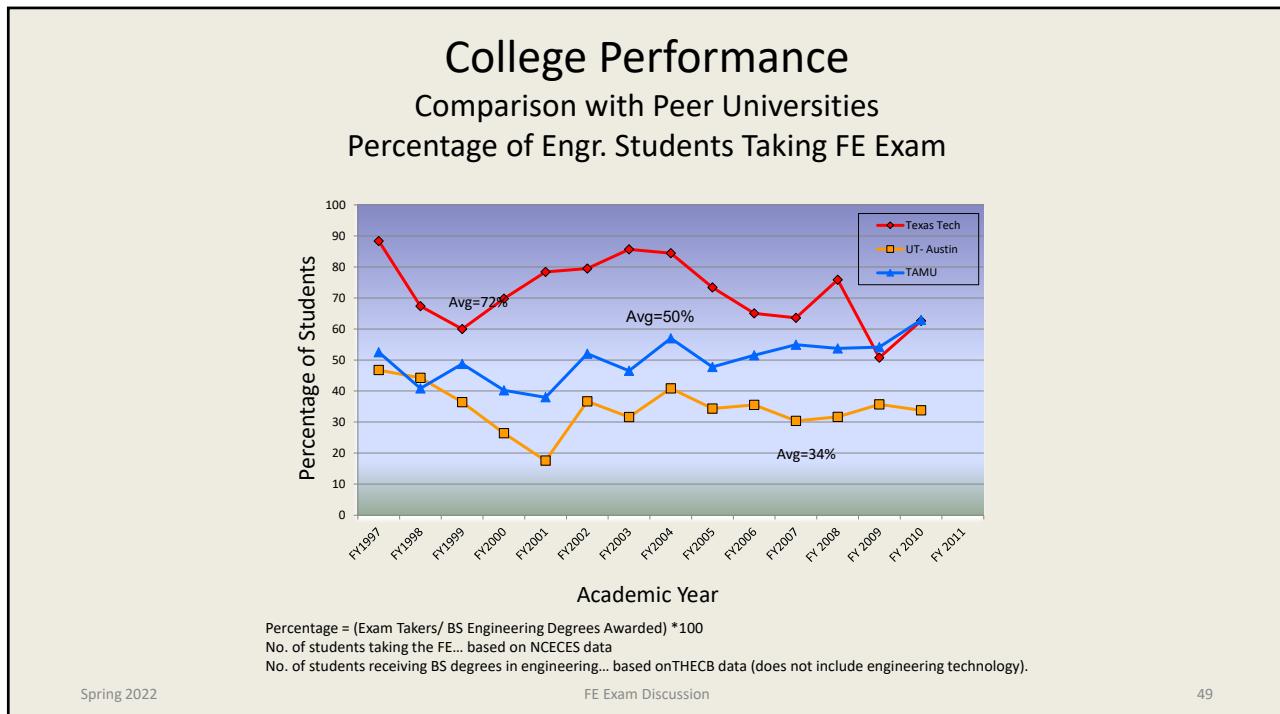
The College of Engineering encourages our engineering students to graduate with their engineering degrees and become licensed professional engineers. ***We strongly encourage those students who intend to take the exam to prepare for it and take it successfully.*** We do not encourage students to approach the FE Exam in cavalier fashion, to make “trial runs” at the exam, or to take the exam without adequately preparing for it.

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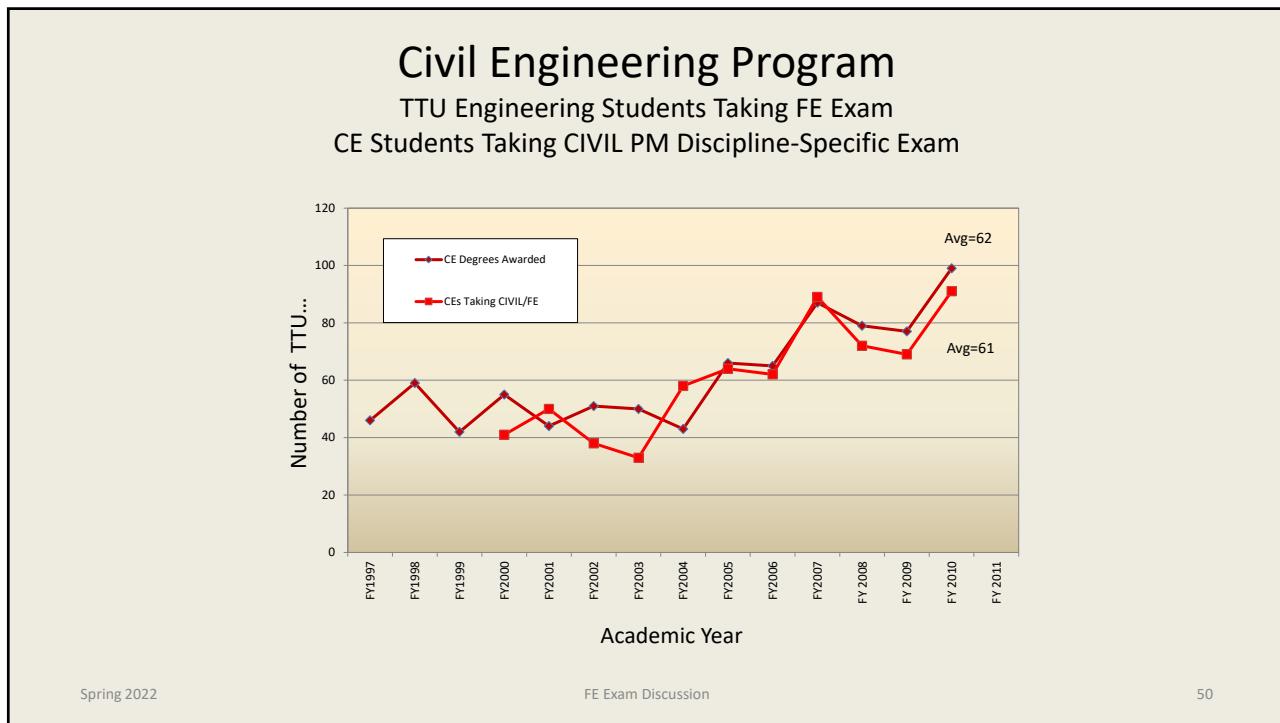
FE Exam Discussion

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FE EXAM DISCUSSION
CECE DEPARTMENT
TEXAS TECH UNIVERSITY

8. EDUCATIONAL PHILOSOPHY TOWARD THE FE EXAM

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CECE Curriculum attention to the FE Exam

1. Share the FE Exam Specification with all CECE instructors, *esp.* for CECE Discipline-Specific topics to promote awareness of the topics relative to the FE Exam
2. CE 4200... students enroll 1 semester *prior* to graduation; focus on FE awareness and relearning/reviewing problem subjects
3. CE 4000... students enroll graduating semester; focus on FE preparation and reviewing problem subjects
4. FE Exam data are part of our ABET accreditation report

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FE Exam Discussion

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Civil Engineering Curriculum

Dynamic Enrollment Management Plan Curriculum for Bachelor of Science Civil Engineering Texas Tech University									
Name: _____						Date Entered COE: _____			
R #: _____						Date Entered CE: _____			
Pre-Entry	Freshman		Sophomore		Junior		Senior		
Term F13 Example Grade A	Math 1451 *Math 1350 or equiv or 7 on MPF	Math 1452 *Math 1451	Math 2450 *Math 1452	Math 3350 *Math 1452	CE 3309 CE 3317 *CE 3305 *Chem 1308 *Chem 1108	CE 3372 CE 3354	CE 4330 See Note D *Last Full Semester	CE 4200 *Sr Standing	
	Chem 1307 Chem 1107 *Chem 1301 or 60+ on CPE	Chem 1308 Chem 1108 *Chem 1307 *Chem 1107	EGR1207	Phys 1408 *Math 1451	ECE 3301 CE 3303 *Math 1452 *CE 2301	IE 2324 *Math 1451 *Math 1452 *Phys 2402	CE 3354 CE 3305 *CE 3305 *CE 3306 *CE 3307 *CE 3308 *CE 3309 *CE 3310 **Math 2450	CE 3340 CE 3341 *CE 3440 *CE 3302 *CE 3321 *CE 3322 *CE 3303 Hist 2301 Pols 2306	CE 4343 *CE 2201 *CE 3341 Design Elective ENGR 2392 See Note C See Note A Oral Comm Creative Arts Multicultural See Note B See Note E CE 4361 *CONE 2302 **CE 3321 & Sr Standing Design Elective See Note E
	Hist 2300	ENGR 1315 **Math 1451	Engl 1302 *Engl 1301	CE 2201 *MATH 1452 & PHYS 1408	CONE 2302 *Math 1451 or equiv. *CE 2301 *Math 2450	CE 3305 *CE 3301 *CE 3301 Hist 2301 Pols 2306	CE 3310 CE 3311 *CE 3308 *CE 3309 *CE 3310 *CE 3311 *CE 3312 *CE 3313 *CE 3305 *CE 3305	Foreign Language Fulfilled: <input type="checkbox"/> YES / <input type="checkbox"/> NO	CE 4000 FE Exam Review

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CE 4200

Professional Engineering Practice Issues

- About 10 percent of the content focuses on FE Exam topics
- Includes a half-length (Mock) FE Exam
- Provides diagnostic information as a pathway to student preparation for the real FE Exam

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FE Exam Discussion

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CE 4000 (formerly, CE 4101)

“The FE Review Course”

- Going toward “Elective” Online Course
- Curriculum Design:
 - Review
 - Re-Learn
 - Learn
- All Topics Covered
- Mock FE (differs from CE 4200)

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FE Exam Discussion

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HOW IT'S DONE...

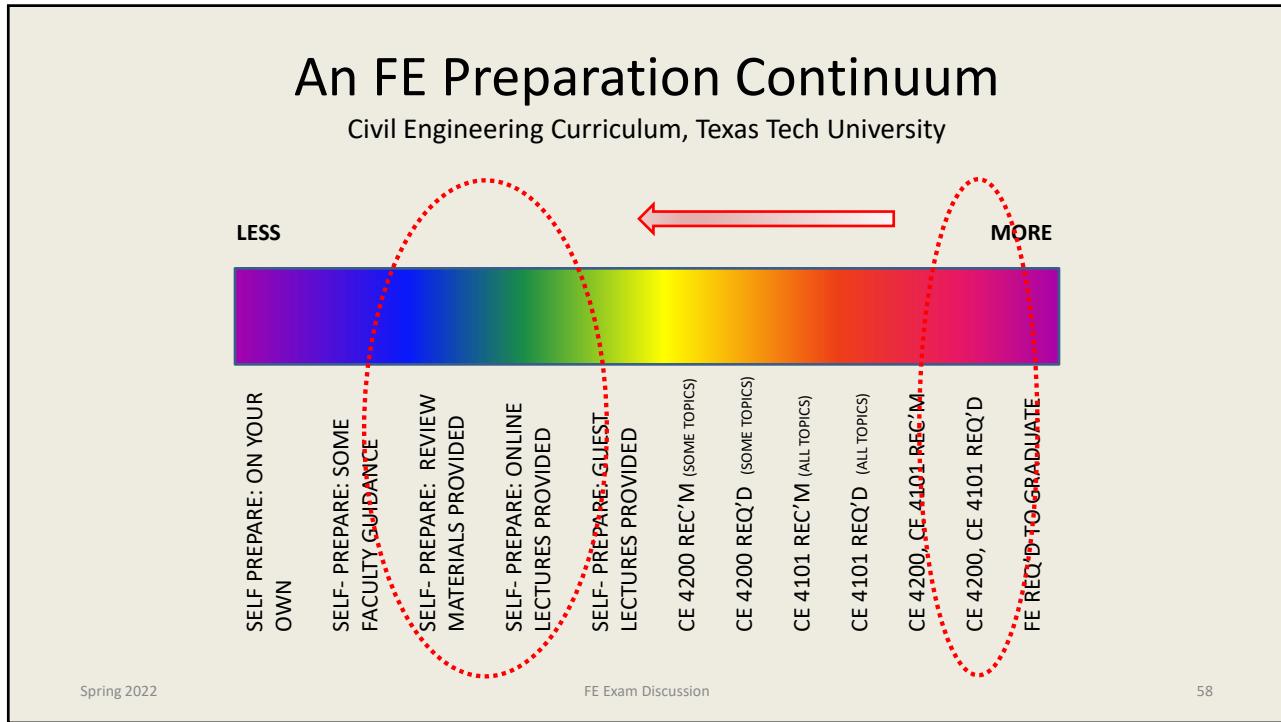
1. Plan to take the FE Exam while you are still a student
2. ONE SEMESTER BEFORE GRADUATION
 1. Learn about the FE Exam as per the introduction in CE 4200
 2. Use CE 4200 Mock FE as a diagnostic exercise, to guide your FE Exam preparation and study
3. YOUR GRADUATING SEMESTER
 1. Take the **FE Review Course**
 2. Focus your study on key topics, review & relearn
 3. Use the CE 4000 Mock FE as confirmation you are ready to take the real FE
 4. When you know the material, take the FE Exam

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FE Exam Discussion

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FE EXAM DISCUSSION
CECE DEPARTMENT
TEXAS TECH UNIVERSITY

END

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FE Exam Discussion

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