

FE EXAM PREPARATION

CE 4200

Professional Engineering Practice Issues

SPRING 2022 Semester

William D. Lawson, P.E., Ph.D.

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Three Assumptions to this Lecture

1. You have taken the Mock FE Exam
2. You have your MFE Score Report
3. You create a Tailored FE Preparation Plan (Bonus HW3)

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NAME: A. Good Student

MOCK FE EXAM
CE 4200 – Professional Engineering Practice Issues
Fall 2021

This document summarizes our CE 4200 class's performance on the Mock FE Exam. Refer to the table below.

No.	Topic (Morning Session)	No. of Questions	Questions You Answered Correctly	No. of Questions You Missed	YOUR PERCENT SCORE	Class Average %	FALL 2018 %	Class Average %	FALL 2019 %	Class Average %	FALL 2020 %	Class Average %	SPRING 2021 %	Class Average %	FALL 2021 %	TTU 3-YR AVERAGE PERCENT (PEERS)	EST. 95% TARGET PASSING SCORE PERCENT (SCALED)
1	Mathematics and Statistics	5	4	1	80%	69	68	69	72	69	61	68	65	66	50	60	
2	Ethics and Professional Practice	3	1	0	33%	52	50	49	51	47	48	51	50	52	46	61	
3	Engineering Economics	5	5	0	100%	53	50	49	51	43	38	63	65	53	50	67	
4	Statics	3	2	1	67%	48	47	41	51	39	45	53	53	47	42	56	
5	Dynamics	4	1	3	25%	59	53	45	47	44	38	31	32	37	34	45	
6	Mechanics of Materials	3	2	1	67%	53	50	49	51	43	38	63	65	53	50	67	
7	Materials	4	4	0	100%	37	30	31	32	36	31	32	31	31	30	30	
8	Fluid Mechanics	4	2	2	50%	40	42	40	43	45	46	48	47	46	40	54	
9	Surveying	7	1	6	14%	26	25	28	28	30	26	28	30	29	29	38	
10	Water Resources & Envir Engr	6	1	5	17%	42	35	36	35	36	36	37	36	37	34	32	
11	Structural Engineering	6	5	1	83%	30	30	30	30	30	30	30	30	30	29	29	
12	Geotechnical Engineering	5	3	2	60%	12	11	10	10	10	10	10	10	10	9	17	
13	Transportation Engineering	4	0	1	0%	43	42	43	41	40	41	40	41	42	42	54	
14	Construction Engineering																
TOTAL																	
PERCENTAGE OF TECH CIVIL ENGR STUDENTS PASSING REAL FE EXAM (3 YR AVG. 2018-2021)																	

KEY TO INTERPRETATION:

1. Your own personal Mock FE Scores are entered in the column labeled "Your Percent Score." Remember, this is the raw percentage of problems you worked correctly.

2. The percentages of TTU CE students who took and passed the real FE Exam during this same period are also listed. For example, 71% passed the real FE. This probably will wonder, "How can I be confident that I am at that level of preparation?" This is

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BONUS ASSIGNMENT 3
Your Personal FE Exam Test Preparation Plan
CE 4200 Professional Practice Issues
50 POINTS

Date Assigned:
Date Due:
Topic:
Type:
Learning Exercise:
elements:

You know something about the FE Exam. You have also taken the Mock FE Exam and your performance on the Mock FE is available to guide you in preparing for the FE Exam. This exercise encourages you to create your own personal, tailored FE Exam test preparation plan. That is, you are to think through and write out how you will prepare such that you successfully pass the FE Exam.

Step 1. Begin by reviewing the FE Exam Test Prep Strategy information on the course website.

Step 2. Review your own Mock FE scores, topic by topic

Step 3. Self-diagnose your Mock FE performance. Note topics on which you did well, poorly and average.

ASSIGNMENT: Create your Tailored FE EXAM Preparation Plan. The plan should contain the following elements:

1. Date you will take the real FE Exam (one date on the calendar)
2. Will you prepare for the FE Exam alone or with a group of friends? If with friends, identify by initials
3. Analysis of your level of preparedness for the FE based on your Mock FE scores
 - a. Topics you performed well on ... and why you think this occurred
 - b. Topics you performed average on ... and why you think this occurred
 - c. Topics you performed poorly on ... and why you think this occurred
4. Statement of your exam preparation approach:
 - a. Statement of effort planned (hours)
 - b. Scheduling self-study, exam review course, practice exam

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HOW TO PREPARE

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Looking back at my mock FE results,

I understand that I really need to change my study habits.

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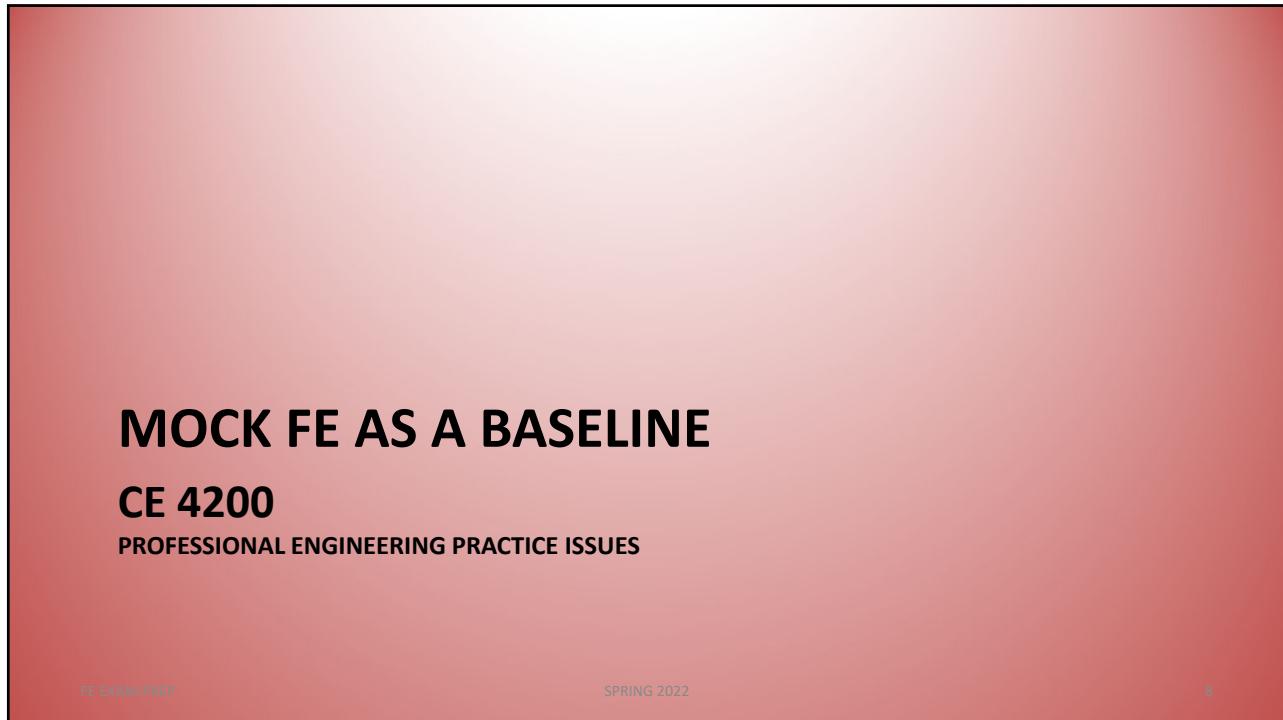
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D/C

For the Mock FE exam, the main goal for me was to get a baseline score to demonstrate to myself how well I would've done on the FE without any preparation whatsoever. I got 33% of the question correct, with 40% in the morning session and 27% in the afternoon session

. Taking the Mock FE |

Exam was a reality check. It showed that I am nowhere near ready to take the actual FE Exam.

I am confident that I can improve my scores with diligent studying and practice. The results show that I need to work fairly hard to achieve desirable scores

ASSESSMENT OF PERFORMANCE

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The topics that I scored average on such as ethics and business practices, fluid mechanics and mathematics because these are topics that are integrated into most aspects of engineering and I have practiced these problems more recently. The topics that I did well in were environmental engineering, hydraulics and hydrologic systems, materials, soil mechanics and foundations, structural analysis and structural design. I believe I did well in these subjects because I have had courses over these subjects within the last 2 semesters and the information was easier to recall.

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My three biggest issues on the afternoon session were SI units, not knowing the reference manual very well, and not completing several of the classes.

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My biggest struggles were definitely the subjects that the classes were from years ago.

For example, I took fluid mechanics my freshman year so I am extremely rusty in that subject.

I did very average on many topics there were many things that I don't remember since I took the classes years ago and just need to review.

I did poorly on statistics which I knew going into I would, I never really cared for statistics. I also did poorly on the topics in which I haven't taken classes in yet or am taking right now.

I am not quite sure why I did well on the ethics portion, that is not even a class I have taken yet but I would assume this is due to common sense and good morals.

I am rusty with these subjects and I will have to review each subject again thoroughly.

FAMILIARITY WITH NCEES *REFERENCE HANDBOOK*

CE 4200

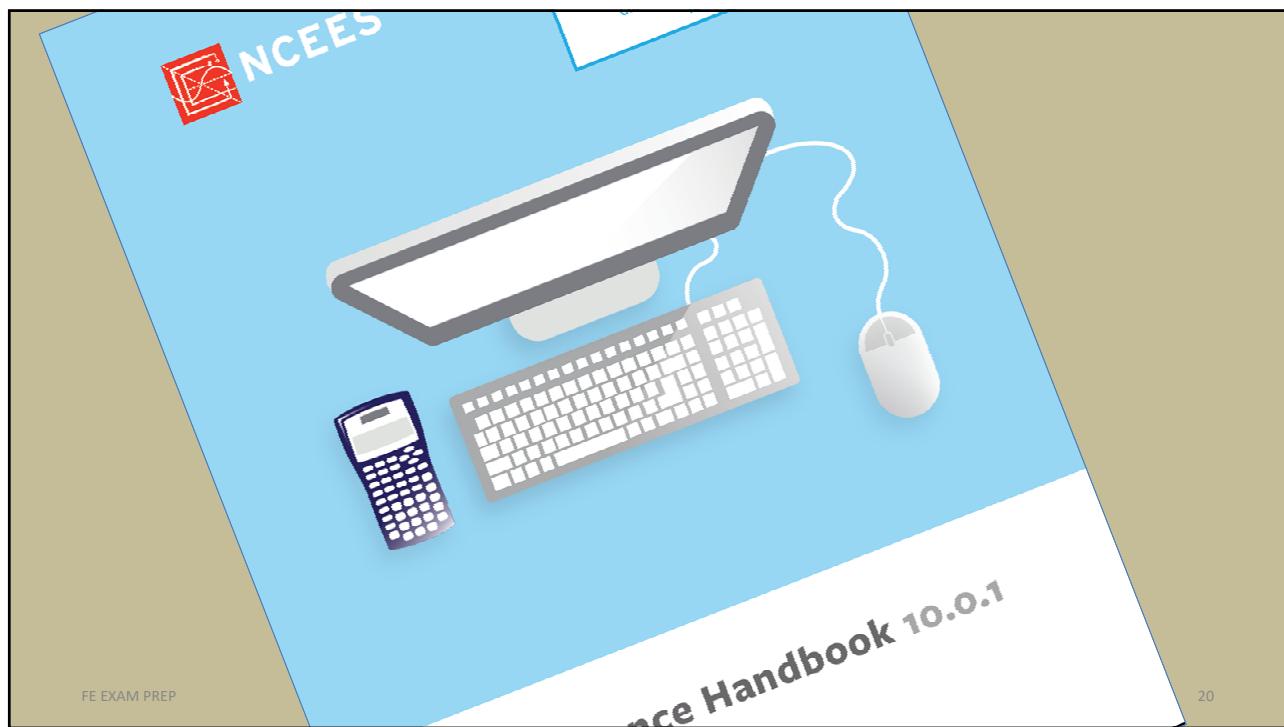
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I went into the Mock FE a little unsure about how I would perform. I looked at videos about how to maneuver through the NCEES booklet so I felt confident that I would be able to the ^{first} equations I needed with ease. That was not the case. The questions were very specific and finding the right equation, or at least what I thought was the right equation, took me several minutes.

Going through the FE handbook for the structures sections was like reading Chinese because I had never seen it before.

The formulas are in
different formats than what I recall and many of these courses I took 2 years ago.

I believe I performed horrible because I was not
prepared and did not study the formulas the reference book gave me. There were certain values I
should've known and I also wasted plenty of time looking and surfing through the FE book not
really knowing where anything was.

I spent a lot of time flipping
through the book trying to find formulas.

I think my largest most consistent problem was that I did not know how to use the NCEES book very well. Despite looking through it a few times before the test to familiarize myself with the layout, it would still take me a long time to find the things I wanted, if I could find them at all. I also felt as though a decent amount of equations were just missing.

PRACTICE EXAMS

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I plan on preparing for the exam by setting aside at least 60 hours. I want to do well on the FE, and I have heard from friends who have already taken it that practice exams were a huge help for them. I plan on ordering one of these NCEES practice exams and using it to gauge my level of readiness after already studying some.

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for three days in a row, and as for preparation strategy I purchased a practice exam from the NCEES website when I registered for my exam. The practice exam is a timed half-length version of the real FE exam.

For my preparation, the exam was beneficial in helping me review the broad amount of information we learn in the civil program and introducing me to the format of the exam.

Although the practice test was timed, I was able to close down the webpage and work through or research the problems as necessary. In researching the different problems, I was also able to find other practice problems which I would work through. The format of the practice test was the same as the real exam. The wording was the same on the practice test and real exam, and allowed me to be knowledgeable on how the problem would be asked and what it would be asking for.

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FE
civil
practice exam

EXAM PREP SCHEDULE

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FE Civil Review Manual, it is recommend to abide by a 63, 86 or a 105-day program. Once I begin to study for the FE exam I will go through the 86-day program. The total amount of time I will spend studying for the exam is 105 days. I will use the *FE Civil Review Manual* to

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I noticed that the PPI website has available resources, like a calendar that schedules out a Preparation Plan based on when I will take the exam. I plan on having a combination of studying one topic each week for the FE Exam and the schedule provided by the PPI website. I will also

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My fiancé, [REDACTED] is holding me accountable for making sure I am adequately prepared for the exam. She stated, “I do not want to pay \$225 again for a test you should pass the first time!”

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My wife will be the person helping to keep me accountable for the time I have set aside to study for this test. There is no way I will get around studying when I have her hounding me.

My friend [REDACTED], will be holding me accountable for this exam, he has known [REDACTED] me for most of my life and tries to push me to be the best version of myself. ✓

EXAM DAY RITUALS...

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On the day of the exam I will wake up early after going to bed early and eat a good breakfast. I will not study the night before the exam except for maybe a brief review. I will come to the exam fueled and prepared for any obstacles. I plan to take the FE in early-mid January.

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I will not drink any alcoholic
drinks for the week leading up to the Exam to allow my mind to be as sharp as possible.

On the exam day, I need to make sure I use my time well. Based on the Mock FE, I realized
that time is going to be a huge factor. I did not feel prepared in that sense.

5. Exam Day strategy: I will not cram the day before. I will attempt to get 6 to 8 hours of sleep the night previous. On the exam day I will start with a small breakfast. Most likely a single bowl of Cap'n Crunch's Peanut Butter Crunch, dry of course, with milk on the ok! | yo

Exam Day Strategy: On the day of the exam I will have had eight-ten hours of sleep, eaten full and nutritious breakfast before, and I will try not to freak out the before the exam so I can be relaxed while taking the exam.

Getting a good nights rest before exam day will be a top priority. The day of the exam I will be sure to eat a good meal before so that I have enough energy throughout the test, as well as managing time to arrive at the test location with plenty of time to get ready to take the test.

On the day of the FE Exam, I will arrive about 1 hour before my scheduled start time to allow enough time to park, check-in, and mentally prepare myself. During the exam, I will spend no more than 3 minutes on each problem, flagging any difficult questions. At the end of each session, I will return to any flagged questions and attempt to answer them.

my day. I will call my parents to get some encouraging words then relax until it's time to prepare my things and leave for the exam.

and each of us will hold the other accountable. Our exam day strategy is to have a 20z cup of coffee with 2 shots of espresso and 8oz of heavy cream. Also, having a good night sleep for 7-8 hours the night before.

wow!!!

For my exam day strategy, I will make sure to get a good amount of rest the night before and eat a large breakfast. I will get to the exam testing center about thirty minutes early to get myself situated and relaxed. I will take the break after the morning session to eat and then finish the rest of the exam.



KEEP
CALM
AND
JUST
DO IT