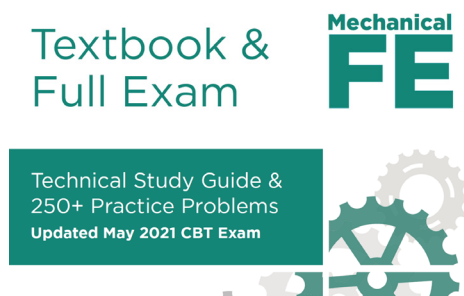


# WELCOME TO THE ENGINEERING PRO GUIDES MECHANICAL FE COURSE

*This document will explain how the course works and our recommendations on how to use the course to pass the FE exam. The course uses multiple teaching methods to enforce your understanding of the necessary key concepts and skills.*

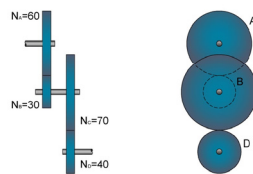
## STEP 1 - READ TEXTBOOK & WORK TEXTBOOK PRACTICE PROBLEMS

You will receive your hard copy textbook in the mail. Shipping is included in your course cost. You will also receive an electronic copy (PDF) of the textbook as well. Please follow the schedule and read the appropriate chapters in the textbook. The practice problems in the hard copy textbook are on the easy to medium level of difficulty.



### 17.5 PRACTICE PROBLEM 5 – GEARS

A train gear configuration is shown in the figure below. The shaft at gear A rotates at 3600 rpm, counterclockwise. The number of teeth for each gear is given in the figure. What is the rotational speed at gear D?



(a) 1030 rpm, counterclockwise

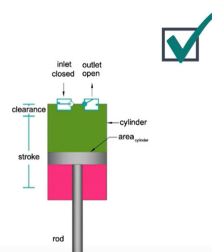
*(Screenshot of textbook cover and textbook practice problem)*

## STEP 2 - WATCH VIDEOS & WORK VIDEO PRACTICE PROBLEMS

Next, watch the on-demand videos. The on-demand videos go over the key concepts and skills that you need to know for the FE exam. These videos are shorter and specific to each concept or skill. There are also videos that show you how to complete the common exam problems.

### Practice Exam Problem 1 – Components

A gas engine has the following properties, Cylinder Bore = 100 mm; Stroke = 125 mm; Speed = 300 rpm; Clearance volume = 5 cm<sup>3</sup>. What is the ideal Otto cycle efficiency? Air:  $k = 1.4$ .



*(Screenshot of sample video)*

## STEPS 1 & 2: COMPLETING PRACTICE EXAM PROBLEMS

In our experience, the people that seem to struggle the most with the FE exam, all seem to have one thing in common. They tend to look at the solutions before challenging themselves to solve a practice exam problem. Don't be afraid to spend 30 minutes solving a single problem. The research you do to solve the problem will be very beneficial in the long run.

## STEP 3 - COMPLETE FINAL EXAM

Once you have completed steps 1 & 2, you should now be ready to take the final exam. The final exam is another teaching method to challenge you. The solutions will be provided to you after you complete the final exam. The exam is given online and is broken up into each of the individual sections tested on the FE exam, there is no hard copy given.

Timing: Time is a very important aspect of this exam. You need to be able to quickly navigate the reference handbook and to be able to solve problems quickly, while maintaining a high degree of accuracy. Please simulate the timing when taking the exam. You should be completing problems within 3 minutes.

## STEP 4 - REVIEW & REPEAT

After your final exam, you may want to revisit sections. You should compare your score on the final exams with those that previously took the class. If you are performing at the median, then you should be on track to pass the exam. If you are scoring below, then you may need to revisit the section.

## COMPARE THE COURSES

	3-Month On-Demand Course	Monthly On-Demand Course
<b>Cost</b>	\$475 (\$158 per month)	\$195 per month
<b>Access Time</b>	3 months	1 month
<b>Free Retake?</b>	Yes*	No**
<b>Hard copy Class Textbook with Shipping</b>	Yes	Yes
<b>On-Demand Videos</b>	46 total hours	46 total hours
<b>On-Demand Practice Problem Videos</b>	250+ problems with video solutions	250+ problems with video solutions
<b>Textbook (PDF)</b>	Yes (150+ problems)	Yes (150+ problems)
<b>Final Exam (PDF)</b>	Yes (110 problems)	Yes (110 problems)
<b>Ask the Author Questions?</b>	Yes	Yes
<b>Class Forum?</b>	Yes	Yes

\* In order to qualify for the free re-take, please provide a diagnostic report. We want to make sure that you are actually taking the exam. A diagnostic report is provided by NCEES if you take the exam and do not pass.

\*\* You can upgrade to the 3-month course for the free re-take and continued access to the class.