HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

Did you pass the exam? *

- Yes
- No

If you did not pass, what was your score out of 80?

Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.
How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- [ ] 2 to 3 years
- [ ] 3 to 4 years
- [ ] 4 to 5 years
- [ ] More than 5 years
- [ ] Other: __________________________________________________________________________

Which references would you recommend for the exam? *

- [ ] Personal study notes and cheat sheets.
- [ ] NCEES HVAC & Refrigeration sample PE exam.
- [ ] Engineering Pro Guides exam prep materials
- [ ] ASHRAE Fundamentals
- [ ] ASHRAE Systems
- [ ] ASHRAE Equipment
- [ ] ASHRAE Refrigeration
- [ ] MERM
- [ ] 6 Minute Solutions
- [ ] PPI Engineering Unit Conversions
- [ ] NFPA 90A/B
- [ ] Other: __________________________________________________________________________
How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
- Very confident (I feel that I knew the correct answers to most of the questions and guessed on not more than 10 questions).
- Confident (I feel confident that I guessed on not more than 15 questions).
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How confident are you in your performance on the PM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

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- Confident (I feel confident that I guessed on not more than 15 questions).
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What were your most confident topics? Select 3.

- [ ] Basic Engineering Practice
- [ ] Thermodynamics
- [ ] Psychrometrics
- [ ] Heat Transfer
- [ ] Fluid Mechanics
- [ ] Energy/Mass Balance
- [ ] Heating/Cooling Loads

- [ ] HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- [ ] HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- [ ] Support Knowledge
What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
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- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
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Additional Comments? Words of advice?

Get familiar with ASHRAE books to look up information. I used NCEES Practice Exam and 6 Minute Solutions.
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- [x] Other: College thermal environmental engineering textbook
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Additional Comments? Words of advice?

The NCEES official practice exam was very indicative of the question style and relative difficulty of the actual exam questions. Use the practice exam as your main guide for what/how to study, and use the MERM and ASHRAE books as your references.
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Additional Comments? Words of advice?

This study guide reduced the exam into 'must-know' topics, which helped me focus my studying in the right areas.

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☐ Other: 

https://docs.google.com/forms/d/1zSQLtcWFRiHLap-L4O6S45iZ22Joi_pZ1XCXj7XrJOY/edit#responses
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Additional Comments? Words of advice?

Adding personal notes to the study guide made this an easy test.
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- [ ] Other: I have been in the trade for more than 20 years but have never been employed as an engineer.

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Additional Comments? Words of advice?

Take as many practice exams as you can in as close to test conditions as possible. Review all the problems you miss after each one.

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What were your most confident topics? Select 3.

- Thermodynamics
- Psychrometrics
- Heat Transfer
- Basic Engineering Practice
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge
What were your least confident topics? Select 3.

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- Thermodynamics
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- Heat Transfer
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Additional Comments? Words of advice?

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Additional Comments? Words of advice?

Take as many sample example as you can. I suggest purchasing the sample exam and the study guide from engproguides and NCEES. I used this study guide as my only prep other than sample exams. I also used the merm and ashrae for reference.
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Additional Comments? Words of advice?

Your guide and practice test were beyond valuable in my success on the PE Exam. Thank you so much!
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☒ No

If you did not pass, what was your score out of 80?

52

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☒ No. 2nd time.

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☐ Fluid Mechanics
☐ Energy/Mass Balance
☐ Heating/Cooling Loads
☐ HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
☐ HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
☐ Support Knowledge

Additional Comments? Words of advice?

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HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

Did you pass the exam? *

- [ ] Yes
- [ ] No

If you did not pass, what was your score out of 80?

Is this your first time taking the exam?

- [ ] Yes, this is my first time taking the PE exam.
- [x] No. 2nd time.
- [ ] No. I have taken the exam more than 2 times.

How many hours did you study for this exam?

- [ ] 0 to 100 hours.
- [ ] 101 to 200 hours.
- [ ] 201 to 300 hours.
- [ ] 301 to 400 hours.
- [ ] 401 to 500 hours.
- [ ] More than 501 hours.
How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- 2 to 3 years
- 3 to 4 years
- 4 to 5 years
- More than 5 years
- Other: ____________________________________________________________

Which references would you recommend for the exam? *

- Personal study notes and cheat sheets.
- NCEES HVAC & Refrigeration sample PE exam.
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- ASHRAE Fundamentals
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- ASHRAE Equipment
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- 6 Minute Solutions
- PPI Engineering Unit Conversions
- NFPA 90A/B
- Other: ____________________________________________________________
How confident are you in your performance on the AM exam? Guessing is defined as not knowing the exact answer (choosing between 2 or more of the solutions).

- Extremely confident (I feel that I knew the correct answers to nearly all of the questions and guessed on less than 5 questions).
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What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge
Basic Engineering Practice

Thermodynamics

Psychrometrics

Heat Transfer

Fluid Mechanics

Energy/Mass Balance

Heating/Cooling Loads

HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)

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Support Knowledge

What were your least confident topics? Select 3.

Additional Comments? Words of advice?

Your study guide and sample exam was very helpful.
HVAC & Refrigeration PE Exam Survey - October 2017

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Did you pass the exam? *

○ Yes
○ No

If you did not pass, what was your score out of 80?

Is this your first time taking the exam?

○ Yes, this is my first time taking the PE exam.
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HVAC & Refrigeration PE Exam Survey - October 2017

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Did you pass the exam? *

- Yes
- No

If you did not pass, what was your score out of 80?

53

Is this your first time taking the exam?

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- No. 2nd time.
- No. I have taken the exam more than 2 times.

How many hours did you study for this exam?

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What were your least confident topics? Select 3.

- Thermodynamics
- Psychrometrics
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)

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HVAC & Refrigeration PE Exam Survey - October 2017

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Did you pass the exam? *

☐ Yes
☐ No

If you did not pass, what was your score out of 80?

38

Is this your first time taking the exam?

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☐ No. 2nd time.
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HVAC & Refrigeration PE Exam Survey - October 2017

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Did you pass the exam? *

- Yes
- No

If you did not pass, what was your score out of 80?

46

Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

How many hours did you study for this exam?

- 0 to 100 hours.
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What were your most confident topics? Select 3.

- [ ] Basic Engineering Practice
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- [ ] HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- [ ] Support Knowledge
What were your least confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
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- Heat Transfer
- **Fluid Mechanics**
- Energy/Mass Balance
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Additional Comments? Words of advice?

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Google Forms
HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

Did you pass the exam? *

- Yes
- No

If you did not pass, what was your score out of 80?

Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

How many hours did you study for this exam?

- 0 to 100 hours.
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- [ ] 2 to 3 years
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- [ ] ASHRAE Refrigeration
- [ ] MERM
- [ ] 6 Minute Solutions
- [ ] PPI Engineering Unit Conversions
- [ ] NFPA 90A/B

- [ ] Other: Testmasters (the book itself was worth its weight in gold, videos were good too.)
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Additional Comments? Words of advice?

Psychrometrics. Learn it, study it, know it. Become one with the Psych Chart!
HVAC & Refrigeration PE Exam Survey - October 2017

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53

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Support Knowledge

Additional Comments? Words of advice?

DO A LOT OF PROBLEMS
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- 4 to 5 years (selected)
-  More than 5 years
-  Other:  

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- ASHRAE Equipment (selected)
- ASHRAE Refrigeration (selected)
- MERM (selected)
- 6 Minute Solutions (not selected)
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- NFPA 90A/B (not selected)
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Additional Comments? Words of advice?

Much appreciated the Master Cheat Sheet you sent me. From there I just added what I felt I needed. Awesome! My friend Nik does the same, for him it is the starting point for his 1st go-to reference that is always within reach.

Consider a web page or blog on test taking techniques. The simple stupid stuff that takes away the stress. For me the biggest help was printing P-h & psychrometric charts on 11x17 then putting colored lines so my rule was always parallel to them and as such I always read the correct value. crazy simple but it put an end to months of frustration doing problems.

I did 2 practice tests early on, got an assessment then studied. 3 months later the tests seemed new to me, forgotten the questions, so it was like having 4 practice exams.

I have a test for a class so I will recommend you, but it might not be until after the holidays.
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What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
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Additional Comments? Words of advice?

I made a psychrometric table of over 2500 points on the psychrometric chart. It took a month to build but come test day it was WAY faster and more accurate than reading the psychrometric chart. I also made tables of air density correction factors based on temperature, and LMTD based on given temp differences. Tables are so fast and accurate. I had 40 minutes to spare in the morning session and well over an hour to spare in the afternoon. Also, there were more economics and less Bernoulli equation questions than I was expecting.
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What were your least confident topics? Select 3.

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- Psychrometrics
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Additional Comments? Words of advice?

to me it's really helpful to have summarized most common constants (about water, air, etc) and formula in a personal note. also it helped to use the alphabet index (in MERM and ashrae handbooks) to search for key words in the question. that saved me a lot of time.

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https://docs.google.com/forms/d/1zSQLtcWFRiHLap-L4O6S45l22Joi_pZ1XCXj_7XrJOY/edit#responses
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Additional Comments? Words of advice?

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HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

Did you pass the exam? *

- Yes
- No

If you did not pass, what was your score out of 80?

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Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
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Additional Comments? Words of advice?

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What were your most confident topics? Select 3.

- Basic Engineering Practice
- Thermodynamics
- Psychrometrics
- Heat Transfer
- Fluid Mechanics
- Energy/Mass Balance
- Heating/Cooling Loads
- HVAC Equipment & Components (cooling towers, pumps, fans, coils, heat exchangers, chillers, compressors, evaporators, refrigerants)
- HVAC Systems & Components (air/fluid distribution, refrigeration, energy recovery, controls)
- Support Knowledge
What were your least confident topics? Select 3.

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Additional Comments? Words of advice?

This content is neither created nor endorsed by Google.
HVAC & Refrigeration PE Exam Survey - October 2017

A survey that gauges your level of preparedness and compares this level with your total number of study hours and references used during the exam.

Did you pass the exam? *

- Yes
- No

If you did not pass, what was your score out of 80?

54

Is this your first time taking the exam?

- Yes, this is my first time taking the PE exam.
- No. 2nd time.
- No. I have taken the exam more than 2 times.

How many hours did you study for this exam?

- 0 to 100 hours.
- 101 to 200 hours.
- 201 to 300 hours.
- 301 to 400 hours.
- 401 to 500 hours.
- More than 501 hours.
How many years of engineering experience do you have at the time of the exam in the fields tested by the exam?

- [ ] 2 to 3 years
- [x] 3 to 4 years
- [ ] 4 to 5 years
- [ ] More than 5 years
- [ ] Other: 

Which references would you recommend for the exam? *

- [x] Personal study notes and cheat sheets.
- [x] NCEES HVAC & Refrigeration sample PE exam.
- [ ] Engineering Pro Guides exam prep materials
- [x] ASHRAE Fundamentals
- [x] ASHRAE Systems
- [x] ASHRAE Equipment
- [x] ASHRAE Refrigeration
- [x] MERM
- [x] 6 Minute Solutions
- [ ] PPI Engineering Unit Conversions
- [ ] NFPA 90A/B
- [ ] Other: 

https://docs.google.com/forms/d/1zSQLtcWFRiHLAp-L4O6S45i22Joi_pZ1XCxj_7XrJOY/edit#responses
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