

Examination: Principles and Practice of Engineering (PE)

Report title: Subject Matter Report by Major and Examination

Exams administered: Jul 01—Dec 31, 2018

Examinees included: First-Time Examinees from EAC/ABET-Accredited Engineering Programs

Name of Institution:			University of Kentucky, Paducah	
	Major:	Mechanical	PE Examination:	Mechanical: HVAC and Refrigeration

			Comparator -	
No. Examinees Taking ¹		1	440	
No. Examinees Passing		1	298	
Percent Examinees Passing		100%	68%	
	Number of Exam Questions	Institution Average Percent Correct	ABET Comparator Average Percent Correct	ABET Comparator Standard Deviation ³
Principles: Basic Engineering Practice	4	100.0	77.9	0.8
Principles: Thermodynamics	4	50.0	66.1	1.0
Principles: Psychrometrics (e.g.; sea level; 5000-ft elevation)	8	87.5	72.6	1.6
Principles: Heat Transfer	7	42.9	71.5	1.3
Principles: Fluid Mechanics	4	50.0	47.3	1.0
Principles: Energy and Mass Balances	5	40.0	69.7	1.2
Applications: Heating and Cooling Loads	8	100.0	77.7	1.4
Applications: Equipment and Components	18	83.3	73.2	2.6
Applications: Systems and Components	18	44.4	61.9	2.8
Applications: Supportive Knowledge	4	25.0	62.5	1.1

ABET

Institution

- 1. $\underline{\mathbf{0}}$ examinees have been removed from this data because they were flagged as a random guesser.
- 2. Comparator includes all examinees from programs accredited by the ABET commission noted.
- 3. The standard deviation is based on number of questions correct, not percentage of questions correct.

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Principles and Practice of Engineering (PE) **Examination:** Report title: Subject Matter Report by Major and Examination

Exams administered: Jul 01-Dec 31, 2018

First-Time Examinees from EAC/ABET-Accredited Engineering Programs Examinees included:

Name of Institution:		University of Kentucky, Paducah	
Major:	Mechanical	PE Examination:	Mechanical: Thermal and Fluids Systems

		Institution	Comparator ²	
No. Examinees Taking ¹		1	365	
No. Examinees Passing		1	245	
Percent Examinees Passing		100%	67%	
	Number of Exam Questions	Institution Average Percent Correct	ABET Comparator Average Percent Correct	ABET Comparator Standard Deviation ³
Principles: Basic Engineering Practice	6	83.3	73.8	1.1
Principles: Fluid Mechanics	6	83.3	57.9	1.5
Principles: Heat Transfer Principles (e.g.; convection; conduction; radiation)	6	66.7	77.2	1.1
Principles: Mass Balance Principles (e.g.; evaporation; dehumidification; mixing)	4	100.0	72.7	1.1
Principles: Thermodynamics	6	100.0	68.1	1.3
Principles: Supportive Knowledge	4	100.0	68.9	0.9
Hydraulic and Fluid Applications: Hydraulic and Fluid Equipment	15	80.0	76.0	2.7
Hydraulic and Fluid Applications: Distribution Systems (e.g.; pipe flow)	9	77.8	62.2	1.8
Energy and Power System Applications: Energy and Power Equipment	8	50.0	67.6	1.8
Energy and Power System Applications: Cooling and Heating (e.g.; capacity; loads; cycles)	6	66.7	60.8	1.6
Energy and Power System Applications: Energy Recovery (e.g.; waste heat; storage)	5	20.0	63.3	1.5
Energy and Power System Applications: Combined Cycles (e.g.; components; efficiency)	5	20.0	56.8	1.4

ABET

Institution

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