

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

Exams administered: Jan 01—Jun 30, 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

No. Examinees Taking <sup>1</sup>		1	448	
No. Examinees Passing		0	328	
Percent Examinees Passing		0%	73%	
	Number of Exam Questions	Institution Average Percent Correct	ABET Comparator Average Percent Correct	ABET Comparator Standard Deviation <sup>3</sup>
Principles: Basic Engineering Practice	4	100.0	76.3	1.0
Principles: Thermodynamics	4	75.0	70.5	1.0
Principles: Psychrometrics (e.g.; sea level; 5000-ft elevation)	8	25.0	76.5	1.6
Principles: Heat Transfer	7	71.4	78.8	1.1
Principles: Fluid Mechanics	3	33.3	74.0	0.8
Principles: Energy and Mass Balances	6	33.3	83.0	1,1
Applications: Heating and Cooling Loads	8	37.5	80.5	1.5
Applications: Equipment and Components	18	50.0	60.0	2.8
Applications: Systems and Components	18	66.7	76.8	2.7
Applications: Supportive Knowledge	4	25.0	62.2	0.9

**ABET** 

Comparator <sup>2</sup>

Institution

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

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

No. Examinees Taking <sup>1</sup>		1	395	
No. Examinees Passing		0	278	
Percent Examinees Passing		0%	70%	
	Number of Exam Questions	Institution Average Percent Correct	ABET Comparator Average Percent Correct	ABET Comparator Standard Deviation <sup>3</sup>
Principles: Basic Engineering Practice	6	83.3	82.1	1.1
Principles: Fluid Mechanics	6	66.7	81.2	1.0
Principles: Heat Transfer Principles (e.g.; convection; conduction; radiation)	6	66.7	75.7	1.3
Principles: Mass Balance Principles (e.g.; evaporation; dehumidification; mixing)	4	50.0	65.5	1.1
Principles: Thermodynamics	6	16.7	62.5	1.4
Principles: Supportive Knowledge	4	75.0	76.6	0.9
Hydraulic and Fluid Applications: Hydraulic and Fluid Equipment	15	46.7	65.7	2.6
Hydraulic and Fluid Applications: Distribution Systems (e.g.; pipe flow)	9	55.6	66.0	1.7
Energy and Power System Applications: Energy and Power Equipment	8	75.0	73.0	1.7
Energy and Power System Applications: Cooling and Heating (e.g.; capacity; loads; cycles)	6	66.7	65.3	1.6
Energy and Power System Applications: Energy Recovery (e.g.; waste heat; storage)	5	80.0	74.6	1.3
Energy and Power System Applications: Combined Cycles (e.g.; components; efficiency)	5	60.0	59.7	1.2

**ABET** 

Comparator <sup>2</sup>

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