

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

Exams administered: Jul 01—Nov 30, 2014

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

Name of Institution: Un		niversity of Kentucky, Paducah	
Major:	Chemical	PE Examination:	Chemical

	comparato:			
No. Examinees Taking ¹		1	176	
No. Examinees Passing		1	132	
Percent Examinees Passing		100%	75%	
	Number of Exam Questions	Institution Average Percent Correct	ABET Comparator Average Percent Correct	ABET Comparator Standard Deviation ³
Mass Energy Balances and Thermodynamics: Mass Balances	8	75.0	61.5	1.9
Mass Energy Balances and Thermodynamics: Energy Balances and Thermodynamics	10	70.0	63.0	1.9
Heat Transfer: Mechanisms	7	71.4	64.7	1.3
Heat Transfer: Applications	6	83.3	62.4	1.4
Kinetics: Reaction Parameters	5	80.0	56.9	1.2
Kinetics: Reactors	4	75.0	57.8	1.1
Fluids: Mechanical-Energy Balance	10	90.0	67.0	2.0
Fluids: Flow and Pressure Measurement Techniques	3	66.7	69.2	0.9
Mass Transfer: Phase Equilibria	4	100.0	67.5	1.1
Mass Transfer: Continuous Vapor-Liquid Contactors	6	50.0	49.4	1.4
Mass Transfer: Miscellaneous Mass Transfer Processes	1	100.0	87.9	0.3
Plant Design and Operation: Economic Considerations	1	100.0	77.0	0.4
Plant Design and Operation: Design	8	87.5	65.7	1.7

ABET

Comparator ²

62.6

69.8

8.0

0.9

Institution

66.7

50.0

- 1. o 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.

TERMS AND CONDITIONS OF DATA USE

Plant Design and Operation: Operation

Environment

Plant Design and Operation: Safety; Health; and

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Exams administered: Jul 01—Nov 30, 2014

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

Name of Institution:			University of Kentucky, Paducah		
	Major:	Mechanical	PE Examination:	Mechanical-Mechanical Systems and Materials	

No. Examinees Taking ¹		1	337	
No. Examinees Passing		0	227	
Percent Examinees Passing		0%	67%	
	Number of Exam Questions	Institution Average Percent Correct	ABET Comparator Average Percent Correct	ABET Comparator Standard Deviation ³
Basic Engineering Practice: Basic Engineering Practice	12	58.3	80.5	1.6
Mechanical Systems & Materials: Principles	5	20.0	46.3	1.4
Mechanical Systems & Materials: Applications	3	66.7	75.6	0.7
Hydraulic & Fluids: Principles	3	33.3	75.6	0.8
Hydraulic & Fluids: Applications	4	100.0	73.3	1.1
Energy & Power Systems: Principles	3	33.3	53.0	0.9
Energy & Power Systems: Applications	3	33.3	54.8	1.0
HVAC & Refrigeration: Principles	4	75.0	76.0	0.9
HVAC & Refrigeration: Applications	3	33.3	52.5	0.9
Principles: Statics (free-body diagrams)	6	33.3	65.7	1.3
Principles: Kinematics (linear & rotational motion)	3	33.3	51.9	1.0
Principles: Dynamics (particle & rigid body)	4	0.0	59.4	1.2
Principles: Materials Properties (physical)	4	25.0	67.3	1.0
Principles: Strength of Materials (stress & strain)	7	71.4	51.9	1.5
Applications: Mechanical Components	4	25.0	61.1	1.0

ABET

Comparator ²

60.1

56.5

49.0

1.1

1.1

1.1

Institution

50.0

25.0

25.0

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TERMS AND CONDITIONS OF DATA USE

Applications: Vibration & Dynamic Analysis

Applications: Joints & Fasteners

Applications: Materials & Process

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