

Examination:	Fundamentals of Engineering (FE)
Report title:	Subject Matter Report by Major and Examination
Exams administered:	Jul 01—Dec 31, 2017
Examinees included:	First-Time Examinees from EAC/ABET-Accredited Engineering Programs
Graduation Date:	Examinees testing more than 12 months after graduation date

Name of Institution:		University of Kentucky,	Paducah
Major:	Chemical	FE Examination:	Chemical
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	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	186
No. Examinees Passing	1	135
Percent Examinees Passing	100%	73%

Uncertainty Range for Scaled Score<sup>4</sup> ± 1.00

	Number of Exam Questions	Institution Average Performance Index <sup>3</sup>	ABET Comparator Average Performance Index	ABET Comparator Standard Deviation	Ratio Score <sup>4</sup>	Scaled Score <sup>4</sup>
Mathematics	8	15.0	10.6	3.3	1.42	1.33
Probability and Statistics	4	8.1	11.0	3.5	0.74	-0.83
Engineering Sciences	4	10.0	10.3	3.7	0.97	-0.08
Computational Tools	4	10.1	10.6	3.3	0.95	-0.15
Materials Science	4	6.6	10.2	3.3	0.65	-1.09
Chemistry	8	15.0	10.6	3.0	1.42	1.47
Fluid Mechanics/Dynamics	8	11.1	10.1	2.7	1.10	0.37
Thermodynamics	8	9.2	9.8	2.4	0.94	-0.25
Material/Energy Balances	8	7.5	9.7	2.9	0.77	-0.76
Heat Transfer	8	10.7	10.0	2.7	1.07	0.26
Mass Transfer and Separation	8	9.2	9.4	2.4	0.98	-0.08
Chemical Reaction Engineering	8	7.9	9.3	2.5	0.85	-0.56
Process Design and Economics	8	6.5	9.7	3.0	0.67	-1.07
Process Control	5	7.6	9.1	3.3	0.84	-0.45
Safety, Health, and Environment	5	15.0	9.5	3.7	1.58	1.49
Ethics and Professional Practice	2	15.0	11.4	5.2	1.32	0.69

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. Performance index is based on a 0–15 scale.

 These scores are made available for assessment purposes. See the NCEES publication entitled Using the FE as an Outcomes Assessment Tool at http://ncees.org/licensure/educator-resources/.

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Graduation Date:	Examinees testing more than 12 months after graduation date

Name of Institution:	U	niversity of Kentucky, Paduca	h
Major:	Mechanical	FE Examination:	Civil
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	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	15
No. Examinees Passing	0	5
Percent Examinees Passing	0%	33%

Uncertainty
Range for
Scaled
Score <sup>4</sup>
± 1.00

	Number of Exam Questions	Institution Average Performance Index <sup>3</sup>	ABE I Comparator Average Performance Index	ABET Comparator Standard Deviation	Ratio Score <sup>4</sup>	Scaled Score <sup>4</sup>
Mathematics	7	5.7	9.4	3.1	0.61	-1.19
Probability and Statistics	4	9.2	9.2	3.1	1.00	0.00
Computational Tools	4	7.7	10.2	3.5	0.75	-0.71
Ethics and Professional Practice	4	15.0	9.7	2.8	1.55	1.89
Engineering Economics	4	6.1	9.0	2.0	0.68	-1.45
Statics	7	6.0	8.1	2.4	0.74	-0.88
Dynamics	4	8.3	10.3	3.6	0.81	-0.56
Mechanics of Materials	7	5.7	8.7	1.8	0.66	-1.67
Materials	4	0.0	8.6	3.0	0.00	-2.87
Fluid Mechanics	4	15.0	9.5	3.0	1.58	1.83
Hydraulics and Hydrologic Systems	8	7.0	8.1	1.8	0.86	-0.61
Structural Analysis	6	7.5	7.7	2.5	0.97	-0.08
Structural Design	6	7.1	7.8	1.4	0.91	-0.50
Geotechnical Engineering	9	7.9	8.1	1.7	0.98	-0.12
Transportation Engineering	8	7.3	7.2	2.3	1.01	0.04
Environmental Engineering	6	9.3	7.9	2.3	1.18	0.61
Construction	4	15.0	7.5	4.9	2.00	1.53
Surveying	4	7.3	7.8	4.9	0.94	-0.10

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Graduation Date:	Examinees testing more than 12 months after graduation date

Name of Institution:		University of Kentucky, Paducah	
Major:	Mechanical	FE Examination:	Mechanical
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	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	821
No. Examinees Passing	1	640
Percent Examinees Passing	100%	78%

Uncertainty Range for Scaled Score <sup>4</sup> ± 1.00

	Number of Exam Questions	Institution Average Performance Index <sup>3</sup>	ABET Comparator Average Performance Index	ABET Comparator Standard Deviation	Ratio Score <sup>4</sup>	Scaled Score <sup>4</sup>
Mathematics	6	9.9	10.5	3.1	0.94	-0.19
Probability and Statistics	4	6.7	9.6	3.3	0.70	-0.88
Computational Tools	3	15.0	11.3	3.9	1.33	0.95
Ethics and Professional Practice	3	8.1	11.2	3.8	0.72	-0.82
Engineering Economics	3	8.2	10.4	4.1	0.79	-0.54
Electricity and Magnetism	3	15.0	10.2	4.2	1.47	1.14
Statics	8	7.3	9.7	2.4	0.75	-1.00
Dynamics, Kinematics, and Vibrations	9	8.1	9.7	2.1	0.84	-0.76
Mechanics of Materials	8	9.4	9.5	2.1	0.99	-0.05
Material Properties and Processing	8	7.5	9.8	2.2	0.77	-1.05
Fluid Mechanics	9	8.4	9.7	2.3	0.87	-0.57
Thermodynamics	13	8.8	9.3	1.5	0.95	-0.33
Heat Transfer	9	9.6	9.6	2.3	1.00	0.00
Measurements, Instrumentation, and Controls	5	7.5	9.0	3.1	0.83	-0.48
Mechanical Design and Analysis	9	9.9	9.0	2.5	1.10	0.36

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