

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01—May 31, 2014  
**Examinees included:** First-Time Examinees from EAC/ABET-Accredited Engineering Programs  
**Graduation Date:** Examinees testing more than 9 months after graduation date

Name of Institution:	University of Kentucky, Lexington		
Major:	Civil	FE Examination:	Civil

	Institution	ABET Comparator 2
No. Examinees Taking <sup>1</sup>	1	231
No. Examinees Passing	0	127
Percent Examinees Passing	0%	55%

**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	7	15.0	10.0	2.9	1.50	1.72
Probability and Statistics	4	15.0	10.1	3.3	1.49	1.48
Computational Tools	4	7.4	10.5	3.7	0.70	-0.84
Ethics and Professional Practice	4	7.0	11.4	3.8	0.61	-1.16
Engineering Economics	4	6.4	10.1	3.7	0.63	-1.00
Statics	7	10.6	9.8	3.0	1.08	0.27
Dynamics	4	6.6	10.2	3.5	0.65	-1.03
Mechanics of Materials	8	7.4	9.6	2.8	0.77	-0.79
Materials	4	15.0	9.3	3.1	1.61	1.84
Fluid Mechanics	4	15.0	10.7	3.9	1.40	1.10
Hydraulics and Hydrologic Systems	9	8.8	8.9	2.3	0.99	-0.04
Structural Analysis	8	0.0	8.6	2.8	0.00	-3.07
Structural Design	8	5.1	8.4	2.6	0.61	-1.27
Geotechnical Engineering	10	8.4	8.5	1.9	0.99	-0.05
Transportation Engineering	9	6.7	8.3	2.4	0.81	-0.67
Environmental Engineering	7	7.9	8.4	2.8	0.94	-0.18
Construction	5	5.8	9.3	3.8	0.62	-0.92
Surveying	4	0.0	7.3	3.9	0.00	-1.87

1. 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.
4. 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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Name of Institution: <b>University of Kentucky, Lexington</b>	
Major: <b>Electrical</b>	FE Examination: <b>Electrical and Computer</b>

	Institution	ABET Comparator 2
No. Examinees Taking <sup>1</sup>	2	242
No. Examinees Passing	2	185
Percent Examinees Passing	100%	76%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> ± 0.71
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	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	11	13.1	10.4	2.7	1.26	1.00
Probability and Statistics	4	15.0	10.5	3.6	1.43	1.25
Ethics and Professional Practice	3	15.0	12.3	3.8	1.22	0.71
Engineering Economics	3	12.1	10.1	4.2	1.20	0.48
Properties of Electrical Materials	6	12.6	10.9	3.0	1.16	0.57
Engineering Sciences	7	12.1	11.7	3.3	1.03	0.12
Circuit Analysis	11	13.1	10.0	2.6	1.31	1.19
Linear Systems	5	11.9	9.3	3.4	1.28	0.76
Signal Processing	6	10.3	9.4	2.9	1.10	0.31
Electronics	7	12.3	9.6	2.7	1.28	1.00
Power	9	12.1	9.9	2.5	1.22	0.88
Electromagnetics	6	12.2	10.3	3.3	1.18	0.58
Control Systems	6	12.2	9.3	2.7	1.31	1.07
Communications	6	9.8	9.3	2.6	1.05	0.19
Computer Networks	4	15.0	10.3	3.8	1.46	1.24
Digital Systems	7	8.9	9.4	2.8	0.95	-0.18
Computer Systems	5	10.9	9.0	3.7	1.21	0.51
Software Development	4	11.6	10.5	4.5	1.10	0.24

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Name of Institution: <b>University of Kentucky, Lexington</b>	
Major: <b>Mechanical</b>	FE Examination: <b>Mechanical</b>

	Institution	ABET Comparator 2
No. Examinees Taking <sup>1</sup>	1	342
No. Examinees Passing	1	269
Percent Examinees Passing	100%	79%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 1.00$
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	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	10.7	3.2	0.93	-0.25
Probability and Statistics	5	9.6	10.5	3.5	0.91	-0.26
Computational Tools	3	15.0	11.3	4.1	1.33	0.90
Ethics and Professional Practice	3	15.0	12.0	3.7	1.25	0.81
Engineering Economics	3	7.9	10.6	4.4	0.75	-0.61
Electricity and Magnetism	3	15.0	11.4	3.6	1.32	1.00
Statics	9	15.0	10.2	2.8	1.47	1.71
Dynamics, Kinematics, and Vibrations	9	11.2	9.8	2.2	1.14	0.64
Mechanics of Materials	11	11.2	9.7	2.1	1.15	0.71
Material Properties and Processing	8	10.8	9.9	2.3	1.09	0.39
Fluid Mechanics	9	15.0	10.0	2.1	1.50	2.38
Thermodynamics	14	10.3	9.5	1.6	1.08	0.50
Heat Transfer	11	15.0	9.7	2.4	1.55	2.21
Measurement, Instrumentation, and Controls	6	11.1	8.6	3.6	1.29	0.69
Mechanical Design and Analysis	10	11.4	8.7	2.6	1.31	1.04

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