

**Examination:** Fundamentals of Engineering (FE)

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

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

	Institution	nstitution ABET Comparator <sup>2</sup> 1 236
	mstitution	Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	236
No. Examinees Passing	1	108
Percent Examinees Passing	100%	46%

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

	Number of Exam Questions	Institution Average Performance Index <sup>3</sup>		ABET Comparator Standard Deviation	Ratio Score <sup>4</sup>	Scaled Score <sup>4</sup>
Mathematics	7	8.5	9.2	2.8	0.92	-0.25
Probability and Statistics	4	10.6	9.1	3.6	1.16	0.42
Computational Tools	4	10.0	9.3	3.8	1.08	0.18
Ethics and Professional Practice	4	15.0	11.4	3.8	1.32	0.95
Engineering Economics	4	15.0	9.4	3.6	1.60	1.56
Statics	7	8.9	8.8	2.9	1.01	0.03
Dynamics	4	15.0	9.7	3.8	1.55	1.39
Mechanics of Materials	7	10.1	9.2	2.8	1.10	0.32
Materials	4	7.3	8.3	3.8	0.88	-0.26
Fluid Mechanics	4	8.9	10.0	3.6	0.89	-0.31
Hydraulics and Hydrologic Systems	8	15.0	8.7	2.2	1.72	2.86
Structural Analysis	6	7.6	8.1	2.9	0.94	-0.17
Structural Design	6	7.0	8.2	2.8	0.85	-0.43
Geotechnical Engineering	9	10.0	8.5	1.9	1.18	0.79
Transportation Engineering	8	8.4	8.3	2.0	1.01	0.05
Environmental Engineering	6	7.1	8.1	3.1	0.88	-0.32
Construction	4	15.0	9.1	4.0	1.65	1.48
Surveying	4	7.9	7.0	4.0	1.13	0.23

- 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.
- 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/.

## TERMS AND CONDITIONS OF DATA USE

This report contains confidential and proprietary NCEES data. The report itself may not be provided to third parties or used for any purpose other than that contemplated by NCEES and the recipient of this report. The information contained in this report however may be shared with accrediting bodies so long as the report recipient expressly informs the accrediting body that the information is confidential and proprietary and may not be used for any purpose unrelated to the accreditation review of the institution or program in question.

By using any of the information contained in this report the report recipient agrees to respect and be bound by these terms conditions and limitations regarding the use of NCEES data. Your cooperation is appreciated.



**Examination:** Fundamentals of Engineering (FE)

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

Name of Institution:		Centucky, Lexington	
Major:	Electrical	FE Examination:	Electrical and Computer

	Institution	ABET Comparator <sup>2</sup>
		Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	271
No. Examinees Passing	1	195
Percent Examinees Passing	100%	72%

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

						± 1.00
	Number of Exam Questions	Institution Average Performance Index <sup>3</sup>		ABET Comparator Standard Deviation	Ratio Score <sup>4</sup>	Scaled Score <sup>4</sup>
Mathematics	11	10.0	10.0	2.6	1.00	0.00
Probability and Statistics	4	6.7	10.3	3.3	0.65	-1.09
Ethics and Professional Practice	3	7.6	12.2	3.7	0.62	-1.24
Engineering Economics	3	15.0	10.1	4.3	1.49	1.14
Properties of Electrical Materials	4	9.9	11.1	3.1	0.89	-0.39
Engineering Sciences	6	10.0	11.3	3.4	0.88	-0.38
Circuit Analysis	10	7.6	9.6	2.6	0.79	-0.77
Linear Systems	5	7.5	9.5	3.2	0.79	-0.63
Signal Processing	5	8.0	9.4	3.1	0.85	-0.45
Electronics	7	9.9	9.5	2.5	1.04	0.16
Power	8	11.5	9.5	2.4	1.21	0.83
Electromagnetics	5	9.4	10.0	3.3	0.94	-0.18
Control Systems	6	7.1	8.8	2.5	0.81	-0.68
Communications	5	15.0	8.9	2.3	1.69	2.65
Computer Networks	3	8.9	9.9	3.8	0.90	-0.26
Digital Systems	7	7.5	9.1	2.7	0.82	-0.59
Computer Systems	4	6.5	8.5	4.3	0.76	-0.47
Software Development	4	9.4	9.8	4.4	0.96	-0.09

- 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.
- 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/.

## TERMS AND CONDITIONS OF DATA USE

This report contains confidential and proprietary NCEES data. The report itself may not be provided to third parties or used for any purpose other than that contemplated by NCEES and the recipient of this report. The information contained in this report however may be shared with accrediting bodies so long as the report recipient expressly informs the accrediting body that the information is confidential and proprietary and may not be used for any purpose unrelated to the accreditation review of the institution or program in question.

By using any of the information contained in this report the report recipient agrees to respect and be bound by these terms conditions and limitations regarding the use of NCEES data. Your cooperation is appreciated.



**Examination:** Fundamentals of Engineering (FE)

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

Name of Institution:	Univ	ersity of Kentucky, Lexin	gton
Major:	Mechanical	FE Examination:	Mechanical

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	313
No. Examinees Passing	1	252
Percent Examinees Passing	100%	81%

Uncertainty
Range for
Scaled
Score 4
± 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	15.0	10.7	3.2	1.40	1.34
Probability and Statistics	4	15.0	10.6	3.2	1.42	1.38
Computational Tools	3	15.0	11.1	4.1	1.35	0.95
Ethics and Professional Practice	3	15.0	11.9	3.7	1.26	0.84
Engineering Economics	3	9.3	10.9	3.7	0.85	-0.43
Electricity and Magnetism	3	15.0	10.7	4.1	1.40	1.05
Statics	8	8.7	10.4	2.7	0.84	-0.63
Dynamics, Kinematics, and Vibrations	9	11.0	10.2	2.5	1.08	0.32
Mechanics of Materials	8	9.3	9.9	2.4	0.94	-0.25
Material Properties and Processing	8	15.0	10.0	2.3	1.50	2.17
Fluid Mechanics	9	15.0	10.7	2.5	1.40	1.72
Thermodynamics	13	11.4	9.7	1.8	1.18	0.94
Heat Transfer	9	11.4	9.7	2.3	1.18	0.74
Measurements, Instrumentation, and Controls	5	9.9	9.2	3.5	1.08	0.20
Mechanical Design and Analysis	9	7.7	9.0	3.0	0.86	-0.43

- 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.
- 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/.

## TERMS AND CONDITIONS OF DATA USE

This report contains confidential and proprietary NCEES data. The report itself may not be provided to third parties or used for any purpose other than that contemplated by NCEES and the recipient of this report. The information contained in this report however may be shared with accrediting bodies so long as the report recipient expressly informs the accrediting body that the information is confidential and proprietary and may not be used for any purpose unrelated to the accreditation review of the institution or program in question.

By using any of the information contained in this report the report recipient agrees to respect and be bound by these terms conditions and limitations regarding the use of NCEES data. Your cooperation is appreciated.