



NCEES

Examination: Fundamentals of Engineering (FE)
Report title: Subject Matter Report by Major and Examination
Exams administered: Jul 01 – Dec 31, 2022
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:	Agricultural	FE Examination:	Other Disciplines

	Institution	ABET Comparator ²
No. Examinees Taking ¹	1	2
No. Examinees Passing	0	1
Percent Examinees Passing	0%	50%

Uncertainty Range for Scaled Score ⁴ ± 1.00
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	Number of Exam Questions	Institution Average Performance Index ³	ABET Comparator Average Performance Index	ABET Comparator Standard Deviation	Ratio Score ⁴	Scaled Score ⁴
Mathematics	8	8.3	11.7	3.4	0.71	-1.00
Probability and Statistics	6	7.7	11.4	3.7	0.68	-1.00
Chemistry	5	8.0	11.5	3.5	0.70	-1.00
Instrumentation and Controls	4	8.0	11.5	3.5	0.70	-1.00
Engineering Ethics and Societal Impacts	5	15.0	15.0	0.0	1.00	—
Safety, Health, and Environment	6	7.6	11.3	3.7	0.67	-1.00
Engineering Economics	6	9.7	9.8	0.1	0.99	-1.00
Statics	9	7.9	9.7	1.8	0.81	-1.00
Dynamics	9	9.1	12.1	3.0	0.75	-1.00
Strength of Materials	9	6.7	9.2	2.5	0.73	-1.00
Materials	6	8.1	8.6	0.5	0.94	-1.00
Fluid Mechanics	12	7.2	9.5	2.3	0.76	-1.00
Basic Electrical Engineering	6	8.1	11.6	3.5	0.70	-1.00
Thermodynamics and Heat Transfer	9	7.4	9.5	2.1	0.78	-1.00

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- Performance index is based on a 0–15 scale.
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Name of Institution:	University of Kentucky, Lexington		
Major:	Civil	FE Examination:	Civil

	Institution	ABET Comparator ²
No. Examinees Taking ¹	4	719
No. Examinees Passing	2	377
Percent Examinees Passing	50%	52%

Uncertainty Range for Scaled Score ⁴ ± 0.50
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	Number of Exam Questions	Institution Average Performance Index ³	ABET Comparator Average Performance Index	ABET Comparator Standard Deviation	Ratio Score ⁴	Scaled Score ⁴
Mathematics and Statistics	8	9.7	8.9	2.2	1.09	0.36
Ethics and Professional Practice	4	11.9	10.3	3.7	1.16	0.43
Engineering Economics	5	7.9	9.2	3.1	0.86	-0.42
Statics	8	8.0	8.8	2.7	0.91	-0.30
Dynamics	4	11.4	8.8	3.7	1.30	0.70
Mechanics of Materials	7	9.7	8.8	2.4	1.10	0.37
Materials	5	9.8	8.9	2.6	1.10	0.35
Fluid Mechanics	6	9.6	9.0	3.0	1.07	0.20
Surveying	6	8.6	8.6	2.6	1.00	0.00
Water Resources and Environmental Engineering	10	10.2	8.9	1.9	1.15	0.68
Structural Engineering	10	8.2	8.5	1.9	0.96	-0.16
Geotechnical Engineering	10	8.5	8.6	2.0	0.99	-0.05
Transportation Engineering	9	9.2	8.6	2.0	1.07	0.30
Construction Engineering	8	9.1	8.9	2.8	1.02	0.07

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

	Institution	ABET Comparator ²
No. Examinees Taking ¹	3	547
No. Examinees Passing	2	318
Percent Examinees Passing	67%	58%

Uncertainty Range for Scaled Score ⁴ ± 0.58
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	Number of Exam Questions	Institution Average Performance Index ³	ABET Comparator Average Performance Index	ABET Comparator Standard Deviation	Ratio Score ⁴	Scaled Score ⁴
Mathematics	11	11.2	9.3	2.4	1.20	0.79
Probability and Statistics	4	11.2	9.6	3.6	1.17	0.44
Ethics and Professional Practice	4	12.7	10.9	3.8	1.17	0.47
Engineering Economics	5	13.1	9.6	3.1	1.36	1.13
Properties of Electrical Materials	4	9.8	9.8	3.5	1.00	0.00
Circuit Analysis (DC and AC Steady State)	11	10.5	8.9	2.1	1.18	0.76
Linear Systems	5	9.0	9.0	3.2	1.00	0.00
Signal Processing	5	9.1	8.9	2.7	1.02	0.07
Electronics	7	10.0	8.9	2.2	1.12	0.50
Power Systems	8	9.5	9.1	2.3	1.04	0.17
Electromagnetics	4	11.6	8.6	3.3	1.35	0.91
Control Systems	6	7.4	8.8	2.6	0.84	-0.54
Communications	5	11.3	8.6	2.8	1.31	0.96
Computer Networks	4	9.1	9.4	3.5	0.97	-0.09
Digital Systems	8	11.1	9.0	2.4	1.23	0.88
Computer Systems	5	9.7	8.3	2.9	1.17	0.48
Software Engineering	4	10.4	9.1	4.0	1.14	0.33

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

	Institution	ABET Comparator ²
No. Examinees Taking ¹	7	952
No. Examinees Passing	5	654
Percent Examinees Passing	71%	69%

Uncertainty Range for Scaled Score ⁴ ± 0.38
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	Number of Exam Questions	Institution Average Performance Index ³	ABET Comparator Average Performance Index	ABET Comparator Standard Deviation	Ratio Score ⁴	Scaled Score ⁴
Mathematics	6	11.6	9.7	2.9	1.20	0.66
Probability and Statistics	4	8.3	9.6	3.6	0.86	-0.36
Ethics and Professional Practice	4	10.3	10.8	3.5	0.95	-0.14
Engineering Economics	4	8.5	10.1	3.4	0.84	-0.47
Electricity and Magnetism	5	9.5	9.8	3.0	0.97	-0.10
Statics	9	9.7	9.5	2.3	1.02	0.09
Dynamics, Kinematics, and Vibrations	10	9.1	9.3	2.2	0.98	-0.09
Mechanics of Materials	9	9.6	9.2	2.1	1.04	0.19
Material Properties and Processing	7	7.9	9.6	2.7	0.82	-0.63
Fluid Mechanics	10	8.6	9.4	2.3	0.91	-0.35
Thermodynamics	10	9.3	9.0	1.9	1.03	0.16
Heat Transfer	7	8.7	9.2	2.7	0.95	-0.19
Measurements, Instrumentation, and Controls	5	9.2	8.7	3.0	1.06	0.17
Mechanical Design and Analysis	10	8.7	8.8	2.5	0.99	-0.04

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