

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 within 9 months of Graduation Date

Name of Institution:	University of Kentucky, Paducah		
Major:	Chemical	FE Examination:	Chemical

	Institution	ABET Comparator 2
No. Examinees Taking ¹	3	693
No. Examinees Passing	3	575
Percent Examinees Passing	100%	83%

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	9	9.6	11.0	3.1	0.87	-0.45
Probability and Statistics	4	12.9	10.3	3.3	1.25	0.79
Engineering Sciences	4	13.2	10.8	3.2	1.22	0.75
Computational Tools	6	13.1	11.0	3.5	1.19	0.60
Materials Science	4	11.2	10.9	3.0	1.03	0.10
Chemistry	8	10.3	10.9	3.1	0.94	-0.19
Fluid Mechanics/Dynamics	8	12.5	10.2	2.4	1.23	0.96
Thermodynamics	8	9.5	9.6	1.9	0.99	-0.05
Material/Energy Balances	8	9.4	9.8	2.4	0.96	-0.17
Heat Transfer	9	13.1	10.2	2.4	1.28	1.21
Mass Transfer and Separation	10	11.9	9.8	2.2	1.21	0.95
Chemical Reaction Engineering	9	11.6	9.7	2.4	1.20	0.79
Process Design and Economics	8	8.7	9.5	2.8	0.92	-0.29
Process Control	7	11.2	10.3	3.1	1.09	0.29
Safety, Health and Environment	6	9.4	9.0	3.3	1.04	0.12
Ethics and Professional Practice	2	7.0	11.4	5.3	0.61	-0.83

- 0 examinees have been removed from this data because they were flagged as a random guesser.
- Comparator includes all examinees from programs accredited by the ABET commission noted.
- 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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Name of Institution: University of Kentucky, Paducah	
Major: Mechanical	FE Examination: Mechanical

	Institution	ABET Comparator 2
No. Examinees Taking ¹	2	2,316
No. Examinees Passing	2	1,976
Percent Examinees Passing	100%	85%

Uncertainty Range for Scaled Score ⁴ ± 0.71
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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	9.1	10.8	3.1	0.84	-0.55
Probability and Statistics	5	12.3	10.6	3.3	1.16	0.52
Computational Tools	3	11.0	11.3	4.1	0.97	-0.07
Ethics and Professional Practice	3	11.2	12.0	3.8	0.93	-0.21
Engineering Economics	3	9.0	10.5	4.2	0.86	-0.36
Electricity and Magnetism	3	15.0	11.1	3.8	1.35	1.03
Statics	9	9.2	10.2	2.6	0.90	-0.38
Dynamics, Kinematics, and Vibrations	9	9.1	10.0	2.1	0.91	-0.43
Mechanics of Materials	11	13.1	9.8	2.2	1.34	1.50
Material Properties and Processing	8	8.3	10.1	2.3	0.82	-0.78
Fluid Mechanics	9	12.2	10.1	2.1	1.21	1.00
Thermodynamics	14	9.2	9.6	1.6	0.96	-0.25
Heat Transfer	11	10.8	9.9	2.1	1.09	0.43
Measurement, Instrumentation, and Controls	6	11.4	9.3	3.4	1.23	0.62
Mechanical Design and Analysis	10	11.7	8.9	2.5	1.31	1.12

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