



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2022  
**Examinees included:** First-Time Examinees from EAC/ABET-Accredited Engineering Programs  
**Graduation Date:** Examinees Testing within 12 months of Graduation Date

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

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	600
No. Examinees Passing	0	424
Percent Examinees Passing	0%	71%

<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	7.1	10.1	3.3	0.70	-0.91
Probability and Statistics	4	9.6	10.2	3.6	0.94	-0.17
Engineering Sciences	4	9.5	9.8	3.5	0.97	-0.09
Materials Science	4	5.0	10.0	3.2	0.50	-1.56
Chemistry and Biology	7	5.9	9.7	2.8	0.61	-1.36
Fluid Mechanics/Dynamics	8	8.7	9.4	2.3	0.93	-0.30
Thermodynamics	8	8.4	9.3	2.0	0.90	-0.45
Material/Energy Balances	10	6.8	8.9	2.2	0.76	-0.95
Heat Transfer	8	8.8	9.4	2.5	0.94	-0.24
Mass Transfer and Separation	8	8.5	9.3	2.1	0.91	-0.38
Solids Handling	3	7.6	10.1	3.7	0.75	-0.68
Chemical Reaction Engineering	7	0.0	9.5	2.5	0.00	-3.80
Economics	4	6.6	10.1	3.4	0.65	-1.03
Process Design	7	11.1	9.7	2.5	1.14	0.56
Process Control	4	8.4	9.6	3.2	0.88	-0.38
Safety, Health, and Environment	5	6.9	9.8	3.3	0.70	-0.88
Ethics and Professional Practice	3	15.0	12.0	4.3	1.25	0.70

- 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 <https://ncees.org/education/outcomes-assessment/>.

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

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	9	3,491
No. Examinees Passing	5	2,463
Percent Examinees Passing	56%	71%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 0.33$
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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	8.1	9.8	2.8	0.83	-0.61
Probability and Statistics	4	9.7	9.8	3.3	0.99	-0.03
Ethics and Professional Practice	4	9.8	10.8	3.6	0.91	-0.28
Engineering Economics	4	9.2	10.1	3.6	0.91	-0.25
Electricity and Magnetism	5	8.0	9.3	3.0	0.86	-0.43
Statics	9	8.5	9.3	2.2	0.91	-0.36
Dynamics, Kinematics, and Vibrations	10	8.7	9.3	2.1	0.94	-0.29
Mechanics of Materials	9	8.7	9.1	1.9	0.96	-0.21
Material Properties and Processing	7	8.9	9.4	2.4	0.95	-0.21
Fluid Mechanics	10	9.7	9.2	2.0	1.05	0.25
Thermodynamics	10	8.3	9.0	1.8	0.92	-0.39
Heat Transfer	7	9.8	9.5	2.5	1.03	0.12
Measurements, Instrumentation, and Controls	5	8.2	9.1	2.8	0.90	-0.32
Mechanical Design and Analysis	10	8.3	9.2	2.1	0.90	-0.43

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