



# 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 more than 12 months after 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	269
No. Examinees Passing	1	200
Percent Examinees Passing	100%	74%

<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	7.8	10.2	3.3	0.76	-0.73
Probability and Statistics	4	15.0	10.6	3.6	1.42	1.22
Engineering Sciences	4	8.1	10.2	3.5	0.79	-0.60
Materials Science	4	15.0	9.9	3.4	1.52	1.50
Chemistry and Biology	7	6.9	10.0	3.1	0.69	-1.00
Fluid Mechanics/Dynamics	8	8.8	9.8	2.7	0.90	-0.37
Thermodynamics	8	9.4	9.3	2.1	1.01	0.05
Material/Energy Balances	10	7.3	9.0	2.3	0.81	-0.74
Heat Transfer	8	10.3	9.8	2.7	1.05	0.19
Mass Transfer and Separation	8	8.0	9.3	2.4	0.86	-0.54
Solids Handling	3	9.4	10.0	3.9	0.94	-0.15
Chemical Reaction Engineering	7	8.0	9.5	2.7	0.84	-0.56
Economics	4	7.4	9.9	3.9	0.75	-0.64
Process Design	7	9.7	9.7	2.8	1.00	0.00
Process Control	4	15.0	9.4	3.9	1.60	1.44
Safety, Health, and Environment	5	8.4	9.5	3.9	0.88	-0.28
Ethics and Professional Practice	3	15.0	11.7	4.7	1.28	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>	3	982
No. Examinees Passing	1	690
Percent Examinees Passing	33%	70%

**Uncertainty  
 Range for  
 Scaled  
 Score <sup>4</sup>**  
 ± 0.58

	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	7.3	9.8	3.0	0.74	-0.83
Probability and Statistics	4	5.0	9.6	3.5	0.52	-1.31
Ethics and Professional Practice	4	7.7	11.3	3.6	0.68	-1.00
Engineering Economics	4	7.6	10.5	3.5	0.72	-0.83
Electricity and Magnetism	5	6.8	9.2	3.0	0.74	-0.80
Statics	9	7.7	9.5	2.3	0.81	-0.78
Dynamics, Kinematics, and Vibrations	10	7.4	9.5	2.2	0.78	-0.95
Mechanics of Materials	9	6.5	9.1	2.0	0.71	-1.30
Material Properties and Processing	7	8.8	9.5	2.4	0.93	-0.29
Fluid Mechanics	10	8.2	9.3	2.1	0.88	-0.52
Thermodynamics	10	8.0	9.0	1.9	0.89	-0.53
Heat Transfer	7	6.4	9.4	2.6	0.68	-1.15
Measurements, Instrumentation, and Controls	5	8.0	8.8	2.9	0.91	-0.28
Mechanical Design and Analysis	10	7.1	8.9	2.5	0.80	-0.72

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