



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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:	Civil

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	3
No. Examinees Passing	0	2
Percent Examinees Passing	0%	67%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 1.00$
--

	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 and Statistics	8	6.5	8.2	1.2	0.79	-1.42
Ethics and Professional Practice	4	8.4	10.9	2.9	0.77	-0.86
Engineering Economics	5	10.0	11.6	2.4	0.86	-0.67
Statics	8	9.0	9.1	0.7	0.99	-0.14
Dynamics	4	5.7	10.1	3.8	0.56	-1.16
Mechanics of Materials	7	8.3	8.7	0.6	0.95	-0.67
Materials	5	10.8	9.6	1.4	1.13	0.86
Fluid Mechanics	6	8.0	8.1	0.3	0.99	-0.33
Surveying	6	8.4	8.9	0.4	0.94	-1.25
Water Resources and Environmental Engineering	10	9.8	10.3	0.5	0.95	-1.00
Structural Engineering	10	7.3	8.5	0.9	0.86	-1.33
Geotechnical Engineering	10	7.0	8.2	0.9	0.85	-1.33
Transportation Engineering	9	8.6	8.3	0.2	1.04	1.50
Construction Engineering	8	8.9	9.0	0.1	0.99	-1.00

- 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/>.

## 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 may be shared with accrediting bodies as 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.



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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:	Chemical	FE Examination:	Chemical

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	2	240
No. Examinees Passing	2	161
Percent Examinees Passing	100%	67%

Uncertainty Range for Scaled Score <sup>4</sup> $\pm 0.71$
--

	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	12.3	9.9	3.2	1.24	0.75
Probability and Statistics	4	11.4	10.2	3.5	1.12	0.34
Engineering Sciences	4	8.3	10.0	3.7	0.83	-0.46
Materials Science	4	15.0	10.5	3.4	1.43	1.32
Chemistry and Biology	7	9.2	9.8	3.1	0.94	-0.19
Fluid Mechanics/Dynamics	8	12.3	9.8	2.5	1.26	1.00
Thermodynamics	8	7.3	9.2	2.0	0.79	-0.95
Material/Energy Balances	10	8.8	9.1	2.2	0.97	-0.14
Heat Transfer	8	10.3	10.2	2.8	1.01	0.04
Mass Transfer and Separation	8	8.0	9.2	2.4	0.87	-0.50
Solids Handling	3	12.2	10.0	4.0	1.22	0.55
Chemical Reaction Engineering	7	11.0	9.4	2.8	1.17	0.57
Economics	4	7.8	9.8	3.9	0.80	-0.51
Process Design	7	9.4	9.6	3.0	0.98	-0.07
Process Control	4	4.2	9.4	4.0	0.45	-1.30
Safety, Health, and Environment	5	11.4	9.7	3.7	1.18	0.46
Ethics and Professional Practice	3	15.0	11.1	4.9	1.35	0.80

- 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/>.

#### 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 may be shared with accrediting bodies as 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.



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	7	961
No. Examinees Passing	3	558
Percent Examinees Passing	43%	58%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 0.38$
--

	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 and Statistics	8	8.7	9.1	2.6	0.96	-0.15
Ethics and Professional Practice	4	9.8	10.6	3.6	0.92	-0.22
Engineering Economics	5	8.4	9.6	3.2	0.88	-0.38
Statics	8	8.6	8.8	2.5	0.98	-0.08
Dynamics	4	9.5	9.0	3.7	1.06	0.14
Mechanics of Materials	7	7.6	8.8	2.3	0.86	-0.52
Materials	5	9.4	9.0	2.7	1.04	0.15
Fluid Mechanics	6	7.9	9.4	2.8	0.84	-0.54
Surveying	6	9.9	9.2	2.5	1.08	0.28
Water Resources and Environmental Engineering	10	8.2	8.9	1.9	0.92	-0.37
Structural Engineering	10	8.4	8.5	1.8	0.99	-0.06
Geotechnical Engineering	10	8.0	8.8	1.8	0.91	-0.44
Transportation Engineering	9	8.2	8.8	2.0	0.93	-0.30
Construction Engineering	8	9.1	9.0	2.7	1.01	0.04

- 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/>.

## 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 may be shared with accrediting bodies as 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.



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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:	Environmental

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	29
No. Examinees Passing	1	18
Percent Examinees Passing	100%	62%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 1.00$
--

	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	5	10.3	10.2	3.4	1.01	0.03
Probability and Statistics	4	15.0	10.8	3.5	1.39	1.20
Ethics and Professional Practice	5	10.4	11.2	3.0	0.93	-0.27
Engineering Economics	5	15.0	10.8	3.7	1.39	1.14
Fundamental Principles	7	15.0	10.4	3.0	1.44	1.53
Environmental Chemistry	7	9.0	9.4	2.6	0.96	-0.15
Health Hazards and Risk Assessment	4	7.8	10.5	3.5	0.74	-0.77
Fluid Mechanics and Hydraulics	12	10.5	9.2	2.0	1.14	0.65
Thermodynamics	3	8.0	9.3	4.8	0.86	-0.27
Surface Water Resources and Hydrology	9	10.0	9.6	1.7	1.04	0.24
Groundwater, Soils, and Sediments	8	11.9	9.5	1.8	1.25	1.33
Water and Wastewater	12	11.8	9.0	1.4	1.31	2.00
Air Quality and Control	8	11.4	8.4	2.9	1.36	1.03
Solid and Hazardous Waste	7	15.0	9.8	3.3	1.53	1.58
Energy and Environment	4	10.0	8.6	4.2	1.16	0.33

- 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/>.

## 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 may be shared with accrediting bodies as 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.



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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:	Electrical	FE Examination:	Electrical and Computer

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	4	626
No. Examinees Passing	3	404
Percent Examinees Passing	75%	65%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 0.50$
--

	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	11	10.7	9.4	2.3	1.14	0.57
Probability and Statistics	4	11.6	9.9	3.7	1.17	0.46
Ethics and Professional Practice	4	15.0	11.3	3.7	1.33	1.00
Engineering Economics	5	10.6	9.9	3.2	1.07	0.22
Properties of Electrical Materials	4	12.2	9.5	3.4	1.28	0.79
Circuit Analysis (DC and AC Steady State)	11	9.8	9.2	2.3	1.07	0.26
Linear Systems	5	8.7	8.8	3.1	0.99	-0.03
Signal Processing	5	9.3	9.2	2.7	1.01	0.04
Electronics	7	9.7	8.9	2.5	1.09	0.32
Power Systems	8	9.8	9.3	2.3	1.05	0.22
Electromagnetics	4	11.3	9.3	3.5	1.22	0.57
Control Systems	6	9.1	8.9	2.6	1.02	0.08
Communications	5	10.1	8.7	2.8	1.16	0.50
Computer Networks	4	9.5	9.3	3.1	1.02	0.06
Digital Systems	8	10.1	9.2	2.5	1.10	0.36
Computer Systems	5	7.5	8.6	3.3	0.87	-0.33
Software Engineering	4	10.9	9.4	4.0	1.16	0.38

- 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/>.

## 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 may be shared with accrediting bodies as 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.



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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:	Mechanical	FE Examination:	Mechanical

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	3	1,227
No. Examinees Passing	3	876
Percent Examinees Passing	100%	71%

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	9.5	9.9	2.9	0.96	-0.14
Probability and Statistics	4	9.8	9.4	3.4	1.04	0.12
Ethics and Professional Practice	4	12.1	11.2	3.7	1.08	0.24
Engineering Economics	4	9.3	10.1	3.5	0.92	-0.23
Electricity and Magnetism	5	9.9	9.8	3.0	1.01	0.03
Statics	9	9.2	9.6	2.3	0.96	-0.17
Dynamics, Kinematics, and Vibrations	10	9.6	9.4	2.1	1.02	0.10
Mechanics of Materials	9	8.3	9.2	2.0	0.90	-0.45
Material Properties and Processing	7	9.1	9.3	2.4	0.98	-0.08
Fluid Mechanics	10	9.7	9.4	2.2	1.03	0.14
Thermodynamics	10	8.5	9.2	1.9	0.92	-0.37
Heat Transfer	7	10.4	9.5	2.7	1.09	0.33
Measurements, Instrumentation, and Controls	5	9.3	9.0	3.2	1.03	0.09
Mechanical Design and Analysis	10	9.1	9.1	2.6	1.00	0.00

- 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/>.

## 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 may be shared with accrediting bodies as 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.



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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:	Mechanical	FE Examination:	Other Disciplines

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	2	57
No. Examinees Passing	2	31
Percent Examinees Passing	100%	54%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 0.71$
--

	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	8	9.0	8.8	2.4	1.02	0.08
Probability and Statistics	6	11.7	8.5	2.1	1.38	1.52
Chemistry	5	7.7	8.0	2.3	0.96	-0.13
Instrumentation and Controls	4	8.8	9.4	3.6	0.94	-0.17
Engineering Ethics and Societal Impacts	5	9.7	9.4	3.1	1.03	0.10
Safety, Health, and Environment	6	12.1	9.3	2.6	1.30	1.08
Engineering Economics	6	12.9	8.7	2.6	1.48	1.62
Statics	9	8.9	8.9	2.0	1.00	0.00
Dynamics	9	9.0	9.0	1.9	1.00	0.00
Strength of Materials	9	8.7	9.0	1.5	0.97	-0.20
Materials	6	11.5	9.6	2.8	1.20	0.68
Fluid Mechanics	12	10.3	8.7	1.8	1.18	0.89
Basic Electrical Engineering	6	10.3	8.8	2.9	1.17	0.52
Thermodynamics and Heat Transfer	9	9.2	8.4	1.9	1.10	0.42

- 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/>.

## 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 may be shared with accrediting bodies as 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.



# NCEES

**Examination:** Fundamentals of Engineering (FE)  
**Report title:** Subject Matter Report by Major and Examination  
**Exams administered:** Jan 01 – Jun 30, 2021  
**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:	Mining/Mineral	FE Examination:	Other Disciplines

	Institution	ABET Comparator <sup>2</sup>
No. Examinees Taking <sup>1</sup>	1	6
No. Examinees Passing	1	3
Percent Examinees Passing	100%	50%

<b>Uncertainty Range for Scaled Score <sup>4</sup></b> $\pm 1.00$
--

	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	8	8.4	9.4	2.6	0.89	-0.38
Probability and Statistics	6	9.8	10.1	2.2	0.97	-0.14
Chemistry	5	15.0	9.4	2.6	1.60	2.15
Instrumentation and Controls	4	15.0	11.7	3.3	1.28	1.00
Engineering Ethics and Societal Impacts	5	7.1	9.4	2.7	0.76	-0.85
Safety, Health, and Environment	6	15.0	10.8	3.0	1.39	1.40
Engineering Economics	6	15.0	10.3	3.5	1.46	1.34
Statics	9	10.0	9.4	2.8	1.06	0.21
Dynamics	9	9.8	8.9	1.5	1.10	0.60
Strength of Materials	9	11.3	9.9	2.7	1.14	0.52
Materials	6	8.8	9.7	2.4	0.91	-0.37
Fluid Mechanics	12	8.2	7.8	3.5	1.05	0.11
Basic Electrical Engineering	6	10.0	6.9	3.7	1.45	0.84
Thermodynamics and Heat Transfer	9	6.6	8.2	1.3	0.80	-1.23

- 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/>.

## 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 may be shared with accrediting bodies as 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.