# Comprehensive Academic Program Evaluation (CAPE) Western Kentucky University Supplementary Data Tables

Institution:	
Western Kentucky University (00200200)	
College:	
Ogden College of Science and Engineering	
WKU Department Code:	
EAS	
Data as of:	
30OCT18	
Prepared by:	
The WKU Office of Institutional Research	

# **Enrolled Students by Fall Term**

Enrollments are based on Fall census, and include multiple majors, minors, and certificates.

	Level - Degree Type - Major - CIP				Fall 2014	Fall 2015	Fall 2016	Fall 2017
	Certificate	Lean Sigma, CER (#0452)	150702	1	7	10	12	6
Craduata		Computer Science, MS (#117)	110101	33	30	54	51	39
Graduate	Masters	Engineering Technology Management, MS (#0447)	151501	48	50	71	55	28
		Technology Management, MS (#045)~	151501	6	3	1	1	1
		Architectural Drafting Technology, AS (#207)~	151303	7	2	3	1	0
	Associate	Manufacturing Technology, AS (#257)~	150613	3	3	1	0	0
		Vocational-Industrial and Technical Teacher Education, AS (#296)~	131319	6	2	5	6	10
		Advanced Manufacturing, BS (#506)~	150613	76	88	84	51	10
		Applied Technology, BS (#517)~	150612	1	0	0	0	0
		Architectural Science, BS (#518)	040901	125	125	141	138	134
		Civil Engineering, BS (#534)	140801	191	222	220	211	198
		Computer Information Technology, BS (#555)	110103	256	174	219	276	273
		Computer Science, BS (#629)	110101	194	207	222	196	193
	Baccalaureate	Construction Management, BS (#533)	151001	78	96	114	144	148
		Electrical Engineering, BS (#537)	141001	174	148	132	156	156
Undergraduate		Industrial (Vocational, Career, and Technical) Education, BS (#599)~	131320	4	6	9	5	6
		Industrial Sciences, BS (#571)~	150613	0	0	1	0	0
		Manufacturing Engineering Technology, BS (#5006)	150613	0	0	0	35	72
		Mechanical Engineering, BS (#543)	141901	295	361	360	312	315
		Technology Management, BS (#575)	150612	55	67	75	65	54
		Automation, CER (#1726)	150613	0	0	0	0	1
		CNSS 4011, CER (#1719)	111003	2	0	0	0	2
		Food Processing and Technology, CER (#1718)	011002	0	0	6	3	0
	Certificate	Land Surveying, CER (#1700)	400699	2	4	1	1	0
		Manufacturing Processing and Technology, CER (#1728)	150613	0	0	2	2	3
		Manufacturing and Logistics, CER (#1727)	150613	0	0	2	2	3
		Six Sigma and Quality, CER (#1729)	150613	0	0	1	2	2
All				1,557	1,595	1,734	1,725	1,654

	Level - [	Degree Type - Minor	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
		Computer Science, Minor (#341)	19	13	9	20	29
		Construction Management, Minor (#343)	4	8	11	11	10
		Electrical Engineering, Minor (#354)	6	6	3	3	5
Undergraduate	Non Degree	Floodplain Management, Minor (#361)	7	5	3	3	3
		Industrial Sciences, Minor (#395)	25	27	18	6	3
		Land Surveying, Minor (#405)	11	9	6	9	8
		Systems Engineering, Minor (#476)	0	22	20	42	50
All			72	90	70	94	108

## **Conferrals by Academic Year**

Conferrals awarded are based on Summer-Fall-Spring cycle, and include multiple majors.

		Level - Degree Type - Major - CIP		AY 2013-2014	AY 2014-2015	AY 2015-2016	AY 2016-2017	AY 2017-2018
	Certificate	Lean Sigma, CER (#0452)	150702	0	3	0	6	1
Craduata		Computer Science, MS (#117)	110101	16	7	9	17	25
Graduate	Masters	Engineering Technology Management, MS (#0447)	151501	8	9	6	10	17
		Technology Management, MS (#045)~	151501	3	2	0	0	0
		Architectural Drafting Technology, AS (#207)~	151303	1	1	0	0	0
	Associate	Manufacturing Technology, AS (#257)~	150613	1	0	0	0	0
		Vocational-Industrial and Technical Teacher Education, AS (#296)~	131319	8	9	5	8	15
		Advanced Manufacturing, BS (#506)~	150613	15	11	15	10	3
		Applied Technology, BS (#517)~	150612	2	0	0	0	0
		Architectural Science, BS (#518)	040901	15	18	18	24	32
		Civil Engineering, BS (#534)	140801	24	20	37	27	30
		Computer Information Technology, BS (#555)	110103	52	44	43	37	37
		Computer Science, BS (#629)	110101	13	18	21	19	26
	Baccalaureate	Construction Management, BS (#533)	151001	8	25	19	19	31
	Baccalaurcate	Electrical Engineering, BS (#537)	141001	24	13	22	15	26
Undergraduate		Industrial (Vocational, Career, and Technical) Education, BS (#599)~	131320	3	3	7	2	0
		Industrial Sciences, BS (#571)~	150613	1	0	1	1	0
		Manufacturing Engineering Technology, BS (#5006)	150613	0	0	0	21	26
		Mechanical Engineering, BS (#543)	141901	20	18	36	37	38
		Technology Management, BS (#575)	150612	13	14	25	14	22
		Automation, CER (#1726)	150613	0	0	1	11	17
		CNSS 4011, CER (#1719)	111003	3	1	5	4	0
		Food Processing and Technology, CER (#1718)	011002	0	1	2	3	0
	Certificate	Land Surveying, CER (#1700)	400699	3	1	4	4	11
		Manufacturing Processing and Technology, CER (#1728)	150613	0	0	4	10	16
		Manufacturing and Logistics, CER (#1727)	150613	0	0	5	20	27
		Six Sigma and Quality, CER (#1729)	150613	0	2	7	23	32
All				233	220	292	342	432

	Level - [	Degree Type - Minor	AY 2013-2014	AY 2014-2015	AY 2015-2016	AY 2016-2017	AY 2017-2018
		Computer Science, Minor (#341)	3	0	0	0	3
		Construction Management, Minor (#343)	1	0	0	2	3
		Electrical Engineering, Minor (#354)	0	2	0	0	0
Undergraduate	Non Degree	Floodplain Management, Minor (#361)	1	4	0	1	1
		Industrial Sciences, Minor (#395)	16	17	6	4	3
		Land Surveying, Minor (#405)	2	3	0	0	1
		Systems Engineering, Minor (#476)	15	16	13	23	41
All			38	42	19	30	52

# **Departmental SCHP by Academic Year**

In-Department student credit hours generated by majors, minors, and certificates.

	Level - Major - CIP			Pro	vided Credit Ho	ours	
	•			AY 2014-2015	AY 2015-2016	AY 2016-2017	AY 2017-2018
	Computer Science, MS (#117)	110101	453	456	1,086	856	508
	Engineering Technology Management, MS (#0447)	151501	579	567	814	534	260
Graduate	Lean Sigma, CER (#0452)	150702	9	72	103	116	48
	Technology Management, MS (#045)~	151501	27	5	2	2	1

	Level Maior CID			Pro	vided Credit Ho	ours	
	Level - Major - CIP		AY 2013-2014	AY 2014-2015	AY 2015-2016	AY 2016-2017	AY 2017-2018
	Advanced Manufacturing, BS (#506)~	150613	978	1,244	1,234	589	111
	Applied Technology, BS (#517)~	150612	3	0.0	0.0	0.0	0.0
	Architectural Drafting Technology, AS (#207)~	151303	32	13	17	10	0.0
	Architectural Science, BS (#518)	040901	1,664	1,790	2,017	2,092	1,816
	Automation, CER (#1726)	150613	0.0	0.0	0.0	0.0	1
	CNSS 4011, CER (#1719)	111003	24	3	6	6	12
	Civil Engineering, BS (#534)	140801	1,773	1,993	2,277	2,371	2,596
	Computer Information Technology, BS (#555)	110103	2,846	1,877	2,807	3,347	3,655
	Computer Science, BS (#629)	110101	1,373	1,700	1,623	1,742	1,733
	Computer Science, Minor (#341)		53	78	77	105	145
	Construction Management, BS (#533)	151001	1,022	1,342	1,430	2,029	2,115
	Construction Management, Minor (#343)	151001	30	69	152	137	81
	Electrical Engineering, BS (#537)	141001	1,488	1,393	1,483	1,466	1,527
	Electrical Engineering, Minor (#354)	141001	115	81	32	25	31
Lladoraroduoto	Floodplain Management, Minor (#361)		91	64	60	29	10
Undergraduate	Food Processing and Technology, CER (#1718)	011002	0.0	0.0	54	12	0.0
	Industrial (Vocational, Career, and Technical) Education, BS (#599)~	131320	8	27	25	1	10
	Industrial Sciences, BS (#571)~	150613	0.0	0.0	3	0.0	0.0
	Industrial Sciences, Minor (#395)		400	373	212	58	7
	Land Surveying, CER (#1700)	400699	17	38	58	57	123
	Land Surveying, Minor (#405)		155	158	70	51	44
	Manufacturing Engineering Technology, BS (#5006)	150613	0.0	0.0	0.0	831	1,300
	Manufacturing Processing and Technology, CER (#1728)	150613	0.0	0.0	33	24	19
	Manufacturing Technology, AS (#257)~	150613	15	16	0.0	0.0	0.0
	Manufacturing and Logistics, CER (#1727)	150613	0.0	0.0	18	9	16
	Mechanical Engineering, BS (#543)	141901	1,949	2,636	3,224	2,947	3,153
	Six Sigma and Quality, CER (#1729)	150613	0.0	0.0	27	33	39
	Systems Engineering, Minor (#476)	142701	331	515	374	758	928
	Technology Management, BS (#575)	150612	391	729	639	621	456
	Vocational-Industrial and Technical Teacher Education, AS (#296)~	131319	46	34	40	55	51
All			15,871	17,272	19,996	20,913	20,794

## First Year Persistence by Fall Cohort

Fall-to-fall Persistence of the first time students entering with a declared major in the program. Persistence includes enrollment or graduation after one year.

				Fal	I 2013	Fal	I 2014	Fal	l 2015	Fal	I 2016	Fal	I 2017
	Le	vel - Degree - Major - CIP		# in Cohort	% Persisted								
	Certificate	Lean Sigma, CER (#0452)	150702	0	0	0	0	1	100.0%	1	100.0%	0	0
	Doctoral	Lean Sigma, CER (#0452)	150702	0	0	0	0	0	0	1	0.0%	0	0
		Computer Science, MS (#117)	110101	12	91.7%	11	72.7%	7	57.1%	9	88.9%	6	100.0%
Graduate	Masters	Engineering Technology Management, MS (#0447)	151501	9	66.7%	5	60.0%	4	75.0%	4	25.0%	7	100.0%
		Lean Sigma, CER (#0452)	150702	0	0	0	0	0	0	1	0.0%	1	100.0%
	Level Subtotal			21	81.0%	16	68.8%	12	66.7%	16	62.5%	14	100.0%
		Architectural Drafting Technology, AS (#207)~	151303	1	100.0%	4	0.0%	1	0.0%	1	100.0%	0	0
	Associate	Manufacturing Technology, AS (#257)~	150613	0	0	0	0	1	0.0%	0	0	0	0
		Vocational-Industrial and Technical Teacher Education, AS (#296)~	131319	0	0	1	0.0%	0	0	1	100.0%	0	0
		Advanced Manufacturing, BS (#506)~	150613	2	100.0%	5	100.0%	2	50.0%	4	100.0%	0	0
		Architectural Science, BS (#518)	040901	26	65.4%	17	76.5%	21	85.7%	19	78.9%	25	64.0%
		Civil Engineering, BS (#534)	140801	38	73.7%	53	88.7%	47	74.5%	42	88.1%	49	73.5%
Undergraduate		Computer Information Technology, BS (#555)	110103	16	68.8%	19	36.8%	19	42.1%	17	70.6%	22	27.3%
	Baccalaureate	Computer Science, BS (#629)	110101	28	75.0%	45	68.9%	50	78.0%	68	63.2%	45	57.8%
	Baccalaureale	Construction Management, BS (#533)	151001	8	62.5%	9	55.6%	14	50.0%	19	78.9%	17	58.8%
		Electrical Engineering, BS (#537)	141001	37	94.6%	39	61.5%	27	66.7%	24	83.3%	38	78.9%
		Manufacturing Engineering Technology, BS (#5006)	150613	0	0	0	0	0	0	0	0	3	100.0%
		Mechanical Engineering, BS (#543)	141901	49	79.6%	93	84.9%	75	80.0%	62	80.6%	70	78.6%
		Technology Management, BS (#575)	150612	2	100.0%	1	100.0%	1	100.0%	4	75.0%	2	50.0%
	Level Subtotal			207	77.8%	286	74.1%	258	72.5%	261	77.0%	271	67.5%

## **Progression Numbers by Academic Year**

The number of undergraduate students progressing to the next classification or graduating during the academic year.

							Acaden	nic Y	ear		
		Level - Degree - Major - CIP			2014/15		2015/16		2016/17		2017/18
		zoro. zogreo imajer on		#	% Progressed	#	% Progressed	#	% Progressed	#	% Progressed
		Architectural Drafting Technology, AS (#207)~	151303	7	14.3%	3	33.3%	2	50.0%	1	100.0%
	Associate	Manufacturing Technology, AS (#257)~	150613	3	33.3%	3	33.3%	0	0	0	0
		Vocational-Industrial and Technical Teacher Education, AS (#296)~	131319	17	23.5%	17	11.8%	19	0.0%	22	27.3%
		Advanced Manufacturing, BS (#506)~	150613	79	67.1%	76	68.4%	48	72.9%	12	50.0%
		Architectural Science, BS (#518)	040901	90	70.0%	115	66.1%	108	68.5%	115	70.4%
		Civil Engineering, BS (#534)	140801	172	52.9%	164	65.9%	149	67.8%	152	63.2%
		Computer Information Technology, BS (#555)	110103	92	39.1%	107	44.9%	146	52.1%	165	43.6%
		Computer Science, BS (#629)	110101	173	46.8%	173	49.1%	162	49.4%	179	52.0%
	Baccalaureate	Construction Management, BS (#533)	151001	63	60.3%	89	66.3%	130	56.2%	138	71.7%
Undergraduate		Electrical Engineering, BS (#537)	141001	128	54.7%	104	56.7%	112	55.4%	115	53.0%
		Industrial (Vocational, Career, and Technical) Education, BS (#599)~	131320	4	50.0%	0	0	5	20.0%	9	22.2%
		Manufacturing Engineering Technology, BS (#5006)	150613	0	0	0	0	27	92.6%	50	74.0%
		Mechanical Engineering, BS (#543)	141901	306	46.4%	301	62.1%	252	59.9%	209	62.7%
		Technology Management, BS (#575)	150612	26	57.7%	26	61.5%	34	41.2%	25	44.0%
		Food Processing and Technology, CER (#1718)	011002	0	0	3	100.0%	0	0	0	0
		Land Surveying, CER (#1700)	400699	1	100.0%	1	100.0%	0	0	0	0
	Certificate	Manufacturing Processing and Technology, CER (#1728)	150613	0	0	0	0	1	100.0%	0	0
		Manufacturing and Logistics, CER (#1727)	150613	0	0	0	0	1	100.0%	0	0
		Six Sigma and Quality, CER (#1729)	150613	0	0	0	0	1	100.0%	1	100.0%

#### 150% Graduation Rates by Fall Cohort

Percentage of degree-seeking students graduating within 150% of normal time.

150% graduation time varies by degree type - Associates: 3 years; Bachelors: 6 years; Masters/Specialist: 3 years; Doctoral: 4 years.

Graduation Rates are calculated through the most recent cohort with a graduating term of Summer 2018.

		Level - Degree - Major - CIP			AY 2013- 2014				AY 2014- 2015		2015- 116	AY 2016- 2017		AY 2 20	-
	Architectural Drafting Technology AS (#207)~ 15130					#	%	#	%	#	%	#	%		
		Architectural Drafting Technology, AS (#207)~	151303	1	0.0%	1	0.0%	4	0.0%	1	0.0%	1	0.0%		
Undergraduate	Associate	Manufacturing Technology, AS (#257)~	150613	0	0	0	0	0	0	1	0.0%	0	0		
		Vocational-Industrial and Technical Teacher Education, AS (#296)~	131319	3	0.0%	0	0	1	0.0%	0	0	1	0.0%		
All					0.0%	1	0.0%	5	0.0%	2	0.0%	2	0.0%		

		Level - Degree - Major - CIP		AY 20	13-2014	AY 2014- 2015		AY 20	15-2016	AY 2016- 2017		AY 20	17-2018
		•		#	%	#	%	#	%	#	%	#	%
		Advanced Manufacturing, BS (#506)~	150613	0	0	1	0.0%	1	100.0%	4	25.0%	2	50.0%
		Architectural Science, BS (#518)	040901	15	20.0%	17	52.9%	16	62.5%	29	51.7%	24	54.2%
		140801	27	51.9%	35	57.1%	33	57.6%	36	58.3%	38	60.5%	
		Computer Information Technology, BS (#555)	110103	9	33.3%	17	11.8%	15	20.0%	10	70.0%	16	31.3%
Undergraduate	Raccalauroato	Computer Science, BS (#629)	110101	33	39.4%	29	41.4%	32	37.5%	35	31.4%	28	46.4%
Ondergraduate	Daccalaureate	Construction Management, BS (#533)	151001	6	33.3%	13	23.1%	8	50.0%	5	40.0%	7	57.1%
		Electrical Engineering, BS (#537)	141001	14	42.9%	32	46.9%	21	47.6%	29	44.8%	37	64.9%
		Industrial (Vocational, Career, and Technical) Education, BS (#599)~	131320	1	0.0%	3	66.7%	1	0.0%	1	0.0%	0	0
		Mechanical Engineering, BS (#543)	141901	42	50.0%	43	44.2%	37	40.5%	37	54.1%	49	61.2%
	Technology Management, BS (#575)					0	0	1	0.0%	1	0.0%	2	100.0%
All					42.6%	190	43.2%	165	44.8%	187	48.1%	203	56.7%

	Level - Degree - Major - CIP				AY 2013- 2014		AY 2014- 2015		2015- 016	16 2017			
					%	#	%	#	%	#	%	#	%
		Computer Science, MS (#117)	110101	19	78.9%	12	91.7%	11	63.6%	7	57.1%	9	66.7%
Graduate	Masters	Engineering Technology Management, MS (#0447)	151501	7	28.6%	9	44.4%	5	20.0%	4	25.0%	4	25.0%
		Technology Management, MS (#045)~	151501	1	0.0%	0	0	0	0	0	0	0	0
All	II .			27	63.0%	21	71.4%	16	50.0%	11	45.5%	13	53.8%

# Average Years To Graduate by Program

Average years to graduate (i.e., degree term less first term at WKU at the same level).

Department	Major	CIP	AY 2013- 2014	AY 2014- 2015	AY 2015- 2016	AY 2016- 2017	AY 2017- 2018
EAS	Engineering Technology Management, MS (#0447)	151501	2.52 (N=7)	2.61 (N=6)	6.33 (N=1)	3.92 (N=4)	3.38 (N=8)
	Technology Management, MS (#045)~	151501	7.11 (N=3)	5.00 (N=1)			
	Computer Science, MS (#117)	110101	2.34 (N=14)	1.91 (N=7)	2.38 (N=7)	2.00 (N=5)	2.05 (N=21)
	Architectural Drafting Technology, AS (#207)~	151303	2.67 (N=1)	3.34 (N=1)			
	Manufacturing Technology, AS (#257)~	150613	3.33 (N=1)				
	Vocational-Industrial and Technical Teacher Education, AS (#296)~	131319	2.53 (N=5)	3.43 (N=7)	6.50 (N=4)	10.34 (N=6)	6.00 (N=13)
	Computer Science, Minor (#341)		11.56 (N=3)				6.22 (N=3)
	Construction Management, Minor (#343)	151001	3.00 (N=1)			3.17 (N=2)	4.67 (N=3)
	Electrical Engineering, Minor (#354)	141001		11.00 (N=1)			
	Floodplain Management, Minor (#361)		4.67 (N=1)	3.92 (N=4)		4.67 (N=1)	3.67 (N=1)
	Industrial Sciences, Minor (#395)		4.33 (N=15)	5.12 (N=16)	4.40 (N=5)	5.92 (N=4)	3.89 (N=3)
	Land Surveying, Minor (#405)		7.17 (N=2)	3.89 (N=3)			4.33 (N=1)
	Systems Engineering, Minor (#476)	142701	5.19 (N=14)	4.03 (N=14)	4.57 (N=13)	4.22 (N=23)	4.46 (N=41)
	Manufacturing Engineering Technology, BS (#5006)	150613				4.32 (N=20)	4.76 (N=25)
	Advanced Manufacturing, BS (#506)~	150613	4.14 (N=14)	6.52 (N=9)	4.69 (N=13)	4.48 (N=9)	5.45 (N=3)
	Applied Technology, BS (#517)~	150612	21.34 (N=2)				
	Architectural Science, BS (#518)	040901	4.38 (N=15)	4.35 (N=18)	4.43 (N=18)	4.34 (N=24)	4.10 (N=32)
	Construction Management, BS (#533)	151001	4.92 (N=8)	4.68 (N=24)	4.98 (N=19)	5.06 (N=17)	3.90 (N=31)
	Civil Engineering, BS (#534)	140801	4.10 (N=24)	4.07 (N=19)	4.35 (N=37)	4.42 (N=27)	5.31 (N=30)
	Electrical Engineering, BS (#537)	141001	5.06 (N=22)	3.69 (N=12)	5.35 (N=21)	4.02 (N=15)	4.27 (N=26)
	Mechanical Engineering, BS (#543)	141901	4.76 (N=19)	4.85 (N=17)	4.63 (N=36)	4.58 (N=37)	4.48 (N=38)
	Computer Information Technology, BS (#555)	110103	3.84 (N=50)	3.48 (N=42)	4.28 (N=40)	3.58 (N=37)	4.47 (N=37)
	Industrial Sciences, BS (#571)~	150613	13.33 (N=1)		12.33 (N=1)	16.67 (N=1)	
	Technology Management, BS (#575)	150612	5.67 (N=11)	4.87 (N=13)	4.97 (N=23)	2.95 (N=14)	4.54 (N=20)
	Industrial (Vocational, Career, and Technical) Education, BS (#599)~	131320	9.89 (N=3)	14.84 (N=2)	8.17 (N=6)	15.33 (N=1)	
	Computer Science, BS (#629)	110101	4.49 (N=13)	4.82 (N=18)	4.43 (N=21)	5.62 (N=19)	4.16 (N=26)

# **Delivery Cost**

Total Department SCHP includes all SCHP taught in courses owned by the Department, including those taught by part-time faculty and full-time faculty outside the department. Data excludes ensemble performance, independent study, maintaining matriculation, co-op ed, dual credit, on-demand, research, and student teaching course sections.

Departr	ment	# Tenure Track Faculty (A)	Tenure Track Mean Salary (B)	# Non- Tenure Track Faculty (C)	Non-Tenure Track Mean Salary (D)		Cost Per SCHP (([A*B] + [C*D]) / E)
EAS		35	\$82,578	8	\$48,209	19,841	\$165

#### **Faculty Efficiency and Class Size**

Excludes ensemble performance, independent study, maintaining matriculation, co-op ed, dual credit, on-demand, research, and student teaching course sections.

Departmental Efficiency Data:	AY 2013- 2014	AY 2014- 2015	AY 2015- 2016	AY 2016- 2017	AY 2017- 2018
SCHP per Full-Time Faculty	284	359	449	408	394
% SCHP Taught by Full-time Faculty	80.6%	80.9%	88.3%	84.9%	85.3%
Upper Div Median Class Size	17	17	18	19	19
% Upper Div Sections with < 15 Enrolled	36.9%	42.9%	35.5%	35.5%	34.3%
Graduate Median Class Size	11	14	20	15	8
% Graduate Sections with < 10 Enrolled	36.7%	29.2%	12.9%	23.1%	54.2%