



Department of Engineering and Computer Science

#5 Plan cycle - 5

Plan cycle 2022/2023

7/1/22 - 6/30/23

Performance Objective 1 Increase enrollment, persistence, retention, and graduation rates for each program offered by the department.

1 Assessment and Benchmark

Benchmark: Increase enrollment in the BS Computer Science program by 5% each year.

- CSCI - BS Computer Science
 - APSC - Applied Computer Science
 - GNCS - General Computer Science
 - INCS - Industrial Computer Science

1.1 Data

2018-2019:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
CSCI	APSC	0	1	1	5	7	1	12	12	6	12	42	3	7	9	6	13	35	1
	GNCS	3	8	5	18	34	0	45	36	31	31	143	5	24	37	29	39	129	10
	INCS	0	0	1	0	1	0	4	0	1	1	6	0	3	0	0	1	4	0
	(blank)	1	0	1	0	2	0	1	0	1	0	2	0	1	2	1	1	5	0
Total		4	9	8	23	44	1	62	48	39	44	193	8	35	48	36	54	173	11

2019-2020:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
CSCI	APSC	2	4	1	8	15	0	22	8	5	16	51	3	16	8	9	12	45	2
	GNCS	5	3	6	21	35	1	38	26	40	48	152	12	23	19	34	51	127	20
	INCS	0	1	0	0	1	0	3	3	0	0	6	0	1	2	0	0	3	0
	(blank)	0	0	0	0	0	0	0	1	0	0	1	0	2	1	2	0	5	0
Total		7	8	7	29	51	1	63	38	45	64	210	15	42	30	45	63	180	22

2020-2021:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
CSCI	APSC	3	3	1	5	12	0	23	15	12	12	62	3	14	11	11	14	50	2
	GNCS	1	6	4	16	27	1	37	25	25	56	143	14	22	28	25	53	128	19
	INCS	0	0	1	0	1	0	1	0	0	0	1	0	1	1	0	0	2	0
	(blank)	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0
Total		4	9	6	21	40	1	62	40	37	68	207	17	37	40	36	67	180	21

2021-2022:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
CSCI	APSC	0	1	2	2	5	0	13	9	8	11	41	2	12	8	11	7	38	2
	GNCS	3	8	2	4	17	1	39	26	27	47	139	10	35	25	20	48	128	13
	INCS	0	0	0	0	0	0	2	0	1	0	3	0	1	0	1	0	2	0

	(blank)	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	0	2	0
Total		3	9	4	6	22	1	56	35	36	58	185	12	50	33	32	55	170	15

2022-2023:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
CSCI	APSC	2	2	0	2	6	0	13	14	4	13	44	0	16	13	5	15	49	6
	GNCS	3	3	7	8	21	1	79	31	13	49	172	12	60	30	18	35	143	14
	INCS	0	0	0	1	1	0	1	1	0	0	2	0	1	1	0	0	2	0
	(blank)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		5	5	7	11	28	1	93	46	17	62	218	12	77	44	23	50	194	20

Percentage Change between 2018-2019:

Major	Fall	Total	% Change
CSCI	2018	193	8.808%
	2019	210	
Total	2018	193	8.808%
	2019	210	

Percentage Change between 2019-2020:

Major	Fall	Total	% Change
CSCI	2019	210	-1.428%
	2020	207	
Total	2019	210	-1.428%
	2020	207	

Percentage Change between 2021-2022:

Major	Fall	Total	% Change
CSCI	2020	207	-10.628%
	2021	185	
Total	2020	207	-10.628%
	2021	185	

Percentage Change between 2021-2022:

Major	Fall	Total	% Change
CSCI	2021	185	17.837%
	2022	218	
Total	2021	185	17.837%
	2022	218	

1.1.1 Analysis of Data

2019-2020:

2020-2021:

Data is inconclusive, due to Fall 2021 data not being completed yet. The completers column indicates that the Computer Science major has had a few more completers than the previous years. This could be due to the COVID-19 pandemic and hurricanes Laura and Delta forcing the university to have more online courses than it has ever had before.

2021-2022:

The enrollment and retention in computer science programs shows a negative trend from Fall of 2021 to Spring of 2022. Benchmark wasn't met.

2022-2023:

The enrollment and retention in computer science programs shows a positive trend from Fall of 2022 to Spring of 2023. Benchmark was met.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Once data on the Fall 2021 enrollment comes in we can work on a plan of increasing recruiting efforts.

2021-2022:

The department is going to work harder on recruiting efforts for computer science students. The department has plans to create a website and conduct community outreach via social media and newsletters. The department has just created a moodle page for all students to help with retention.

2022-2023:

Continue recruiting efforts in various venues and high schools. To improve retention, industry participation with the students were created through presentations on various new computer science topics.

2 Assessment and Benchmark

Benchmark: Increase enrollment in the BSChE Chemical Engineering, BS Engineering, and BSME Mechanical Engineering programs by 5% each year.

- CHEG - Chemical Engineering, BSChE (effective 202040)
- ENGR - Engineering, BS
 - CHEG - Chemical Engineering Concentration (inactive effective 202040)
 - CIEG - Civil Engineering Concentration
 - ELEG - Electrical Engineering Concentration
 - GEEG - General Engineering Concentration (effective 201740; inactive effective 201940)
 - MEEG - Mechanical Engineering Concentration (inactive effective 201860)
- MEEG - Mechanical Engineering, BSME (effective 201860)

CMP - Completers

2.1 Data

2018-2019:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
	CHEG	5	20	15	31	71	0	46	45	34	89	214	6	26	30	31	94	181	32
	CIEG	3	12	10	20	45	1	23	17	16	39	95	4	12	15	16	40	83	17

ENGR	COEG	0	1	0	0	1	0	8	3	1	3	15	0	8	5	2	3	18	0
	ELEG	8	6	5	6	25	0	31	23	9	41	104	1	25	18	8	47	98	14
	GEEG	0	1	0	0	1	0	1	2	0	0	3	0	0	2	0	0	2	0
	MEEG	9	23	19	26	77	0	6	43	54	70	173	11	14	21	48	75	158	23
	(blank)	3	2	2	0	7	0	1	1	1	1	4	0	0	1	1	1	3	0
	Total	28	66	50	83	227	1	116	134	1115	243	605	22	85	92	106	260	543	86
MEEG	(blank)	—	—	—	—	—	59	9	2	4	74	0	27	23	5	4	59	0	
Grand Total		28	66	50	83	227	1	175	143	117	247	682	22	112	115	111	264	602	86

2019-2020:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
ENGR	CHEG	1	13	11	19	44	1	47	28	36	73	184	4	18	35	31	87	171	38
	CIEG	4	11	2	14	31	0	18	19	13	37	87	5	6	17	12	37	72	10
	COEG	3	3	0	2	8	0	25	4	2	7	38	0	10	9	2	8	29	3
	ELEG	4	6	3	8	21	0	21	22	11	33	87	8	13	20	14	31	78	13
	GEEG	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0
	MEEG	1	4	19	25	49	1	1	8	26	67	102	11	0	2	10	57	69	0
	(blank)	0	0	0	2	2	0	3	2	0	4	9	0	0	0	0	0	0	0
	Total	13	37	35	70	155	3	115	83	89	221	508	43	47	83	70	220	420	86
MEEG	(blank)	8	17	7	5	37	0	58	40	14	9	121	0	33	37	29	36	135	16
Grand Total		21	54	42	75	192	3	173	123	103	230	629	43	80	120	99	256	555	107

2020-2021:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
CHEG	(blank)	1	0	2	4	7	0	38	11	2	6	57	0	18	24	24	20	86	0
ENGR	CHEG	1	10	16	26	53	3	5	23	22	65	115	3	0	0	0	54	54	25
	CIEG	1	3	11	11	26	1	18	12	15	36	81	4	13	10	12	39	74	10
	COEG	2	4	2	2	10	0	16	5	5	7	33	0	6	10	5	7	28	3
	ELEG	4	5	6	11	26	0	27	14	17	25	83	1	21	10	21	27	79	13
	MEEG	0	0	3	25	28	0	0	1	5	56	62	0	0	0	3	48	51	0
	(blank)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	8	22	38	75	143	4	66	55	64	189	374	8	40	30	41	175	286	51
MEEG	(blank)	2	16	12	16	46	2	57	37	36	30	160	11	34	39	31	43	147	28
Grand Total		11	38	52	95	196	6	161	103	102	225	591	19	92	93	96	238	519	79

2021-2022:

[illegible]

ENGR	CHEG	0	0	0	8	8	0	0	0	0	18	18	0	0	0	0	13	13	1
	CIEG	4	7	5	12	28	0	20	12	9	36	77	0	12	10	8	35	65	1
	COEG	1	4	1	2	8	0	12	11	5	6	34	0	6	7	5	6	24	0
	ELEG	0	4	7	7	18	0	25	17	11	23	76	1	13	15	8	29	65	0
	MEEG	0	0	0	4	4	0	0	0	0	0	0	1	0	0	0	0	0	0
	(blank)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	5	15	13	33	66	0	57	40	25	83	205	2	31	32	21	83	167	2
MEEG	(blank)	5	11	5	16	37	1	62	36	36	71	205	16	39	29	32	70	170	17
Grand Total		11	33	26	69	139	1	155	94	83	197	529	18	93	78	74	205	450	42

2022-2023:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
CHEG	(blank)	4	8	12	9	33	0	22	16	17	43	98	0	11	14	15	48	88	18
ENGR	CHEG	0	0	0	1	1	0	0	0	0	6	6	0	0	0	0	5	5	2
	CIEG	3	11	5	17	36	0	14	12	11	24	61	5	11	8	9	25	53	7
	COEG	0	0	2	2	4	0	18	9	7	6	40	0	11	9	7	10	37	3
	ELEG	2	6	3	6	17	0	25	13	13	22	73	2	15	11	8	29	63	13
	(blank)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
	Total	5	17	10	26	58	0	57	34	31	58	180	7	37	29	24	69	159	25
MEEG	(blank)	6	11	6	19	42	0	61	36	25	69	191	23	38	35	24	56	153	11
Grand Total		15	36	28	54	133	0	140	86	73	170	469	30	86	78	63	173	400	54

Percentage Change between 2018-2019:

Major	Fall	Total	% Change
ENGR	2018	605	-16.033%
	2019	508	
MEEG	2018	74	63.514%
	2019	121	
Total	2018	679	-7.364%
	2019	629	

Percentage Change between 2019-2020:

Major	Fall	Total	% Change
CHEG	2019	0	—
	2020	57	
ENGR	2019	508	-26.378%
	2020	374	
MEEG	2019	121	32.231%
	2020	160	
Total	2019	629	-6.041%

	2020	591	
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Percentage Change between 2020-2021:

Major	Fall	Total	% Change
CHEG	2020	57	108.772%
	2021	119	
ENGR	2020	374	-45.187%
	2021	205	
MEEG	2020	160	28.125%
	2021	205	
Total	2020	591	-10.491%
	2021	529	

Percentage Change between 2021-2022:

Major	Fall	Total	% Change
CHEG	2021	119	-17.647%
	2022	98	
ENGR	2021	205	-12.195%
	2022	180	
MEEG	2021	205	-6.829%
	2022	191	
Total	2021	529	-11.342%
	2022	469	

2.1.1 Analysis of Data

2019-2020:

2020-2021:

The benchmark cannot be measured currently due to the need for Fall 2021 data. Although based upon the 2020-2021 chart it looks like the benchmark wouldn't have been meant since the number of completers has gone down. This could be due to the COVID-19 Pandemic, as well as hurricanes Laura and Delta.

2021-2022:

The benchmark wasn't meant. The data is trending in a negative direction.

2022-2023:

After coming back from Hurricane, we had a huge spike in enrollment in 2021 and similar spike was not accepted in 2022.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

2.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

The first part of continuous improvement is getting back to face-to-face courses to get students who took a break during the COVID-19 pandemic back, as well as increase recruiting efforts through the new LNG center that is getting built.

2021-2022:

The department plans on making curriculum changes for student retention, especially in the freshman level courses. This will help map out the future trends.

2022-2023:

- ENGR 110 Intro to Engineering Class will be offered discipline specific from Fall 2023 to improve student retention.
- Increase in involvement with internship and coop opportunities.
- Increase recruitment efforts in reaching out to high schools and other venues. Along with ongoing E-Week community outreach.

3 Assessment and Benchmark

Benchmark: Maintain or exceed a total of 15 students in the MEng Engineering program.

Prior to 2021-2022, the benchmark was to maintain or exceed a total of 40 students in the MEng Engineering program.

- ENGR - MEng Engineering
 - CHEG - Chemical Engineering
 - CIEG - Civil Engineering
 - ELEG - Electrical Engineering
 - EMGT - Engineering Management (inactive effective 201940)
 - MEEG - Mechanical Engineering
- ENRT - MEng Engineering (Thesis Option; effective 201740)
 - CHEG - Chemical Engineering
 - CIEG - Civil Engineering
 - ELEG - Electrical Engineering
 - MEEG - Mechanical Engineering

3.1 Data

Graduate Enrollment:

Major	Conc.	2018-2019			2019-2020			2020-2021			2021-2022			2022-2023		
		U	F	S	U	F	S	U	F	S	U	F	S	U	F	S
ENGR	CHEG	0	4	3	0	2	1	3	3	3	1	2	2	1	2	3
	CIEG	0	0	1	0	2	2	0	2	4	1	4	4	0	4	1
	ELEG	4	4	3	1	2	5	3	3	1	1	2	2	0	0	0
	EMGT	0	3	1	0	1	1	1	0	0	0	0	0	0	0	0
	MEEG	2	5	4	1	5	3	0	1	1	0	1	3	2	3	2
	Total	6	16	12	2	12	12	7	9	9	3	9	11	3	9	6
ENRT	CHEG	0	0	0	0	0	1	1	1	1	1	3	3	0	0	0
	CIEG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ELEG	0	2	3	1	2	1	0	2	2	0	1	0	0	1	1
	MEEG	0	0	1	1	1	2	0	0	1	1	1	0	0	0	0
	Total	0	2	4	2	3	4	1	3	4	2	5	3	0	1	1
Grand Total		6	18	16	4	15	16	8	12	13	5	14	14	3	10	7

Percentage Change between 2021-2022:

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Major	Fall	Total	% Change
ENGR	2021	9	0%
	2022	9	
ENRT	2021	5	-80%
	2022	1	
Total	2021	14	-28.571%
	2022	10	

3.1.1 Analysis of Data

2019-2020:

2020-2021:

The benchmark wasn't met for the current academic year for graduate students in the department of Engineering and Computer Science. This could be due to the current job market and the need to getting a Master's degree not being there. Or it could be due to the COVID-19 pandemic and hurricanes Laura and Delta.

2021-2022:

The benchmark wasn't met. However, enrollment did stay the same and didn't follow a negative trend like the undergraduate programs.

2022-2023:

The benchmark wasn't met. Not Thesis enrollment remained the same but Thesis enrollment dropped 80%.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

3.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

The plan for improvement may be to lower the number of graduate students to 15-20, due to the current job market and then reexamine the data year-to-year.

2021-2022:

Increase recruitment efforts. The department has plans to create a website and conduct community outreach via social media and newsletters. The department has just created a moodle page for all students to help with retention. The college has also made efforts, in having a presence at career expo and gradfest.

2022-2023:

The department is working hard on various avenues to recruit different pool of students including domestic and international students. Responding to all inquiries through emails to give McNeese research capabilities.

4 Assessment and Benchmark

Benchmark: Track student completion in the MEng Engineering program. Maintain or exceed a total of 10 completers in the MEng Engineering program.

- ENGR - MEng Engineering
 - CHEG - Chemical Engineering
 - CIEG - Civil Engineering
 - ELEG - Electrical Engineering
 - EMGT - Engineering Management (inactive effective 201940)
 - MEEG - Mechanical Engineering
- ENRT - MEng Engineering (Thesis Option; effective 201740)

- CHEG - Chemical Engineering
- CIEG - Civil Engineering
- ELEG - Electrical Engineering
- MEEG - Mechanical Engineering

4.1 Data

Graduate Completers:

Major	Conc.	2018-2019			2019-2020			2020-2021			2021-2022			2022-2023		
		U	F	S	U	F	S	U	F	S	U	F	S	U	F	S
ENGR	CHEG	0	2	1	0	0	0	1	1	0	0	0	0	0	1	1
	CIEG	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0
	ELEG	0	1	1	0	0	1	0	2	0	1	0	1	0	0	0
	EMGT	0	0	1	0	0	0	1	0	0	—	—	—	—	—	—
	MEEG	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
	Total	0	4	3	0	0	1	2	3	0	1	1	2	0	3	2
ENRT	CHEG	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
	CIEG	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
	ELEG	0	0	1	0	0	0	0	0	1	1	0	1	0	0	0
	MEEG	0	0	0	0	0	4	0	0	0	1	0	1	0	0	0
	Total	0	0	1	0	0	4	0	0	2	2	1	3	0	1	0
Grand Total		0	4	4	0	0	5	2	3	2	3	2	5	0	4	2

4.1.1 Analysis of Data

2019-2020:

2020-2021:

The benchmark of 10 completers in the Master's of Engineering wasn't met. This ties in with the lower enrollment in the Master's of Engineering and the completers being tied into it.

2021-2022:

2022-2023:

Benchmark wasn't met due to low enrollment in Masters program.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

4.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

The graduate program needs to increase enrollment numbers, by increasing recruitment. As well as possibly lowering the number of total completers.

2021-2022:

2022-2023:

Will keep working on increasing enrollment numbers in Masters program.

5 Assessment and Benchmark

Benchmarks:

- A persistence rate (students retained from Fall Y1 to Spring Y1) of 85%.
- A retention rate of 70% from Y1 to Y2.

- Major:

- CITE - Bachelor of Science in Computer Information Technology
- CSCI - Bachelor of Science in Computer Science
- ENGT - Bachelor of Science in Engineering Technology
- ENGR - Bachelor of Science in Engineering
- ENTC - Bachelor of Science in Engineering Technology
- MEEG - Bachelor of Science in Mechanical Engineering

Fall 2012 Cohort:

Major Retention

[illegible]

*There were students that were undeclared before declaring:

CSCI = 2

ENG T = 1

$$\text{ENTC} = 2$$

Fall 2013 Cohort:

Major Retention

Major	Cohort Size	Persistence Rate		Retention Rate						Graduation Rate					
				Y1 to Y2		Y1 to Y3		Y1 to Y4		4-Year		5-Year		6-Year	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
CSCI	33*	29	87.9	13	39.4	12	36.4	8	24.2	2	6.1	2	6.1	1	3.0
ENGR	143	103	72.0	73	51.0	53	37.1	48	33.6	18	12.6	21	14.7	3	2.1
ENGT	3**	3	100	3	100	2	66.7	2	66.7	1	33.3	0	0.0	0	0.0

*1 student was previously declared before declaring CSCI.

****1 student was previously declared before declaring ENG.T.**

Fall 2014 Cohort:

Major Retention

Major	Cohort Size	Persistence Rate		Retention Rate						Graduation Rate					
				Y1 to Y2		Y1 to Y3		Y1 to Y4		4-Year		5-Year		6-Year	

		#	%	#	%	#	%	#	%	#	%	#	%	#	%
CSCI	23	17	73.9	12	52.2	8	34.8	7	30.4	5	21.7	6	26	6	26
ENGR	184	130	70.7	94	51.2	66	35.9	60	32.6	24	13	41	22.2	46	25

Fall 2015 Cohort:

Major Retention

Major	Cohort Size	Persistence Rate		Retention Rate						Graduation Rate					
				Y1 to Y2		Y1 to Y3		Y1 to Y4		4-Year		5-Year		6-Year	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
CSCI	37	25	67.6	21	56.8	14	37.8	12	32.4	5	13.5	5	13.5	1	2.7
ENGR	205	128	62.4	90	43.9	58	28.3	54	26.3	25	12.2	18	8.8	2	0.9

Fall 2016 Cohort:

Major Retention

Major	Cohort Size	Persistence Rate		Retention Rate						Graduation Rate					
				Y1 to Y2		Y1 to Y3		Y1 to Y4		4-Year		5-Year		6-Year	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
CSCI	55	44	80.0	35	63.6	26	47.3	24	43.6	17	30.9	22	40.0	22	40.0
ENGR	147	105	71.4	73	49.7	62	42.2	53	36.1	23	15.6	31	21.1	35	23.8

Departmental Retention

Dept	Cohort Size	Persistence Rate		Retention Rate						Graduation Rate					
				Y1 to Y2		Y1 to Y3		Y1 to Y4		4-Year		5-Year		6-Year	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
ENCS	202	150	74.3	111	55.0	91	45.0	84	41.6	49	24.3	67	33.2	75	37.1

Fall 2017 Cohort:

Major Retention

Major	Cohort Size	Persistence Rate		Retention Rate						Graduation Rate					
				Y1 to Y2		Y1 to Y3		Y1 to Y4		4-Year		5-Year		6-Year	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
CSCI	70	47	67.1	29	41.4	23	32.9	22	31.4						
ENGR	179	134	74.9	87	48.6	64	35.8	56	31.3						

Departmental Retention

Dept	Cohort Size	Persistence Rate		Retention Rate						Graduation Rate					
				Y1 to Y2		Y1 to Y3		Y1 to Y4		4-Year		5-Year		6-Year	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%
ENCS	249	187	75.1	123	49.4	94	37.8	88	35.3						

Major Retention

Departmental Retention

Fall 2019 Cohort:

Major Retention

Departmental Retention

Fall 2020 Cohort:

Major Retention

[illegible]

Departmental Retention

Fall 2021 Cohort:

[illegible][illegible]

Fall 2022 Cohort:

[illegible][illegible]

Summary of Benchmark Achievement:

Fall Cohort	Cohort Size	Persistence Rate	Retention Rate			Graduation Rate		
			Y1 to Y2	Y1 to Y3	Y1 to Y4	4-Year	5-Year	6-Year
2016	202	N	N	N	N	N	N	N
2017	249	N	N	N	N			
2018	200	N	N	N	N			
2019	201	N	N	N	N			
2020	190	N	N	N				
2021	174	N	N					
2022	183	N						
Average	199.9	N	N	N	N	N	N	N

5.1.1 Analysis of Data

2019-2020:

According to the data the engineering concentrations and the mechanical engineering major are not meeting the benchmark of 70%.

2020-2021:

No other data has been added for 20-21.

2021-2022:

2022-2023:

Persistence Rate for all programs didn't meet the benchmark of 85%.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

5.1.2 Plan for Continuous Improvement

2019-2020:

The engineering concentrations may be lower due to the start of the COVID-19 pandemic and several students not wanting to take courses online.

2020-2021:

No data collected.

2021-2022:

2022-2023:

The persistence rate and Retention rate are expected to increase due to ENGR 110 class being offered as discipline specific. CSCI rates are better due to the fact the foundation course is taught by CSCI Faculty. Also more exposure to Freshmen and Sophomore students to the available labs in the department and involvement of Industry with the students early on are some of the activities planned for continuous improvement.

Performance Objective 2 Provide a comprehensive curriculum that reflects disciplinary foundations and remains responsive to contemporary developments, student and workforce demand.

1 Assessment and Benchmark

Benchmark: Computer science faculty meet four times per academic year to review student progress, curricular offerings, and appropriate professional contacts and opportunities.

1.1 Data

Academic Year	# of meetings
2013-2014	8
2014-2015	8
2015-2016	6
2016-2017	7
2017-2018	12
2018-2019	9
2019-2020	3
2020-2021	0
2021-2022	
2022-2023	10

[CE Review- Report-2019 \(1\)](#) [DOCX 33 KB 6/12/20]

[CHEN Audit 2017](#) [DOCX 13 KB 6/12/20]

[CivilReview_2019 \(1\)](#) [PDF 1,343 KB 6/12/20]

[MEEN Program Review Comments Spring 18](#) [DOCX 18 KB 6/12/20]

1.1.1 Analysis of Data

2019-2020:

The benchmark wasn't meant for computer science meetings, due to COVID-19 pandemic starting in early March of 2020.

2020-2021:

The benchmark wasn't meant for computer science meetings, due to two hurricanes and the COVID-19 pandemic.

2021-2022:

2022-2023:

The benchmark was met and more meetings were executed to bring more interaction between faculty.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

With the end of the COVID-19 pandemic, meetings will be held as normally scheduled.

2020-2021:

With the end of the COVID-19 pandemic and hurricanes, meetings will be held as normally scheduled.

2021-2022:

2022-2023:

More interactions between Computer Science Faculty was executed in light of new program coordinator and new Department Head starting in 2022. This enabled faculty to engage and demonstrate the critical needs in curriculum changes and course development activities.

2 Assessment and Benchmark

Benchmark:

1)The College of Engineering Industrial Advisory Board reviews one engineering concentration (Chemical, Civil, Electrical, Computer, or Mechanical) per year on a four-year cycle. This is a comprehensive review examining the

curricula, space, labs, faculty, finances, etc.

2)The Computer Science Industrial Advisory Board reviews CS program every 5 years. This is a comprehensive review examining the curricula, space, labs, faculty, finances, etc.

2.1 Data

Term	Program Reviewed
Fall 2014	CIEG
Fall 2016	CHEG
Spring 2018	CSCI & MEEG
Spring 2019	CIEN
Fall 2020	ELEG
Spring 2021	—
Fall 2021	
Spring 2022	
Fall 2022	—
Spring 2023	—

2.1.1 Analysis of Data

2019-2020:

2020-2021:

No program review program review happened due to COVID-19 pandemic and multiple hurricanes.

2021-2022:

2022-2023:

No program review was conducted in this calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

2.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Continue as normally scheduled, once buildings are released back to the College.

2021-2022:

2022-2023:

Industry Advisory Board members in Engineering during Spring 2023 meeting visited the new Industry Process Control Lab and were impressed with the modern equipment and infrastructure that will become a major hands on experience advantage to engineering students.

Industry Advisory Board for Computer Science met for the first time in Spring 2023 after pandemic and hurricane. Faculty background and upcoming curriculum changes planned for 2023-2024 were presented and discussed.

3 Assessment and Benchmark

Benchmark: Maintain or exceed a 75% satisfactory level.

MEng Engineering:

- Assessment goal: Knowledge and skill gained in MEng program.
- Instrument: Exit survey data, student perception of gained knowledge and skills through exit survey data.

3.1 Data

Academic Year	# of respondents	Average Score
2019-2020	—	—
2020-2021	—	—
2021-2022		
2022-2023	—	—

3.1.1 Analysis of Data

2019-2020:

No data was collected due to the COVID-19 pandemic.

2020-2021:

No data was collected due to the hurricanes hitting McNeese's campus.

2021-2022:

2022-2023:

No data was collected.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

3.1.2 Plan for Continuous Improvement

2019-2020:

The survey will be relooked at, also due to social distancing exit surveys were difficult to complete.

2020-2021:

The survey will be re-evaluated and was not completed due to damage to buildings from the hurricanes.

2021-2022:

2022-2023:

The new DH was not aware of this exit survey. Will make it mandatory for all graduate students to graduate from here on.

4 Assessment and Benchmark

Benchmark: Maintain or exceed an average score of 80%.

MEng Engineering:

- Assessment goal: Knowledge and skill gained in MEng program.
- Instrument: Graduate Comprehensive Exam (GCE), evaluation of gained knowledge and skills through examination.

4.1 Data

Academic Year	# of respondents	Average Score
2019-2020	—	—
2020-2021	4	80%*
2021-2022		
2022-2023	6	80%

*This data is based on master's students in engineering. However, I believe all students were in the thesis option which doesn't require a Comprehensive Examination.

4.1.1 Analysis of Data

2019-2020:

2020-2021:

As previously stated most engineering master's students take the thesis option which doesn't require a comprehensive examination; it requires a thesis defense which of the data gathered so far is showing four of four students passed with at least 80% or higher.

2021-2022:

2022-2023:

Students with non-thesis option have passed the comprehensive examination and one student with thesis option has defended thesis and passed. The comprehensive examination is only taken by students with non-thesis option and students opted for thesis option are required to defend their thesis to successfully complete their graduate studies.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

4.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

The score was maintained, however the benchmark does need to be redone to show both non-thesis option students and thesis option students. Will discuss with faculty program coordinators in Fall 2021.

2021-2022:

2022-2023:

The benchmark is met and overall 7 students graduated in Masters program.

Performance Objective 3 (ABET Program Education Objective 1) The Computer Science programs will enable students to become productive, responsible computing science professionals capable of conducting research and/or designing, developing, or maintaining projects in the various areas of computer science.

1 Assessment and Benchmark

Benchmark: A benchmark of 3.00 on a 5-point scale for the McNeese State University Alumni survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Alumni survey asks questions about Program Educational Objectives.

1.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	30	4.27	Yes
2017-2018	37	3.49	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

1.1.1 Analysis of Data

2019-2020:

2020-2021:

No data was collected due to the continuation of the Covid-19 pandemic and two hurricanes hitting the campus.

2021-2022:

2022-2023:

No data was collected. A new survey monkey account for Computer Science has been purchased to keep the survey account independent from existing Engineering account. Data will be collected for 2023-2024 calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

The survey will be re-evaluated to make sure that it is still valid and may be replaced.

2021-2022:

2022-2023:

The survey will be published to meet the ABET requirements.

2 Assessment and Benchmark

Benchmark: A benchmark of 3.00 on a 5-point scale for the Employer survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Employer Survey asks questions about Program Educational Objectives.

2.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	12	4.67	Yes
2017-2018	12	4.33	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

2.1.1 Analysis of Data

2019-2020:

2020-2021:

No data was collected due to the covid-19 pandemic and multiple hurricanes hitting the campus.

2021-2022:

2022-2023:

No data was collected. A new survey monkey account for Computer Science has been purchased to keep the survey account independent from existing Engineering account. Data will be collected for 2023-2024 calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

2.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

The benchmark will be re-evaluated so that we make sure the information is valid and up to date.

2021-2022:

2022-2023:

The survey will be published to meet ABET requirements

3 Assessment and Benchmark

Benchmark: A benchmark of 3.00 on a 5-point scale for the MSU Advisory Board Survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Advisory Board Survey asks questions about Program Educational Objectives.

Prior to 2018, the benchmark was 2.50 on a 3-point scale.

3.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	18	4.67	Yes
2017-2018	15	3.80	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

3.1.1 Analysis of Data

2019-2020:

No data was collected because of the COVID-19 pandemic.

2020-2021:

No data was collected because of the COVID-19 pandemic, as well as hurricanes in the local area.

2021-2022:

2022-2023:

No data was collected. A new survey monkey account for Computer Science has been purchased to keep the survey account independent from existing Engineering account. Data will be collected for 2023-2024 calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

3.1.2 Plan for Continuous Improvement

2019-2020:

See 2020-2021.

2020-2021:

The survey is going to be reviewed, as well as the benchmark and assessment to see whether or not it should be retained.

2021-2022:

2022-2023:

The survey will be published to meet ABET requirements

Performance Objective 4 (ABET Program Education Objective 2) The Computer Science program will enable students to understand and apply ethical issues and social aspects of computing science in performing their duties as computer science professionals.

1 Assessment and Benchmark

Benchmark: A benchmark of 3.00 on a 5-point scale for the McNeese State University Alumni survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Alumni survey asks questions about Program Educational Objectives.

Prior to 2018, the benchmark was 2.00 on a 3-point scale.

1.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	31	4.32	Yes
2017-2018	38	3.61	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

1.1.1 Analysis of Data

2019-2020:

2020-2021:

No data was collected due to the continuation of the covid-19 pandemic, and multiple hurricanes hitting the campus.

2021-2022:

2022-2023:

No data was collected in this calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Survey will be re-evaluated to make sure it is still valid and may be replaced.

2021-2022:

2022-2023:

New survey plan has been procured will collect the data every year.

2 Assessment and Benchmark

Benchmark: A benchmark of 3.00 on a 5-point scale for the McNeese State University Employer Survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Employer Survey asks questions about Program Educational Objectives.

Prior to 2015, the benchmark was 2.00 on a 3-point scale.

2.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	12	4.58	Yes
2017-2018	12	4.33	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

2.1.1 Analysis of Data

2019-2020:

2020-2021:

No data was collected due to the continuation of the Covid-19 pandemic and multiple hurricanes hitting campus.

2021-2022:

2022-2023:

No data was collected in this calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

2.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Survey will be re-evaluated to see if it's still valid. The survey may be replaced.

2021-2022:

2022-2023:

New survey plan has been procured will collect the data every year.

3 Assessment and Benchmark

Benchmark: A benchmark of 3.00 on a 5-point scale for the McNeese State University Advisory Board Survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Advisory Board Survey asks questions about Program Educational Objectives.

Prior to 2018, the benchmark was 2.00 on a 3-point scale.

3.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	18	4.44	Yes
2017-2018	15	3.90	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

3.1.1 Analysis of Data

2019-2020:

No data was collected from the advisory board due to the COVID-19 pandemic.

2020-2021:

No data was collected from the advisory board due to the COVID-19 pandemic, as well as multiple hurricanes in the local area.

2021-2022:

2022-2023:

No data was collected in this calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

3.1.2 Plan for Continuous Improvement

2019-2020:

See 2020-2021.

2020-2021:

The survey is going to be re-evaluated, as well as the assessment and benchmark.

2021-2022:

2022-2023:

Industry Advisory Board for Computer Science met for the first time after pandemic and hurricane break. Many new members attended this meeting. This survey will be completed from next year.

Performance Objective 5 (ABET Program Education Objective 3) The Computer Science programs will enable students to continue the learning of new technologies in the computer science area through self- directed professional development or post graduate education.

1 Assessment and Benchmark

Benchmark: 3.00 on a 5-point scale for the McNeese State University Alumni Survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Alumni survey asks questions about Program Educational Objectives.

1.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	31	4.26	Yes
2017-2018	36	3.86	Yes
2020-2021	—	—	—
2021-2022			

2022-2023	—	—	—
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1.1.1 Analysis of Data

2019-2020:

2020-2021:

No data collected Covid-19 and multiple hurricanes hitting campus.

2021-2022:

2022-2023:

No data was collected. A new survey monkey account for Computer Science has been purchased to keep the survey account independent from existing Engineering account. Data will be collected for 2023-2024 calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Survey will be re-evaluated and may be removed.

2021-2022:

2022-2023:

Survey will be published to meet ABET requirements.

2 Assessment and Benchmark

Benchmark: 3.00 on a 5-point scale for the McNeese State University Employer Survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Employer Survey asks questions about Program Educational Objectives.

2.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	12	4.40	Yes
2017-2018	12	4.25	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

2.1.1 Analysis of Data

2019-2020:

2020-2021:

No data collected Covid-19 and multiple hurricanes hitting campus.

2021-2022:

2022-2023:

No data was collected. A new survey monkey account for Computer Science has been purchased to keep

the survey account independent from existing Engineering account. Data will be collected for 2023-2024 calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

2.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Survey will be re-evaluated and may be updated or removed.

2021-2022:

2022-2023:

The survey will be published to meet ABET requirements.

3 Assessment and Benchmark

Benchmark: A benchmark of 3.00 on a 5-point scale for the McNeese State University Advisory Board Survey for each of the PEOs is set.

- Assessment Goal: To track Program Educational Objectives.
- Instrument: The Computer Science Advisory Board Survey asks questions about Program Educational Objectives.

3.1 Data

Academic Year	# of Respondents	Average Score (out of 5)	Benchmark met?
2014-2015	18	4.78	Yes
2017-2018	15	4.07	Yes
2020-2021	—	—	—
2021-2022			
2022-2023	—	—	—

3.1.1 Analysis of Data

2019-2020:

No data was collected due to COVID-19.

2020-2021:

No data was collected due to COVID-19, as well as multiple hurricanes in the area.

2021-2022:

2022-2023:

No data was collected. A new survey monkey account for Computer Science has been purchased to keep the survey account independent from existing Engineering account. Data will be collected for 2023-2024 calendar year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

3.1.2 Plan for Continuous Improvement

2019-2020:

See 2020-2021.

2020-2021:

The survey will be re-evaluated, to see if the assessment and benchmark will be retained.

2021-2022:

2022-2023:

The survey will be published to meet ABET requirements.

Performance Objective 6 To prepare graduates of the BS in Engineering program to practice engineering and to be successful in solving the engineering problems encountered in industry, government, or private practice. (ABET PEO 1)

1 Assessment and Benchmark

Benchmark: 85% of engineering alumni within five years of graduation (2011-2015) who fill out an alumni survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

1.1 Data

Reporting Year	Alumni group	# of surveys completed	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2013-2014	2010-2014	55	56%	42%	100%
2014-2015	2011-2015	54	67%	31%	98%
2015-2016	2012-2016	—	—	—	—
2016-2017*	2013-2017	—	—	—	—
2017-2018	2014-2018	—	—	—	—
2018-2019	2015-2019	—	—	—	—
2019-2020	2016-2020	—	—	—	—
2020-2021**	2017-2021	—	—	—	—
2021-2022	2018-2022	39	37.18%	33%	81%
2022-2023	2019-2022	21	11.11%	50.00%	83.33%

*TBC in fall 2019 with a 5-year frequency.

**No data collected due to Covid-19 and multiple hurricanes hitting campus.

1.1.1 Analysis of Data

2019-2020:

2020-2021:

No data collected Covid-19 and multiple hurricanes hitting campus.

2021-2022:

The benchmark wasn't meant, due to the scale changing from a 3 point scale to a 5 point-scale. Therefore most of the responses fell between 3 and 4 causing a shift in the average.

2022-2023:

The benchmark wasn't met. Also the scale is changed from 1 to 3 to 1 to 5 causing a shift in the average. It is to be noted that only Chemical Engineering Alumni were surveyed this year. Nevertheless steps will be taken to make improvements to address PEO1.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Benchmark will be re-evaluated and possibly removed.

2021-2022:

The benchmark and input table needs to be changed to reflect the new scale and then data will be re-evaluated.

2022-2023:

It is to be noted that only Chemical Engineering Alumni were surveyed this year. Nevertheless steps will be taken to make improvements to address PEO1.

2 Assessment and Benchmark

Benchmark: 85% of the Department of Engineering and Computer Science Industrial Advisory Board (IAB) members who fill out a survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

2.1 Data

Reporting Year	# of IAB members completing survey	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2015	24/27	25%	75%	100%
2018	—	—	—	—
2019*	—	—	—	—
2020**	—	—	—	—
2021**	—	—	—	—
2022	8/40	14.29%	85.7%	100%
2023	9/40	0%	44.4%	100%

*TBC in fall 2019 with a 5-year frequency.

**No data collected due to Covid-19 and multiple hurricanes hitting campus.

2.1.1 Analysis of Data

2019-2020:

No data was collected from the IAB board due to the COVID-19 pandemic and a nation-wide shutdown.

2020-2021:

No data was collected from the IAB board due to the continuation of the COVID-19 pandemic and the multiple hurricanes that hit the area.

2021-2022:

The benchmark was meant. The chart will need to be updated to reflect the 5 point scale.

2022-2023:

The benchmark was met. The chart will need to be updated to reflect the 5 point scale.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

2.1.2 Plan for Continuous Improvement

2019-2020:

See 2020-2021.

2020-2021:

The benchmark is going to be re-evaluated to see if there is a more accurate way to get the boards perspective and expertise.

2021-2022:

The benchmark was meant but due to the survey changing the department needs to use the five-point

scale data.

2022-2023:

The number of meetings with IAB members were increased from 2 to 3 meetings per year.

3 Assessment and Benchmark

Benchmark: 85% of the Southwest Louisiana plant managers and engineering business owners who hire McNeese engineering graduates and fill out a survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

3.1 Data

Reporting Year	# of employers completing survey	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2015	78	35.5%	64.5%	100%
2018	—	—	—	—
2019*	—	—	—	—
2020**	—	—	—	—
2021***	—	—	—	—
2022	19	20%	65%	85%
2023	12	11.11%	44.44%	100%

*TBC in fall 2019 with a 5-year frequency.

**No survey sent out; however, face-to-face meetings were held.

***No survey sent out; however, virtual meetings were held.

3.1.1 Analysis of Data

2019-2020:

No survey data was gathered, however the dean did meet with industry plant managers to discuss McNeese Engineering students. This is where the subject of safety came up, especially important when discussing problem solving.

2020-2021:

No survey data was gathered, however virtual meetings were still held with LAIA with industry plant managers to discuss the effects of adding CHEN 307 into the curriculum.

2021-2022:

The benchmark was meant but the scale needs to be changed as well as the benchmark to reflect the 5 point scale now in use.

2022-2023:

The benchmark was met. The chart will need to be updated to reflect the 5 point scale.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

3.1.2 Plan for Continuous Improvement

2019-2020:

Meetings with LAIA and the dean of the college will continue, so that the engineering curriculum can grow as needed to be as excellent as possible.

2020-2021:

Meeting with LAIA and the dean of the college will continue to be held, so that engineering can stay on the cutting edge.

2021-2022:

2022-2023:

Meeting with industry leaders in various meetings and campus visits to get feedback and enhance engineering curriculum will continue.

Performance Objective 7 To provide graduates with the motivation and skills to advance into positions of increased responsibility and to pursue continuing education or graduate studies. (ABET PEO 2)

1 Assessment and Benchmark

Benchmark: 85% of the engineering alumni within five years of graduation who fill out an alumni survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

1.1 Data

Reporting Year	Alumni group	# of surveys completed	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2013-2014	2010-2014	55	44%	51%	95%
2014-2015	2011-2015	54	52%	43%	95%
2015-2016	2012-2016	—	—	—	—
2016-2017*	2013-2017	—	—	—	—
2017-2018	2014-2018	—	—	—	—
2018-2019	2015-2019	—	—	—	—
2019-2020	2016-2020	—	—	—	—
2020-2021**	2017-2021	—	—	—	—
2021-2022	2018-2022	39	38.06%	48.3%	86%
2022-2023	2019-2022	21	11.11%	44.44%	77.77%

*TBC in fall 2019 with a 5-year frequency.

**No data collected Covid-19 and multiple hurricanes hitting campus.

1.1.1 Analysis of Data

2019-2020:

2020-2021:

No data collected Covid-19 and multiple hurricanes hitting campus.

2021-2022:

The benchmark was meant, however the chart needs to be updated to include the new 5 point scale.

2022-2023:

The benchmark was not met, however the chart needs to be updated to include the new 5 point scale. Also it is to be noted that only Chemical Engineering Alumni were surveyed this year.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Benchmark will be re-evaluated. Possibly removed.

2021-2022:

The scale and benchmark need to be rewritten to be up to date with current ABET standards.

2022-2023:

22.22% of the responses said minor improvement is required in this category. Engineering Faculty were asked to introduce the importance of continuing education and pursuing graduate studies by showcasing recent advances in their field of research and inspire the students with their own experiences in research and their findings.

2 Assessment and Benchmark

Benchmark: 85% of the College of Engineering Industrial Advisory Board (IAB) members who fill out a survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

2.1 Data

Reporting Year	# of IAB members completing survey	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2015	24/27	33.3%	66.6%	100%
2018	—	—	—	—
2019*	—	—	—	—
2020**	—	—	—	—
2021**	—	—	—	—
2022	8/40	28.57%	71	99%
2023	9/40	11.1%	55.6%	100%

*TBC in fall 2019 with a 5-year frequency.

**No data collected due to Covid-19 and multiple hurricanes hitting campus.

2.1.1 Analysis of Data

2019-2020:

No data was gathered due to the COVID-19 pandemic, that caused a nation-wide shutdown from March-May of 2020.

2020-2021:

No data was gathered due to the continuation of the COVID-19 pandemic. As well as hurricanes Laura and Delta that did a lot of damage to the campus and local area.

2021-2022:

The benchmark was meant, however the chart needs to be updated to include the new 5 point scale.

2022-2023:

The benchmark was met, however the chart needs to be updated to include the new 5 point scale.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

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2.1.2 Plan for Continuous Improvement

2019-2020:

See 2020-2021.

2020-2021:

The survey will be re-evaluated as well as the assessment and benchmark, to see if the assessment and benchmark will be kept.

2021-2022:

The scale and benchmark need to be rewritten to be up to date with current ABET standards.

2022-2023:

The scale and benchmark need to be rewritten to be up to date with current ABET standards.

3 Assessment and Benchmark

Benchmark: 85% of the Southwest Louisiana plant managers and engineering business owners who hire McNeese engineering graduates and fill out a survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

3.1 Data

Reporting Year	# of employers completing survey	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2015	78	43%	57%	100%
2018	—	—	—	—
2019*	—	—	—	—
2020**	—	—	—	—
2021***	—	—	—	—
2022	19	21.05%	63.1%	84%
2023	12	20.00%	40.00%	100%

*TBC in fall 2019 with a 5-year frequency.

**No survey sent out; however, face-to-face meetings were held.

***No survey sent out; however, virtual meetings were held.

3.1.1 Analysis of Data

2019-2020:

No data was collected, however the dean did meet with regional plant managers, as well as plant managers in southwest Louisiana at LAIA meetings.

2020-2021:

No data was collected, however the dean continued to meet virtually with LAIA. This will replace the need for a survey.

2021-2022:

The benchmark was meant, however the chart needs to be updated to include the new 5 point scale.

2022-2023:

The benchmark was met, however the chart needs to be updated to include the new 5 point scale.

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3.1.2 Plan for Continuous Improvement

2019-2020:

The meetings that took place in Fall of 2019, as well as others in Spring of 2020 showed that engineering students needed more information on safety in general, but more specifically process safety.

2020-2021:

Thanks to the Fall 2019 meeting CHEN 307 (Introduction to Process Safety) was offered for the first time in Spring 2021, students learned about process safety as well as some general safety fundamentals. The LAIA meetings will continue to be attended so that McNeese engineering will continue to be on the cutting edge.

2021-2022:

The scale and benchmark need to be rewritten to be up to date with current ABET standards.

2022-2023:

Meeting with industry leaders in various meetings and campus visits to get feedback and enhance engineering curriculum will continue.

Performance Objective 8 To produce graduates who are not only ethical and professional as engineers but also are responsible members of their communities and the larger society. (ABET PEO 3)

1 Assessment and Benchmark

Benchmark: 85% of the engineering alumni within five years of graduation who fill out an alumni survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

1.1 Data

Reporting Year	Alumni group	# of surveys completed	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2013-2014	2010-2014	55	44%	55%	100%
2014-2015	2011-2015	54	50%	50%	100%
2015-2016	2012-2016	—	—	—	—
2016-2017*	2013-2017	—	—	—	—
2017-2018	2014-2018	—	—	—	—
2018-2019	2015-2019	—	—	—	—
2019-2020	2016-2020	—	—	—	—
2020-2021**	2017-2021	—	—	—	—
2021-2022	2018-2022	39	27.39%	65%	93%
2022-2023	2019-2023	21	37.5%	37.5%	100%

*TBC in fall 2019 with a 5-year frequency.

**No data collected Covid-19 and multiple hurricanes hitting campus.

1.1.1 Analysis of Data

2019-2020:

2020-2021:

No data collected Covid-19 and multiple hurricanes hitting campus.

2021-2022:

The benchmark was meant, however the chart needs to be updated to include the new 5 point scale.

2022-2023:

The benchmark was met, however the chart needs to be updated to include the new 5 point scale.

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1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

Survey will be re-evaluated and may be removed.

2021-2022:

The scale and benchmark need to be rewritten to be up to date with current ABET standards.

2022-2023:

More interactions with industry experts to the current students and encouraging students to participate in community outreach activities through their student chapters have been emphasized. Meetings with student chapter leaders biweekly by DH has enabled a strong mentoring opportunity for future leaders for better planning and coordination.

2 Assessment and Benchmark

Benchmark: 85% of the College of Engineering Industrial Advisory Board (IAB) members who fill out a survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

2.1 Data

Reporting Year	# of IAB members completing survey	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2015	24/27	17%	83%	100%
2018	—	—	—	—
2019*	—	—	—	—
2020**	—	—	—	—
2021**	—	—	—	—
2022	8/40	0%	85%	85%
2023	9/40	22.22%	33.33%	100%

*TBC in fall 2019 with a 5-year frequency.

**No data collected due to Covid-19 and multiple hurricanes hitting campus.

2.1.1 Analysis of Data

2019-2020:

This data wasn't collected because of the COVID-19 pandemic that shutdown the campus as well as several business operations.

2020-2021:

This data wasn't collected because of the continuation of the COVID-19 pandemic, as well as the multiple hurricanes that hit the local area, which damaged the campus and local area.

2021-2022:

The benchmark was meant, however the chart needs to be updated to include the new 5 point scale.

2022-2023:

The benchmark was met, however the chart needs to be updated to include the new 5 point scale.

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2.1.2 Plan for Continuous Improvement

2019-2020:

See 2020-2021.

2020-2021:

The assessment is going under evaluation to see if it is still a viable option. This correlates with the possible changes to the IAB board.

2021-2022:

The scale and benchmark need to be rewritten to be up to date with current ABET standards.

2022-2023:

The scale and benchmark need to be updated.

3 Assessment and Benchmark

Benchmark: 85% of the Southwest Louisiana plant managers and engineering business owners who hire McNeese engineering graduates and fill out a survey will score this PO with a 2 or higher based on a 3-point scale (1 = unsuccessful, 2 = satisfactorily successful, 3 = very successful).

3.1 Data

Reporting Year	# of employers completing survey	% that scored this PO with a 2	% that scored this PO with a 3	% that scored this PO with a 2 or higher
2015	78	29%	71%	100%
2018	—	—	—	—
2019*	—	—	—	—
2020**	—	—	—	—
2021***	—	—	—	—
2022	19	20%	80%	100%
2023	12	0%	66.67%	100%

*TBC in fall 2019 with a 5-year frequency.

**No survey sent out; however, face-to-face meetings were held.

***No survey sent out; however, virtual meetings were held.

3.1.1 Analysis of Data

2019-2020:

No survey data was collected. However, data from face-to-face meetings were collected by the dean.

2020-2021:

No survey data was collected. However, data from virtual meetings were collected by the dean.

2021-2022:

The benchmark was meant, however the chart needs to be updated to include the new 5 point scale.

2022-2023:

The benchmark was met, however the chart needs to be updated to include the new 5 point scale.

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3.1.2 Plan for Continuous Improvement

2019-2020:

The dean held face-to-face meetings with southwest Louisiana plant managers via LAIA, as well as one regional meeting. This will be continued.

2020-2021:

The dean held virtual meetings with LAIA and gained insight in how to better the engineering program, some changes were discussed and put further into ENGR 110 (Freshman Engineering success).

2021-2022:

The scale and benchmark need to be rewritten to be up to date with current ABET standards.

2022-2023:

The scale and benchmark has to be updated.

Performance Objective 9 To generate internal and external funding sources for program

enhancement and research through writing grant proposals by ENCS faculty.

1 Assessment and Benchmark

Benchmark: Score of 1.1 or higher (Moderate) for number of submitted proposals per faculty per year is the desired achievement level.

- PC1: Number of grant/fund seeking proposals submitted by ENCS faculty.
- Instrument: Annual number of submitted proposals as provided by ENCS faculty in APR data. Data will be evaluated on a 3-tier scale. Achievement levels for PC1 are: Score range of 0-1.0 = Low, 1.1-3.0 = Moderate, and 3.1-5 = High.

1.1 Data

Academic Year	Range of funded proposals per faculty per year	# of successful internal and external proposals	Average # of funded proposals by faculty per year
2019-2020			
2020-2021			
2021-2022	1-2	29	1.6
2022-2023	1-2	24	1.33

Fraction represents Co-PIs.

1.1.1 Analysis of Data

2019-2020:

2020-2021:

2021-2022:

The benchmark was meant for the academic year. This will be a baseline for future years.

2022-2023:

The benchmark was met for the academic year. Discuss with Department Head and Coordinators about raising benchmark.

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1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

2021-2022:

For the next academic year faculty are being encouraged to write for more external funding, especially from private industry.

2022-2023:

Due to faculty leaving before the semester started and now new faculty coming in, the department will encourage faculty to write proposals as much as possible.

2 Assessment and Benchmark

Benchmark: Score of 1.0 or higher (Moderate) for number of successful proposals per faculty per year is the desired achievement level.

- PC2: Number of funded proposals submitted by ENCS faculty. Annual evaluation of number of successful (funded) proposals submitted seeking grant/enhancement internal or external funds.

- Instrument: Annual number of funded proposals as provided by ENCS faculty in APR data. Data will be evaluated on a 3-tier scale. Achievement levels for PC2 are: Score range of 0-0.5 = Low, 0.6-1.5 = Moderate, and 1.6-3 = High.

2.1 Data

Academic Year	Range of funded proposals per faculty per year	# of successful internal and external proposals	Average # of funded proposals by faculty per year
2019-2020			
2020-2021			
2021-2022	0-1	12	.67
2022-2023	1	21	1.16

Fraction represents Co-PIs.

2.1.1 Analysis of Data

2019-2020:

2020-2021:

2021-2022:

The benchmark wasn't met. This is due to a lower amount of proposals being funded than needed to help the department function.

2022-2023:

The benchmark was met. This was due to shearman grants being awarded.

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[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

2.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

2021-2022:

The department will encourage faculty to align research interests with enhancing the department as a whole.

2022-2023:

The department will continue to encourage faculty to write proposals that enhance the department, the department has already been awarded two BoR grants for next year.

Performance Objective 10 To improve classroom teaching by monitoring student evaluations of instruction (SEIs).

1 Assessment and Benchmark

Benchmark: Will be set after two years of data collection.

- PC1: Annual rate of "Student Satisfaction" for all ENCS courses.
- Instrument: Annual review of SEI scores for all ENCS courses by using the average SEI scores for each ENCS faculty. Data is normalized and evaluated on a 3-tier scale. Achievement levels for PC1 are: Score range of 0-65% = Low Satisfaction, 66%-85% = Moderate Satisfaction, and 86-100% = High.

1.1 Data

Academic Year	Range of SEI scores	Average "Student Satisfaction Rate"

2019-2020		
2020-2021		
2021-2022	85.4-89.4%	88%
2022-2023	76.0 - 95.8%	88%

1.1.1 Analysis of Data

2019-2020:

2020-2021:

2021-2022:

The benchmark was met. However the scale will need to be changed to reflect the 5 tier rating SEI scores.

2022-2023:

The benchmark was met.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

2021-2022:

The department would like one more year of data before setting a benchmark.

2022-2023:

High satisfaction 88% was achieved from SEI's. Department will encourage faculty to keep improving student interactions and develop their skills in their field and professional development activities to keep up to date so that faculty can provide rich experiences and professional interactions to the students.

Performance Objective 11 To increase faculty engagement with developmental research and professional and scholarly activities.

1 Assessment and Benchmark

Benchmark: Will be set after two years of data collection.

- PC1: Annual rate of "Professional and Scholarly" activities dedicated toward research and professional development.
- Instrument: Annual review of P&S activities engaged by ENCS faculty. Data is provided by P&S section of APR data. Data is normalized and is evaluated on a 3-tier scale. Achievement levels for PC1 are: Score range of 0-30% = Low, 31-65% = Moderate, and 66-100% = High.

1.1 Data

Academic Year	Range of APR P+S Activity Scores	Average APR P+S Activity Score
2019-2020		
2020-2021		
2021-2022	10-100%	90%
2022-2023	37-95%	78%

1.1.1 Analysis of Data

2019-2020:

2020-2021:

2021-2022:

This year the department scored in the high category for scholarly and professional development. Would like one more year of data before making a benchmark.

2022-2023:

This year the department had 3 new faculty members starting in Spring 2023 and one of the reasons for lower APR median scores. Please note that APR Median score is used instead of Average scores in the data reported.

[Chemical, Civil, and Mechanical Engineering 2019](#) [PDF 143 KB 6/12/20]

[Electrical Engineering and Computer Science 2019](#) [PDF 221 KB 6/12/20]

1.1.2 Plan for Continuous Improvement

2019-2020:

2020-2021:

2021-2022:

The department is building data to reach a benchmark once the 2022-23 academic year data is in, a benchmark will be made.

2022-2023:

The new department head (DH) evaluated this year APR's and met with each faculty member to discuss about the importance of improving overall annual performance and suggested areas of improvement in professional and scholarly activities. This year, DH required each faculty member to set yearly goals and provided methods and approaches to faculty to achieve the goals. Next year DH will evaluate the APR and faculty goals and suggest benchmark in 2023-2024 report.