

Department of Mathematical Sciences

#10 Plan cycle - 10 Plan cycle 2023/2024 7/1/23 - 6/30/24

Introduction

Unit Mission:

The Department of Mathematical Sciences (DMS) supports the mission of McNeese State University by offering quality programs of study in the mathematical sciences and secondary mathematics education for degree and nondegree students. These programs include college-level courses for majors, college-level service courses for nonmajors, and special courses by which professionals may update their knowledge in various areas of the mathematical sciences. The department fosters programs in cooperation with area agencies to upgrade the quality of mathematics education in the region. The department also promotes and encourages scholarly activities and community and University service from all DMS faculty.

Institutional Mission Reference:

The DMS supports the institutional mission of offering curricula distinguished by academic excellence. We offer a baccalaureate degree in mathematical sciences with concentrations in mathematics, mathematics education, physics education, statistics, and physics. We also offer a master's degree in mathematical sciences, with concentrations in mathematics, computer science, and statistics.

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

1 Assessment and Benchmark

Benchmark: Increase enrollment by 5% each year, overall and in each undergraduate program offered by the department.

Prior to 2018-2019, the benchmark was track undergraduate student completers and enrollment at each level. Maintain or exceed 2012-2013 levels of declared majors/concentrations:

- MATH BS Mathematics (inactive effective 201140)
- MSCI BS Mathematical Sciences (effective 201140)
 - CMPS Computational Sciences (effective 201940)
 - ° MATH Mathematics
 - MPHY Mathematical Physics
 - MTED Mathematics Education Grades 6-12
 - PYED Physics Education Grades 6-12 (effective 201540)
 - STAT Statistics
- MTED BS Mathematics Education Grades 6-12 (inactive effective 201140)

1.1 Data

2018-2019:

Mojor	Cono			Su	mme	r				F	all					S	pring		
Major	Conc.	F	S	J	Sr	Т	СМР	F	S	J	Sr	Т	CMP	F	S	J	Sr	Т	CMP
	MATH	0	1	0	4	5	0	3	2	2	8	15	2	3	1	3	9	16	4
	MPHY	0	0	1	1	2	0	0	0	1	1	2	0	0	0	1	2	3	2
MSCI	MTED	1	1	2	3	7	0	11	3	7	4	25	2	3	9	3	4	19	1
MSCI	PYED	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	0	1	0
	STAT	0	0	1	1	2	0	2	0	2	2	6	0	0	1	0	2	3	0
	(blank)	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
Grand	d Total	1	2	4	9	16	0	17	6	12	16	51	4	7	11	7	17	42	7

2019-2020:

Major	Cono			Su	mme	r					Fall					S	oring		
wajoi	Conc.	F	s	J	Sr	Т	СМР	F	S	J	Sr	Т	СМР	F	s	J	Sr	Т	СМР
	MATH	1	0	2	3	6	0	3	1	2	5	11	2	3	0	2	6	11	3
	MPHY	1	0	0	0	1	0	1	0	0	1	2	0	0	0	0	3	3	1
MSCI	MTED	0	3	1	1	5	0	6	5	2	6	19	0	8	6	3	7	24	2
101301	PYED	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	0
	STAT	0	0	0	0	0	0	0	1	0	1	2	0	0	0	1	0	1	0
	(blank)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand	d Total	2	4	3	4	13	0	10	8	4	13	35	2	11	7	6	16	40	6

2020-2021:

Major	Cono			Su	mme	r				F	Fall					S	pring		
Major	Conc.	F	S	J	Sr	Т	CMP	F	S	J	Sr	Т	CMP	F	S	J	Sr	Т	CMP
	CMPS	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0
											\square						\square		

Department of Mathematical Sciences

	MATH	1	0	1	3	5	1	1	1	2	3	7	1	1	1	3	4	9	3
	MPHY	0	0	1	1	2	0	3	0	1	3	7	0	3	0	0	2	5	0
MSCI	MTED	0	2	3	1	6	0	7	8	5	5	25	0	4	7	4	5	20	2
	PYED	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
	STAT	0	0	1	1	2	0	0	0	1	1	2	0	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
Grand	l Total	2	2	6	6	16	1	11	10	9	12	42	1	8	9	7	11	35	5

2021-2022:

Mojor	Cono			Su	mme	r				ŀ	Fall					S	pring		
Iviajoi	Conc.	F	S	J	Sr	Т	СМР	F	S	J	Sr	Т	СМР	F	S	J	Sr	Т	CMP
	CMPS	0	0	1	0	1	0	0	0	1	1	2	0	0	0	1	1	2	0
	MATH	0	1	0	3	4	0	0	1	1	6	8	0	0	1	0	6	7	2
	MPHY	0	1	0	1	2	0	1	2	0	2	5	2	1	0	1	0	2	0
MSCI	MTED	1	1	5	1	8	0	7	5	11	3	26	0	3	5	6	6	20	1
	PYED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	STAT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
	(blank)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
Grand	d Total	1	3	6	5	15	0	8	8	13	12	41	2	5	6	9	13	33	2

2022-2023:

Major	Cono			Su	mme	r					Fall					S	pring		
Major	Conc.	F	s	J	Sr	Т	СМР	F	s	J	Sr	Т	СМР	F	s	J	Sr	Т	CMP
	CMPS	1	0	1	0	2	0	1	0	1	2	4	0	0	1	1	2	4	0
	MATH	1	0	1	4	6	0	0	1	1	6	8	0	2	1	4	6	13	0
	MPHY	0	0	1	0	1	0	1	1	0	0	2	0	0	3	0	0	3	0
MSCI	MTED	0	0	3	2	5	0	1	4	6	6	17	1	2	1	4	8	15	1
	PYED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	STAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	(blank)	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0
Grand	d Total	2	0	7	6	15	0	3	6	9	14	32	1	4	6	9	16	35	1

2023-2024:

Mojor	Cono			Su	mme	r					Fall					S	pring		
iviajoi	Conc.	F	S	J	Sr	Т	CMP	F	S	J	Sr	Т	СМР	F	S	J	Sr	Т	СМР
	CMPS	0	1	0	1	2	0	0	0	1	2	3	0	0	0	1	2	3	1
	MATH	0	0	1	3	4	0	1	1	0	10	12	1	1	0	0	7	8	2
	MPHY	0	0	1	1	2	0	1	0	1	1	3	1	1	0	1	0	2	1
MSCI	MTED	0	0	0	1	1	0	4	0	2	7	13	1	2	1	0	7	10	1
	PYED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	STAT	0	0	0	0	0	0	0	1	0	0	1	0	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
Grand	l Total	0	1	2	6	9	0	6	2	4	20	32	3	4	1	2	16	23	5

Percentage Change between 2018-2019:

Major	Fall	Total	% Change
MSCI	2018	51	21 270/
NISCI	2019	35	-31.37%
Total	2018	51	24 270/
Total	2019	35	-31.37%

Percentage Change between 2019-2020:

Major	Fall	Total	% Change
MSCI	2019	35	200/
MSCI	2020	42	20%
Total	2019	35	200/
Total	2020	42	20%

Percentage Change between 2020-2021:

Major	Fall	Total	% Change
MSCI	2020	42	2 290%
NISCI	2021	41	2.300%
Total	2020	42	2 2900/
Total	2021	41	2.300%

Percentage	Change	between	2021-2022:
rerectinage	onange	Detween	2021 2022.

Major	Fall	Total	% Change
MSCI	2021	41	21.0519/
MSCI	2022	32	-21.951%
Total	2021	41	24.0549/
Total	2022	32	-21.951%

Percentage Change between 2022-2023:

Major	Fall	Total	% Change
MSCI	2022	32	0.09/
MSCI	2023	32	0.0%
Total	2022	32	0.09/
lotai	2023	32	0.0%

1.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

While we lost students in the program comparing Fall 18 to Fall 19, particularly in Math Ed, we gained students going from Fall 19 to Spring 20 and ended up with almost the same number of students in Spring

20 as we had in Spring 19. Therefore this rebound helped the enrollment to stabilize. One change that we made this year that has helped the Math Ed concentration is the appointment of Christine Eastman as a Math Ed advisor. She is also a co-coordinator for recruitment and is well connected to the education department and state education initiatives. She will continue to assist students with Praxis preparation which will greatly help our retention of Math Ed students.

2020-2021:

We are very pleased that we have met our benchmark, achieving a 20% increase from Fall 19 to Fall 20. In particular, we gained students in the Mathematical Physics and Math Education concentrations. Toward continuous improvement, we plan to involve more DMS faculty in the 'All Call' recruitment effort.

2021-2022:

We did not meet the benchmark. We are encouraged by the fact that the percentage decrease was less than the University-wide enrollment percentage decrease. To try and increase enrollment, we have a new brochure to hand out to prospective students that displays our current concentrations, offerings, and student organizations.

2022-2023:

2023-2024:

We did not meet the benchmark, but we are encouraged that enrollment held steady. We have started new initiatives in order to increase enrollment including purchasing branded recruiting materials. We also have a faculty member writing a grant to perform outreach with local schools.

2 Assessment and Benchmark

Benchmark: Increase enrollment by 5% each year, overall and in each graduate program offered by the department.

- MSCI MS Mathematical Sciences
 - ° CSCI Computer Science
 - MATH Mathematics
 - STAT Statistics

Prior to 2021-2022, the benchmark was to track graduate student enrollment in each concentration. Maintain or exceed previous year's enrollment numbers of declared majors.

2.1 Data

Graduate Enrollment:

Major	Conc	20)18-20	19	20)19-20	20	20)20-20	21	20	21-20	22	20	22-20	23
Major	Conc.	U	F	S	U	F	S	υ	F	S	U	F	S	U	F	S
	CSCI	1	4	3	1	3	1	0	0	0	0	1	2	0	2	1
MSCI	MATH	5	6	7	2	6	7	1	5	2	3	3	3	2	2	2
	STAT	0	0	1	1	3	5	2	5	5	4	3	4	2	3	4
Тс	otal	6	10	11	4	12	13	3	10	7	7	7	9	4	7	7

Major Conc		2023-2024		2024-2025		2025-2026		2026-2027			2027-2028					
Major	Conc.	U	F	s	υ	F	s	υ	F	s	U	F	S	U	F	S
	CSCI	0	1	1												
MSCI	MATH	1	1	1												
	STAT	2	1	1												
То	tal	3	3	3												

Graduate Completers:

Mojor	Cono	20	18-20	19	20	19-20	20	20	20-20	21	20	21-20	22	20	22-20	23
Major	Conc.	U	F	S	U	F	S	U	F	S	U	F	S	U	F	S
	CSCI	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0
MSCI	MATH	2	1	2	0	0	2	0	2	0	0	0	1	0	1	0
	STAT	0	0	0	0	0	0	0	0	1	1	0	1	0	0	1
То	otal	2	1	2	0	2	3	0	2	1	1	0	2	0	1	1

Major	Major Conc		2023-2024		2024-2025		2025-2026		2026-2027			2027-2028				
Iviajoi	Conc.	U	F	S	υ	F	s	U	F	S	U	F	s	U	F	S
	CSCI	0	0	0												
MSCI	MATH	1	0	1												
	STAT	1	0	0												
То	otal	2	0	1												

Percentage Change between 2018-2019:

Major	Fall	Total	% Change
MSCI	2018	10	209/
MSCI	2019	12	20%
Total	2018	10	209/
Total	2019	12	20%

Percentage Change between 2019-2020:

Major	Fall	Total	% Change
MSCI	2019	12	16 6670/
NISCI	2020	10	-10.007 %
Total	2019	12	16 6670/
Total	2020	10	-10.007%

Percentage Change between 2020-2021:

Major	Fall	Total	% Change		
MSCI	2020	10	200/		
MSCI	2021	7	-30%		
Total	2020	10	200/		
lotai	2021	7	-30%		

Percentage Change between 2021-2022:

Major	Fall	Total	% Change
	2021	7	

MSCI	2022	7	0%
Total	2021	7	09/
TOLAI	2022	7	U%

Percentage Change between 2022-2023:

Major	Fall	Total	% Change
MSCI	2022	7	57 1 4 2 9/
IVISCI	2023	3	-57.143%
Total	2022	7	57 1 4 2 9/
lotai	2023	3	-57.143%

2.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

From Spring 19 to Spring 20, the number of students in the Math concentration held steady, while the Stat concentration saw a nice increase.

The gain seen in the Stat concentration is due primarily to students who have taken an interest in doing research projects with Dr. Berken. She now advises both undergrad and graduate students in the statistics concentration. In an effort to continuously improve, Dr. Lee has also been added as a statistics advisor. Her area of research is different from Dr. Berken's and will provide another research outlet for students concentrating in statistics. This should draw additional students to the program.

We will continue our efforts to maintain and strengthen the Math concentration by reaching out to graduates from similar disciplines such as Engineering and Math Education. We have had good success recruiting students from these areas.

Recruitment and retention in the CS concentration is hindered by the lack of availability of 600 level CS electives.

2020-2021:

Overall the enrollment in our MS program decreased this year. The statistics concentration again saw an increase. Dr. Berken and Dr. Lee continue to work with these students through advising and mentoring of special projects. A number of our promising math undergraduates opted to enroll in PhD programs at other institutions immediately after completing their BS degrees. This has affected our MS program enrollment. We will renew efforts to make undergraduates aware of senior privilege opportunities as this has been an effective way to recruit graduate students in the past.

2021-2022:

We did not meet the Benchmark. Enrollment has appeared to hold steady with increases in Summer and Spring enrollment and only a slight decrease in Fall enrollment. Graduate information is also included in the new brochure.

2022-2023:

2023-2024:

We did not meet the benchmark. We saw a drop in enrollment due to several students completing their degrees. Unfortunately, we did not have incoming students who replaced them. We have started a new dual-degree program in hopes of capturing undergraduate students to start their graduate degrees before graduating. We have also seen interest in international students that we are evaluating methods to recruit those students to increase enrollment.

3 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.
- A retention rate of 55% from Y1 to Y3.
- A retention rate of 45% from Y1 to Y4.
- A 4-year graduation rate of 35%.
- A 5-year graduation rate of 40%.
- A 6-year graduation rate of 45%.

Major:

- MSCI Bachelor of Science in Mathematical Sciences
- MSCP Bachelor of Science in Mathematical Sciences

3.1 Data

Fall 2012 Cohort:

Major Retention

		Persi	stence		F	Reten	tion Rat	е			G	radua	tion Ra	te	
Major C	Cohort Size	R	ate	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year
	0120	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	11*	7	63.6	3	27.3	3	27.3	3	27.3	1	9.1	1	9.1	1	9.1
MSCP	1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

*2 students were previously undeclared before declaring MSCI.

Fall 2013 Cohort:

Major Retention

		Persi	stence		F	Reten	tion Rat	е			G	radua	ation Ra	te	
Major	Cohort Size	R	ate	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-	Year	5-	Year	6-	Year
, Size	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
MSCI	6*	6	100	3	50.0	2	33.3	1	16.7	1	16.7	1	16.7	1	16.7

*2 students were previously undeclared before declaring MSCI.

Fall 2014 Cohort:

Major Retention

		Persi	stence		R	letent	ion Rat	е			G	radua	tion Ra	te	
Major Siz	Cohort Size	R	late	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year
	0.20	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	5	1	20.0	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Fall 2015 Cohort:

Major Retention

Major Co		Persi	stence		F	Reten	tion Rat	е			G	radua	ation Ra	te	
Major	Cohort Size	R	late	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-	Year	5-	Year	6-	Year
	0.20	# %	#	%	#	%	#	%	#	%	#	%	#	%	
MSCI	10	8	80.0	7	70.0	6	60.0	3	30.0	3	30.0	3	30.0	3	30.0

Fall 2016 Cohort:

Major Retention

Major		Persi	stence		F	Reten	tion Rat	е			G	radua	ation Ra	te	
Major Coho Size	Cohort Size	R	late	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-	Year	5-	Year	6-	Year
	0.20	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	15	8	53.3	5	33.3	5	33.3	4	26.7	2	13.3	2	13.3	3	20.0

Fall 2017 Cohort:

Major Retention

Major		Persi	stence		F	Reten	tion Rat	е			G	radua	ation Ra	te	
Major C	Cohort Size	R	late	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-	Year	5-	Year	6-	Year
	0.20	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	5	2	40.0	3	60.0	2	40.0	2	40.0	1	20.0	1	20.0	1	20.0

Fall 2018 Cohort:

Major Retention

		Persi	stence		F	Reten	tion Rat	е			G	radua	tion Ra	ıte	
Major	Cohort Size	R	late	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year
	Size # %		%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	12	6	50.0	5	41.7	4	33.3	3	25.0						

Fall 2019 Cohort:

Major Retention

		Persi	stence		F	Reten	tion Rat	е			G	radua	tion Ra	ite	
Major Cohort Size	R	ate	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year	
	0.20	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	7	6	85.7	4	57.1	2	28.6	3	42.9						

Fall 2020 Cohort:

Major Retention

Major C		Persi	stence		F	Retent	ion Rat	е			G	radua	tion Ra	te	
Major	Cohort Size	R	ate	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year
	Size _	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	9	5	55.6	2	22.2	0	0.0	0	0.0						

Fall 2021 Cohort:

Major Retention

Major		Persi	stence		F	Retent	ion Rate	Э			G	radua	tion Ra	ite	
Major Cohort Size	Cohort Size	R	late	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year
	Size	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	7	4	57.1	2	28.6	2	28.6								

Fall 2022 Cohort:

Major Retention

		Persi	stence		R	etent	ion Rat	е			G	radua	tion Ra	te	
Major Cohort Size	Cohort Size	R	ate	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
MSCI	3	2	66.7	1	33.3										

Fall 2023 Cohort:

Major Retention

		Persi	stence		F	Retent	ion Rat	е			G	radua	tion Ra	te	
Major Coho Size	Cohort Size	R	late	Y1	to Y2	Y1	to Y3	Y1	to Y4	4-`	Year	5-`	Year	6-`	Year
	Size	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSCI	4	3	75.0												

Summary of Persistence, Retention, and Graduation Rates:

Fall	Cohort	Persistence	Retention Rate		Graduation Rate			
Cohort	Size	Rate	Y1 to Y2	Y1 to Y3	Y1 to Y4	4-Year	5-Year	6-Year
2013	6	100	50.0	33.3	16.7	16.7	16.7	16.7
2014	5	20.0	20.0	0.0	0.0	0.0	0.0	0.0
2015	10	80.0	70.0	60.0	30.0	30.0	30.0	30.0
2016	15	53.3	33.3	33.3	26.7	13.3	13.3	20.0
2017	5	40.0	60.0	40.0	40.0	20.0	20.0	20.0
2018	12	50.0	41.7	33.3	25.0			
2019	7	85.7	57.1	28.6	42.9			
2020	9	55.6	22.2	0.0	0.0			
2021	7	57.1	28.6	28.6				
2022	3	66.7	33.3					
2023	4	75.0						
Average	7.5	62.1	41.6	28.6	22.7	16.0	16.0	17.3

3.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Of the 7 students in the 2019 cohort, 6 persisted from fall to spring, meeting the 85% persistence rate benchmark. Just over 70% were retained from Y1 to Y2 as McNeese students, but one of these students changed majors.

2020-2021:

Of the 9 students in the 2020 cohort, 8 persisted from fall to spring, meeting the 85% persistence rate benchmark, however, 3 of these students changed majors (ie. they did not persist in the MSCI program).

We are pleased to see that they enrolled in the spring, even if they moved to a different major, because of the many hardships which could have prevented them from reenrolling in this unprecedented year.

2021-2022:

- Benchmarks have been met every year except the 2019 cohort.
- The Fall 2015 cohort graduate rate benchmark was met.
- Fall 2016, 2017, 2018, and 2020 cohorts have been well retained, even though they may not have stayed as a math major.
- Fall 2019 rates suffered due to COVID and hurricanes, but the Fall 2022 rates have recovered.

2022-2023:

2023-2024:

The benchmark was not met. While it was not met, with the small sample size, the data is not reliable. Data has been affected by preparation level of incoming students. Recently we have started using the ALEKS PPL software in hopes of placing students in the correct course which in the long run should improve the data of our Math majors. We are looking at ways to increase student engagement in outside activities to build a sense of community.

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

1 Assessment and Benchmark

Benchmark: The BS in Mathematical Sciences program faculty meet once per academic year to review student progress, curricular offerings, and appropriate professional contacts and opportunities.

1.1 Data

2019-2020:

Two full faculty meetings and several meetings of subgroups of faculty were held. In the later half of Spring 20, all communication took place remotely using email, moodle, and zoom in response to Covid 19.

2020-2021:

Two full faculty meetings were held virtually by zoom. Individual and small group meetings were also held virtually. Communication by email was key to completion of departmental business and decision making.

2021-2022:

Our Fall 2021 meeting resumed in person. Individual and small group meetings also continued in person.

2022-2023:

2023-2024:

Faculty met at the beginning of the Fall 2023 semester. Individual and small group meeting continued throughout the year to review student progress and curriculum.

1.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Course designed for Elementary math teachers were redesigned this year. A great deal of discussion took place to determine whether these courses would be placed on the Statewide Articulation Matrix. At the request of Dr. Ogea, they were not added to the matrix. Plans are underway to eliminate Math 231 and retain Stat 231 in its place eliminating the need to crosslist these courses.

2020-2021:

As of this year's curriculum changes, Math 231 is no longer avaiable in the catalog and Stat231 is now in use by all programs previously requiring Math 231. Discussion has taken place regarding modifying some concentrations due to loss of faculty and limited ability to offer certain courses. Student progress and strategies to address their current needs were reviewed through communication with individual advisors.

2021-2022:

In-person meetings helped promote communication and collaboration. Changes were made to Math 105, 113, 170, and 190 to include using ALEKS as a placement tool.

2022-2023:

2023-2024:

As a result of meetings, Math 177 was introduced as a way to allow students to complete the Precalculus sequence in one course. Meetings will continue to revise general education courses to meet university needs.

2 Assessment and Benchmark

Benchmark: The MS in Mathematical Sciences program faculty will meet once per academic year to review student progress, curricular offerings, and appropriate professional contacts and opportunities.

2.1 Data

2019-2020:

Two full faculty meetings and several meetings of subgroups of faculty were held. In the later half of Spring 20, all communication took place remotely using email, moodle, and zoom in response to Covid 19.

2020-2021:

Two full faculty meetings were held virtually by zoom. Individual and small group meetings were also held virtually. Communication by email was key to completion of departmental business and decision making.

2021-2022:

Our Fall 2021 meeting resumed in person. Individual and small group meetings also continued in person.

2022-2023:

2023-2024:

Faculty met at the beginning of the Fall 2023 semester. Individual and small group meeting continued throughout the year to review student progress and curriculum.

2.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

A greater number of graduate level courses will be offered in hybrid or online format. This trend started before Covid 19 hit, but is now greatly spurred on by the need to move classes online. Faculty are redesigning courses to facilitate this change.

2020-2021:

Work continues on development of hybrid courses at the graduate level. Communication with advisors is key to addressing the challenges presented by lower enrollment in the graduate program. Class offerings are reviewed to ensure viability.

2021-2022:

In-person meetings helped promote communication and collaboration. We discussed which courses would meet the needs of our current graduate students and reviewed courses that had not been taught recently.

2022-2023:

2023-2024:

Meetings focused on meeting needs of the current graduate student population. A change in curricular offerings allowed the department to graduate two students in Summer 2023. Faculty will continue to meet to evaluate offerings and ensure offerings are current and meet the needs of enrolled students.

Performance Objective 3 Graduates will find employment in mathematical science careers or further their education in the mathematical sciences.

1 Assessment and Benchmark

Benchmark: 80% of graduates of the BS in Mathematical Sciences will find employment in mathematical science careers or further their education in the mathematical sciences within two years of graduation.

1.1 Data

2019-2020:

We consider only the Fall 2018-Spring 2019 cohort for this year's data. 9 of the 11 graduates in this cohort are either pursuing further studies or are employed in a math-related area.

2020-2021:

We consider only the Fall 2019-Summer 2020 cohort for this year's data. 6 of the 9 graduates in this cohort are known to be either pursuing further studies or are employed in a math-related area. We do not have information on 3 of the graduates in this cohort.

2021-2022:

We consider only the Fall 2020-Spring 2021 cohort for this year's data. 5 of the 6 graduates in this cohort are known to be either pursuing further studies or are employed in a math-related area. We do not have information on 1 of the graduates in this cohort.

2022-2023:

2023-2024:

We consider only the Fall 2022-Spring 2023 cohort for this year's data. Both of the graduates in this cohort were employed as teachers in local school districts.

1.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Benchmark is met with a success rate of 82%.

2020-2021:

Since we do not have employment information on 3 of the 9 graduates in this cohort, we do not know if the benchmark is met. However, the remaining 6 are involved in math-related jobs or studies.

2021-2022:

Benchmark is met with a success rate of 83%.

2022-2023:

2023-2024:

The benchmark was met with a success rate of 100%. We will continue to support our graduates in finding employment.

2 Assessment and Benchmark

Benchmark: 80% of graduates of the MS in Mathematical Sciences program will find employment in mathematical science careers or further their education in the mathematical sciences within two years of graduation.

2.1 Data

2019-2020:

We consider only the Fall 2018-Spring 2019 cohort for this year's data. All 3 of the MS graduates in this cohort are either pursuing further studies or are employed in a math-related area.

2020-2021:

We consider only the Fall 2019-Summer 2020 cohort for this year's data. 3 of the 5 MS graduates in this cohort are known to be either pursuing further studies or are employed in a math-related area. We do not have information on 2 of the graduates in this cohort.

2021-2022:

We consider only the Fall 2020-Spring 2021 cohort for this year's data. 2 of the 3 MS graduates in this cohort are known to be either pursuing further studies or are employed in a math-related area. We do not have information on 1 of the graduates in this cohort.

2022-2023:

2023-2024:

We consider only the Fall 2022-Spring 2023 cohort for this year's data. Both of the graduates in this cohort were employed in a Mathematical Sciences related field.

2.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Benchmark is met with a success rate of 100%.

2020-2021:

Since we do not have employment information on 2 of the 5 graduates in this cohort, we do not know if the benchmark is met. However, the remaining 3 are involved in math-related jobs or studies.

2021-2022:

Since we do not have employment information on 1 of the 3 graduates in this cohort, we do not know if the benchmark is met.

2022-2023:

2023-2024:

The benchmark was met with a success rate of 100%. We will continue to support our graduates in finding employment.

Performance Objective 4 Engage in collaborative ventures and campus and community activities that enhance economic development, cultural and artistic growth, and or educational experiences for the SWLA region and beyond.

1 Assessment and Benchmark

Benchmark: 50% of faculty will serve as academic advisors.

1.1 Data

Academic Year	Faculty members that served as faculty advisors		
	#	%	
2013-2014	_	60%	
2014-2015	_	56%	
2015-2016	_	50%	
2016-2017	-	53%	
2017-2018	8/14	57%	
2018-2019	9/16	56%	
2019-2020	11/16	69%	
2020-2021	9/15	60%	
2021-2022	9/15	60%	
2022-2023			

1.1.1 Analysis of Data and Plan for Continuous Improvement

9/18

2019-2020:

2023-2024

The benchmark is met. Two new advisors were added, Dr. Christine Eastman and Dr. Meesook Lee, in order to better serve students in the MAth Education and Statistics concentrations.

50%

2020-2021:

The benchmark is met. Two faculty members discontinued their service as advisors this year. Roles of advisors will be reviewed and adjusted as needed.

2021-2022:

The benchmark is met. One faculty member discontinued advising due to resignation; however, one of our senior instructors assumed those advisor duties. Roles of advisors will be reviewed and adjusted as needed.

2022-2023:

2023-2024:

Benchmark is met. The number of advisors is unchanged, but the percentage of faculty being advisors has decreased due to the hiring of several new instructors. We are reviewing the list of senior instructors to determine who would be a good fit to advise students.

2 Assessment and Benchmark

Benchmark: 50% of faculty will serve on college or University committees.

Prior to 2018-2019, the benchmark was 40% of faculty members.

2.1 Data

Academic Year	Faculty members that served on college or University committees		
	#	%	
2013-2014	—	50%	
2014-2015		50%	
2015-2016	_	50%	
2016-2017	_	53%	
2017-2018	8/14	57%	
2018-2019	8/16	50%	
2019-2020	8/16	50%	
2020-2021	8/15	53%	
2021-2022	10/15	67%	
2022-2023			
2023-2024	8/18	44%	

2.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

The benchmark was met.

In addition to the committees listed above, Dr. Christine Gorton now serves on the University Advising Committee.

2020-2021:

The benchmark was met. University committee membership remained roughly the same as last year for our department. Committee activities moved to a virtual environment.

2021-2022:

The benchmark was met. Our department continues to serve on many University committees. A number of these relate to advising and the growing challenges associated with freshman mathematics and incoming freshmen.

2022-2023:

2023-2024:

The benchmark was not met. This is due to a large number of new faculty members who have not yet established themselves in the campus community. In the next year, we will encourage new faculty members to get involved in University affairs.

3 Assessment and Benchmark

Benchmark: At least two meetings per semester of the local student chapter of the Mathematical Association of America (MAA) will be held.

Prior to 2016-2017, the benchmark was for monthly meetings, however, this was revised to two per semester.

3.1 Data

2019-2020:

At least two meetings per semester of the local student chapter of the MAA were held.

2020-2021:

While students did participate virtually in MAA competitions, local meetings of the MAA were not held this year due to hurricanes, Covid, etc.

2021-2022:

At least two meetings per semester of the local student chapter of the MAA were held.

2022-2023:

2023-2024:

Two meetings were held in the Fall semester and two meetings were held in the spring semester.

3.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

These meetings resulted in collaboration among students to not only participate in the annual regional MAA meeting and competitions, but also to carry out an impressive upgrade to the appearance of our tutoring center. Students involved in MAA gathered during fall break to paint formulas and helpful information on the walls of the tutoring center in a very aesthetically pleasing fashion.

2020-2021:

Benchmark was not met. Faculty and students look forward to returning to regular MAA meetings in the upcoming year.

2021-2022:

The benchmark was met. We plan to continue holding at least two meetings per semester to engage our undergraduate and graduate students.

2022-2023:

2023-2024:

The benchmark was met. We plan to continue holding at least two meetings per semester to engage our undergraduate and graduate students. This year the students took more of a role in running meetings. We will continue to encourage student involvement.

4 Assessment and Benchmark

Benchmark: Student teams will participate in an MAA mathematics team competition in the spring in conjunction with the annual section meeting of the MAA. Individual students will compete in the annual integration bee held at the same meeting.

Academic Year	# of math students that attended the MAA meeting	# of students that competed in the integration bee	# of students that competed in the team competition	# of students giving talks
2013-2014	8	4	—	—
2014-2015	8	5	5	3
2015-2016	8	3	4	3
2016-2017	9	5	5	3
2017-2018	10	7	8	0
2018-2019	13	6	8	2
2019-2020	15	7	8	1
2020-2021	8	2	8	0
2021-2022	6	4	6	0
2022-2023				
2023-2024	11	6	8	0

4.1 Data

4.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Haile Gilroy took first place in the graduate student paper competition.

2020-2021:

8 students attended the virtual conference this year to participate in the competitions. We were pleased that we had enough students interested in the team competition to form 2 teams. Disaster fatigue did not dampen their enthusiam for carrying on this tradition.

2021-2022:

6 students attended attended the conference this year which resumed in person. One of the undergraduate teams placed 4th in the MAA Undergraduate Team Competition at the MAA Section meeting in Natchitoches in March.

2022-2023:

2023-2024:

A large number of students attended and competed at the MAA regional conference in New Orleans. An endowed professorship provided for registration and travel expenses for students. To encourage better competition results, we are encouraging students to hold practice sessions prior to the conference.

5 Assessment and Benchmark

Benchmark: The Department will organize volunteers to help at the McNeese annual Literary Rally; MathCounts, a national middle school mathematics competition; and the American Mathematics Competition, a high school mathematics competition. These events provide recruiting opportunities.

5.1 Data

2019-2020 :

For MathCounts the department provided seven faculty and three students volunteers. There were nine faculty volunteers for the Literary Rally and eight faculty and 5 student volunteers for the AMC.

2020-2021:

Literary Rally, MathCounts, and the American Mathematics Competition were not held on campus this year due to hurricane damage, COVID, etc.

2021-2022:

Faculty members volunteered to proctor exams for Literary Rally. MathCounts and the American Mathematics Competition were not held on campus this year due to hurricane damage and COVID.

2022-2023:

2023-2024:

Faculty members volunteered to proctor exams for Literary Rally and the American Mathematics Competition. Faculty members also volunteered to grade MathCounts problems.

5.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Volunteer participation for MathCounts was exceptionally good this year. The Engineering Society which sponsors the event expressed gratitude for our help. We are also pleased that we were able to resume our AMC competition this spring before Covid 19 became an issue.

2020-2021:

Benchmark was not met as competitions were not held. We look forward to resuming these activities next year.

2021-2022:

Benchmark was not met as some competitions were not held. New faculty members were assigned the responsibility of holding the American Mathematics Competition on campus for next year.

2022-2023:

2023-2024:

All three events were held this year. We are pleased with the number of faculty members that have volunteered and will encourage faculty involvement in the future. In the future we will advertise for student volunteers for some of these events.

6 Assessment and Benchmark

Benchmark: 40% of faculty will be involved in recruiting students.

Prior to 2016-2017, the benchmark was 25% of faculty members.

6.1 Data

Academic Year	Faculty members involved in recruiting students		
	#	%	
2013-2014		50%	
2014-2015	—	62%	
2015-2016	_	50%	
2016-2017	_	40%	
2017-2018	—	29%	
2018-2019	7/16	44%	
2019-2020	5/16	31%	
2020-2021	4/15	27%	
2021-2022	5/15	33%	
2022-2023			
2023-2024	6/18	33%	

6.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

The benchmark of 40% was not met. Recruitment coordinators for our department tend to try to cover all recruiting duties themselves rather than creating new obligations for other faculty members. Efforts will be made to change this practice in the coming year.

2020-2021:

The benchmark of 40% was not met. Involvement in recruitment activities was inhibited by the extreme hardships of this year. Faculty will be encouraged to participate in the ALL CALL effort in addition to preview days.

2021-2022:

The benchmark was not met; however, we had more faculty involvement in several recruiting events.

2022-2023:

2023-2024:

The benchmark was not met, but results remained steady. We are encouraging more faculty to perform outreach activities including with local schools.

Performance Objective 5 Demonstrate excellence in teaching in order to enhance student recruitment, retention, and graduation.

1 Assessment and Benchmark

Benchmark: The department will achieve an average score of at least 85% on the student evaluations of instruction (SEIs).

Prior to 2020-2021, the benchmark was 80%. Prior to 2016-2017, the benchmark was 70%.

1.1 Data

Academic Year	Average score
2013-2014	90.84%
2014-2015	91.00%
2015-2016	90.02%
2016-2017	90.00%
2017-2018	91.00%
2018-2019	91.00%
2019-2020	89.20%
2020-2021	85%
2021-2022	88%
2022-2023	
2023-2024	87.6%

1.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Since the benchmark is still listed as 80% (rather than the proposed 90%), we have met the benchmark. We saw a small decrease in our SEI average. We feel that this is due to SEIs moving online. We are actually pleasantly surprised that the SEI average did not dip lower than 89%. We now propose that a new benchmark of 85% be set given that we will continue to administer SEIs online.

2020-2021:

The benchmark is met. DMS scored 85% which was significantly lower than our usual SEI result which hovers around 90%. Contributing factors include that this reflects only Spring 21 results and response rate was low. Spring 21 had the unique disadvantage of being the semester directly following our hurricane

semester. Students were still experiencing hardship and having great difficulty in classes due to lack of adequate preparation in the prerequisite class taught in the fall. This affected SEI scores. We expect that we will continue to face challenges of this nature, but are determined help students bridge the gap as they continue in their programs.

2021-2022:

The benchmark was met. Due to the voluntary nature of SEIs and the low response rates, we are satisfied that the benchmark has been met.

2022-2023:

2023-2024:

The benchmark has been met and results have remained steady. Due to the voluntary nature of SEIs and the low response rates, we are satisfied that the benchmark has been met. We are encouraging faculty to remind students to fill out evaluations to improve response rates.

2 Assessment and Benchmark

Benchmark: Graduating seniors in the Mathematical Sciences will rate the quality of their academic experience in the DMS at 3.00 or greater on a 4-point scale on the departmental exit survey.

Academic Year	Graduating seniors' quality of academic experience rating	
2013-2014	3.80/4	
2014-2015	3.80/4	
2015-2016	3.40/4	
2016-2017	3.30/4	
2017-2018	4.00/4	
2018-2019	3.78/4	
2019-2020	—	
2020-2021	4/4	
2021-2022	3.5/4	
2022-2023		
2023-2024	3.63/4	

2.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Data not available.

2020-2021:

There were four responses for the exit survey this year and each of these students rated their academic experience as a 4.

2021-2022:

The benchmark has been met. We are pleased that, considering the difficult circumstances of the past two years, our students still had a positive academic experience.

2022-2023:

2023-2024:

The benchmark has been met. We are pleased that we have met the benchmark considering we received a larger number of responses due to a total of eight graduates during the year. Faculty met to review the seminar course to ensure graduates are given the tools necessary to succeed after graduation.

3 Assessment and Benchmark

Benchmark: Prior to 2019-2020, the benchmark was ... At least 60% of College Algebra students participating in the Developmental Education/Co-requisite Delivery Pilot will achieve a passing grade in both MATH 110 and MATH 113.

Academic Year	Students who passed 110 and 113		
	#	%	
2013-2014	—	44%	
2014-2015	89/182	49%	
2015-2016	102/187	55%	
2016-2017	76/123	62%	
2018-2019	117/183	64%	
2019-2020	113/192	59%	
2020-2021	104/186	56%	
2021-2022	113/183	62%	
2022-2023			
2023-2024	326/694	47%	

3.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020; 2020-2021:

We met the original benchmark of 50%, but did not meet the proposed benchmark of 60% in 19-20 and 20-21. Students in these courses were taught online for half of Spring 20 and the full Fall 20/Spring 21 year in the midst of tremendous hardship. Faculty look forward to working with students face to face in Fall 2022, particularly for Math110/113.

2021-2022:

The benchmark has been met. Most classes were around a size of 30. In order to keep meeting the benchmark, we will try to keep the size of these classes smaller.

2022-2023:

2023-2024:

The benchmark was not met. The number of students enrolled in Math 110/113 increased due to changes in the prerequisite for Math 113. There was a decrease in the pass rate of Math 110/113. We are seeing a large number of students coming in with lower Math ACT scores showing a lack of preparedness of incoming students. We will be looking at the curriculum in order to closely look at skills that need to be focused on in Math 110/113.

Performance Objective 6 Demonstrate commitment to research and creative and scholarly activity.

1 Assessment and Benchmark

Benchmark: At least 25% of faculty members who hold doctorate degrees will be involved in publication or presentations.

1.1 Data

Academic Year	Faculty members that are involved in publication or presentations		
	#	%	
2013-2014	_	30%	

2014-2015	_	57%
2015-2016	—	43%
2016-2017	_	33%
2017-2018	_	43%
2018-2019	4/7	57%
2019-2020	3/7	43%
2020-2021	4/7	57%
2021-2022	3/7	43%
2022-2023		
2023-2024	5 /8	63%

1.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

Benchmark is met. Of the three listed, one made submissions; one was a publication and one was a presentation.

2020-2021:

Benchmark is met. There was a 5th publication by an instructor not holding a doctorate this year. We are pleased with these results, especially considering the circumstances of this year.

2021-2022:

Benchmark is met. Even with events of the past 2 years, we are pleased with the number of faculty still publishing and presenting.

2022-2023:

2023-2024:

The benchmark has been met. We added a new tenure-track faculty member who also had a publication. Reviewing the data, we have decided to raise the benchmark going forward to "At least 40% of faculty members who hold doctorate degrees will be involved in publication or presentations.".

2 Assessment and Benchmark

Benchmark: At least 40% of faculty members will be involved in individual or directed research.

2.1 Data

Academic Year	Faculty members that are involved in individual or directed research	
	#	%
2013-2014	—	38%
2014-2015	_	44%
2015-2016	_	44%
2016-2017	—	40%
2017-2018	_	50%
2018-2019	6/16	38%
2019-2020	7/16	44%
2020-2021	5/15	33%
2021-2022	7/15	47%
2022-2023		
2023-2024	10/18	56%

2.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

The benchmark of 40% was met. We were successful in involving more faculty in undergraduate directed research for capstone projects. A new effort is underway to have students participate in interdisciplinary projects. Dr. Merchant (Chemistry) will jointly work with Dr. Ornas to mentor a student project this fall.

2020-2021:

Benchmark of 40% was not met. Fewer students completed capstone projects this year; therefore, there were fewer mentors. Barring unforseen events, there should be greater freedom next year for students to interact with faculty and generate ideas for research projects.

2021-2022:

Benchmark was met. Several faculty members mentored students on undergraduate and graduate projects. The independent study course has become popular among our students.

2022-2023:

2023-2024:

Benchmark was met. Most individual and directed research was performed by tenure-track faculty. We will encourage more instructors to perform directed study as timer permits.

3 Assessment and Benchmark

Benchmark: At least 40% of faculty will attend at least one professional meeting.

Prior to 2016-2017, the benchmark was 30% of faculty.

3.1 Data

Academic Year	Faculty members that attended at least one professional meeting	
	#	%
2013-2014	_	63%
2014-2015	—	56%
2015-2016	_	56%
2016-2017	—	53%
2017-2018	—	86%
2018-2019	9/16	56%
2019-2020	14/16	88%
2020-2021	6/15	40%
2021-2022	8/15	53%
2022-2023		
2023-2024	9 /18	50%

3.1.1 Analysis of Data and Plan for Continuous Improvement

2019-2020:

We reached an all time high of 88% this year. This year the MAA section meeting was held in New Orleans, Louisiana and most of the faculty attended. This was just prior to the Covid outbreak in that area and we are happy to report that NONE of the faculty or students who attended contracted Covid as a result. Praise God!!

2020-2021:

Benchmark met. Although in-person meetings were not an option this year, some faculty did take advantage of the opportunity to attend virtual professional meetings.

2021-2022:

Benchmark was met. Most faculty included in the total attended and in person conference while a few still attended virtually.

2022-2023:

2023-2024:

Benchmark was met. This year the Regional MAA conference was in New Orleans. This allowed a large number of faculty to attend. Several faculty members also had conference travel funded by endowed professorships. The department will continue to support faculty members conference travel through available endowed professorships.