

Radiologic and Medical Lab. Science

Department of Radiologic and Medical Laboratory Science

Introduction

Unit Mission:

The purpose of the Department of Radiologic and Medical Laboratory Science is to provide high school graduates of southwest Louisiana and two-year college transfer students with the knowledge and skills required for employment in their allied health disciplines.

Institutional Mission Reference:

The Department of Radiologic and Medical Laboratory Science supports the institutional mission of offering baccalaureate curricula distinguished by academic excellence by offering two quality baccalaureate allied health degrees (Medical Laboratory Science and Radiologic Sciences).

Description of services provided to students:

Courses are taught, academic advising is provided, and undergraduate degrees are awarded in medical laboratory science and radiologic sciences. Letters of recommendation are provided either by individual faculty or by committee as requested. Official student organizations are sponsored in each of the degree areas.

Performance Objective 1 Ensure viable levels of student enrollment, retention, and completion appropriate to institutional resources and goals.

1 Assessment and Benchmark

Benchmark: Track student enrollments at each level. Maintain or exceed 2015-2016 levels of declared majors for the BS in Medical Laboratory Science (MLSC) program:

- CLSC - BS Clinical Laboratory Science (inactive effective 201440)
- MLSC - BS Medical Laboratory Science (effective 201440)

1.1 Data

2013-2014:

Major	Conc.	Summer					Fall					Spring				
		F	S	J	Sr	T	F	S	J	Sr	T	F	S	J	Sr	T
CLSC	(blank)	3	1	7	11	22	20	10	5	35	70	12	10	5	36	63

2014-2015:

Major	Conc.	Summer					Fall					Spring				
		F	S	J	Sr	T	F	S	J	Sr	T	F	S	J	Sr	T
MLSC	(blank)	0	4	1	16	21	7	9	11	27	54	9	6	15	26	56

2015-2016:

Major	Conc.	Summer					Fall					Spring				
		F	S	J	Sr	T	F	S	J	Sr	T	F	S	J	Sr	T
MLSC	(blank)	4	1	3	20	28	16	10	7	28	61	15	6	10	28	59

2016-2017:

Major	Conc.	Summer					Fall					Spring				
		F	S	J	Sr	T	F	S	J	Sr	T	F	S	J	Sr	T
MLSC	(blank)	0	2	3	11	16	10	6	13	24	53	6	2	5	23	36

2017-2018:

Major	Conc.	Summer					Fall					Spring				
		F	S	J	Sr	T	F	S	J	Sr	T	F	S	J	Sr	T
MLSC	(blank)	1	4	2	15	22	6	9	9	20	44	0	15	11	27	53

1.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

MLSC enrollment trends are directly affected by the limited number of clinical training sites. Enrollment numbers are not expected to increase based upon ongoing discussions with local lab directors.

2017-2018:

MLSC program director and faculty are attending career fairs both on and off campus in order to make the program more visible to the general public. We are also continuing to work on expanding clinical training sites with lab directors in an effort to increase clinical capacity; however, no expansion is expected.

2 Assessment and Benchmark

Benchmark: The BS in MLSC program will strive to maintain at least 12 graduates per academic year.

2.1 Data

Academic Year	# of graduates
2011-2012	19

2012-2013	15
2013-2014	11
2014-2015	13
2015-2016	19
2016-2017	11
2017-2018	13

2.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

The number of MLSC graduates continues to be limited by the number of local training sites for the senior year internship. Although additional training sites were acquired in recent years, traveling to clinical sites in Beaumont, TX, and Lafayette, LA, is not a viable option for some students.

2017-2018:

The numbers of MLSC graduates continues to increase and decrease around the benchmark of 12 graduates per year and is not expected to change with the current number of clinical affiliates associated with the program.

3 Assessment and Benchmark

Benchmark: Track student enrollments at each level. Maintain or exceed 2014-2015 levels of declared majors for the BS in Radiologic Sciences (RADS) program.

3.1 Data

2013-2014:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
RADS	(blank)	11	14	22	28	75	0	64	42	40	37	183	0	46	38	37	48	169	20

2014-2015:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
RADS	(blank)	5	8	16	30	59	1	72	33	21	39	165	1	50	34	30	43	157	21

2015-2016:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
RADS	(blank)	6	7	13	30	56	0	72	38	31	37	178	0	55	31	30	44	160	19

2016-2017:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
RADS	(blank)	7	12	15	22	56	0	70	32	31	29	162	0	43	43	20	39	145	15

2017-2018:

Major	Conc.	Summer						Fall						Spring					
		F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP	F	S	J	Sr	T	CMP
RADS	(blank)	3	15	18	26	62	0	56	36	32	32	156	0	35	43	32	40	150	18

3.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

RADS enrollment is down 46 students from the '14-'15 year, and down 35 students from the '15-'16 year, indicating a

gradual downward trend for enrollment.

2017-2018:

RADS program director and faculty attended career fairs both on and off campus in order to make the program more visible to the general public. The number of students enrolled is up 16 students from the 2016-2017 year; however, enrollments still down 30 students from the 2014-2015 year. We will continue to work on increasing recruitment efforts to increase enrollment by at least 1- 5 students per year.

4 Assessment and Benchmark

Benchmark: 70% of students accepting and enrolling in the program will complete the BS in Radiologic Sciences program.

Assessment tool: Program completion report (comprised of the following):

- Admissions committee report (acceptance vs. graduation);
- Graduate list corresponding two years later; and,
- Student folders.

4.1 Data

Year	Program completion rate for graduating cohort of students
2010	10.00%
2011	80.00%
2012	60.00%
2013	76.00%
2014	77.00%
2015	81.00%
2016	80.75%
2017	62.50%
2018	75.00%

4.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

During the previous five years this benchmark was met, after having five years of not meeting the benchmark, and lowering the benchmark in 2011; the benchmark was lowered to 70% from 75%.

We will continue to trend, as five of the students from this cohort changed their major because of a lack of interest in health care. It was decided that no policies needed to be changed at this time.

2017-2018:

This is the first of a five-year trending cycle, as was determined in 2017 when the benchmark was not met for the first time in five years. The decision was made in 2017 to trend in five years.

5 Assessment and Benchmark

Benchmark: Maintain or exceed 2013-2014 levels of retention.

5.1 Data

Fall 2013-Fall 2014:

Major	# of students retained	Retention rate
CLSC	36	62.07%
RADS	71	44.10%

Fall 2014-Fall 2015:

	# of students	

Major	retained	Retention rate
MLSC	28	63.64%
RADS	73	51.05%

Fall 2015-Fall 2016:

Major	# of students retained	Retention rate
MLSC	29	61.70%
RADS	72	45.28%

Fall 2016-Fall 2017:

Major	# of students retained	Retention rate
MLSC	19	40.43%
RADS	77	51.68%

5.1.1 Analysis of Data and Plan for Continuous Improvement

2017-2018:

Retention rates for both the MLSC and RADS program are continuously monitored. The RADS program has increased every year since 2013-2014. The current plan is to continue with the retention strategies in place, such as students enrolled in the professional curriculum are not administered tests on the same day except when following the final examination schedule established by the University. Analyzing the data demonstrates a decrease in the number of students enrolled in the MLS program. These decreases in the number students declaring MLS has a major over the past three years is alarming, but there is no clear answer for the reduced numbers. Therefore, we have increased recruiting efforts for the MLS program, by trying to make the general public more aware of this major by being more visible at career fairs and making all faculty (RADS and MLS) in the department aware MLS program needs to grow in numbers, by at least five during the next year.

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: MLSC faculty members are required to stay up-to-date with current developments in the field of laboratory medicine. Faculty members complete 12 hours of continuing education each year and maintain a current Louisiana State Board of Medical Examiner's (LSBME) license in Medical Laboratory Science.

1.1 Data

2016-2017:

Proof of current LSBME license and copies of continuing education hours are turned in to the department head each year with the Annual Performance Report. Data maintained by instructors and department head.

2017-2018:

Both MLSC faculty are up-to-date, hold a current LSBME license, and have completed a minimum of 12 hours of continuing education respective to their discipline during the year.

1.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

All continuing education hours and LSBME licenses are current and up to date. Each clinical instructor's documentation is maintained by his/her lab director and is regulated by CAP or JCAHO inspectors. (A LSBME license is required by law to work in a medical laboratory in the state of Louisiana).

2017-2018:

All MLS faculty continue to stay current in their discipline and hold the valid license required by law for the state of Louisiana. Departmental APR plan has been revised to give an incentive to go above the minimum number of

required continuing education hours to encourage faculty to increase the number of continuing education and professional development hours.

2 Assessment and Benchmark

Benchmark: MLS faculty meets at least once per year to review student progress, curricular offerings, professional contacts, and opportunities. Additional meetings are held, as indicated.

2.1 Data

2015-2016:

MLS faculty members met:

- December 9, 2015, 9:00 am
- April 21, 2016, 12:15 pm
- May 12, 2016, 9:30 am.

Topics included: Degree Works, national test scores, student performance, curriculum changes, Blood Bank Grant, Endowed Fellowship, move to Nursing and Health Professions, LACLS student trip, and graduation stoles. All campus faculty members were present. Meeting minutes are on file in the program director's office.

2017-2018:

The MLS faculty meet monthly during the academic year to discuss programmatic matters as well as departmental and college matters. Minutes of the meetings have been scribed and are maintained in the MLS program director's office.

Please see the attached minutes for examples of items discussed

[April 16 2018 MLS Minutes](#) [DOCX 17 KB 9/10/18]

[February 15 2018 MLS Minutes](#) [DOCX 18 KB 9/10/18]

[Minutes MLS Faculty Aug 2017](#) [DOCX 26 KB 9/10/18]

[Minutes MLS Faculty October 2017](#) [DOCX 15 KB 9/10/18]

[Minutes MLS Faculty September 2017](#) [DOCX 14 KB 9/10/18]

2.1.1 Analysis of Data and Plan for Continuous Improvement

2015-2016:

Discussions were held concerning the move to the College of Nursing and Health Professions. Plans were made for use of the Blood Bank Enhancement Grant and Endowed Fellowship. National test scores showed some improvement from the previous year, student performance will continue to be monitored closely in order to meet new NAACLS benchmarks.

2017-2018:

The program director for the MLS program and the department head for RMLS review the minutes, established the need for the continued development of a programmatic calendar, and are developing a plan for more effective clinical site visits by the program faculty.

3 Assessment and Benchmark

Benchmark: The MLS Advisory Committee meets annually to review program effectiveness, trending developments, and workforce demand.

General topics include, but are not limited to:

- Graduation rates
- Certification scores
- Employment/placement rates
- Curriculum improvements
- Clinical sites
- Accreditation standards

3.1 Data

2015-2016:

The MLS Advisory Committee met in May of 2016. Primary topics included national test scores, student performance, new NAACLS benchmarks, new Capstone Project, move to the College of Nursing, Blood Bank Grand, Endowed Fellowship.

Meeting minutes are on file in the program director's office.

2017-2018:

The MLS Advisory Committee met on June 8, 2017. The minutes of the meeting are included.

[2017 MLS Minutes Advisory Committee Meeting June 2017](#) [DOCX 21 KB 8/31/18]

3.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

Decisions were made to add a new capstone project. Students will take a pre-test (Midterm) and post-test (near Graduation). The exam will be computerized, created in Respondus, and proctored in a computer lab. Information was shared concerning the Radiological Sciences and Medical Laboratory Science move to the College of Nursing and Health Professions on June 1, 2016.

2017-2018:

The MLS Advisory Committee has been a very powerful tool for providing input for the MLS program. There currently appears to be some apathy from the clinical staff of the clinical affiliates about participating and attending an advisory committee meeting. This apathy has resulted in the committee not being as effective as in the past. Plans are to move the MLS advisory committee meeting to the fall semester in 2018 in an attempt to have more participation on the committee.

4 Assessment and Benchmark

Benchmark: RADS program faculty meet eight times during the academic year to review student progress, curricular offerings, and appropriate professional contacts and opportunities

4.1 Data

2016-2017:

The program faculty met on the following dates:

- 06/09/16
- 08/18/16
- 09/16/16
- 10/14/16
- 01/13/17
- 02/17/17
- 03/17/17

2017-2018:

The RADS program faculty met on the following dates:

- 6/8/18
- 8/17/18
- 9/15/18
- 10/27/18
- 11/8/18
- 1/11/18
- 1/23/18
- 3/16/18

[2017 6 - 8](#) [DOCX 21 KB 7/17/18]

[2017 9 15](#) [DOCX 28 KB 7/17/18]

[2018 3 16](#) [DOCX 25 KB 7/17/18]

4.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

All programmatic changes are reflected in the minutes or noted on agenda. Minutes and agenda are on file in the program director's office, Fransch Hall 226. The program currently has an administrative assistant, after not having one for two years; therefore, minutes are up-to-date.

2017-2018:

The RADS program continues to meet at a minimum of eight times a year to discuss programmatic issues as well as assessment plan benchmarks and to analyze data from the outcomes assessment plan for the program. The program director maintains all program meeting minutes. The meetings have proven to be an effective method for continuous quality improvement.

5 Assessment and Benchmark

Benchmark: The percentage of graduates who take the ARRT Radiography exam and become certified radiographers will meet or exceed the national passage rate for first time examinees.

Outcome: Radiologic Sciences Graduates will pass the national certification examination on the 1st attempt.

Assessment tool: Results of ARRT national certification examination - annual first time pass rates.

5.1 Data

Year	Certification exam national passage rate	Cohort certification exam passage rate
2013	NA	100%
2014	88.5%	95%
2015	88.4%	100%
2016	87.2%	100%
2017	89.3%	100%

[2017 National Comparison Report](#) [PDF 117 KB 7/18/18]

5.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

The program will continue to monitor the ARRT first time pass rates as this is JRCERT program effectiveness data that is required to be monitored.

2017-2018:

The program continues to achieve a 100% passage rate for first-time test takers on ARRT national certification examination. The ARRT national test continues to add new content material on the examination and the MSU graduates to continue to pass the examination on the first attempt. For the 2018 examination once again more new content items are being added to the examination making a little more stressful for graduates to pass on the first time. Will continue to monitor knowing new items are being added to the national certification examination.

6 Assessment and Benchmark

Benchmark: Regardless of the national percentage passage rate on the ARRT examination, the program passage rate should never drop below 75% over a five-year period.

Outcome: Radiologic Sciences Graduates will pass the national certification examination on the 1st attempt.

Assessment tool: Results of ARRT national certification examination – annual first time pass rates.

6.1 Data

2016-2017:

Five-year average (2012-2016) program passage rate of 96.67% for first time examinees.

2017-2018:

Five-year average (2013-2017) program passage rate is 98.94% for first time examinees.

6.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

No immediate action necessary, as this is a benchmark that was met and it is established by the national accrediting agency for Radiologic Sciences. We will continue to trend or monitor every year.

2017-2018:

This benchmark is part of the national accrediting agency, the Joint Review Committee on Education in Radiologic Technology (JRCERT) program effectiveness requirements. Therefore this item will continue to be monitored every year.

7 Assessment and Benchmark

Benchmark: Five-year average job placement rate will not be less than 75% of the graduates actively seeking employment within six months post-graduation.

Outcome: Radiologic Sciences graduates will be employed within six months post graduation.

Assessment tool: Graduate questionnaire and formal and informal discussions with students/graduates.

7.1 Data

Year	Graduates actively seeking and gaining employment within 6 months	
	#	%
2013	19	88%
2014	20	100%
2015	21	100%
2016	19	100%
2017	18	100%

7.1.1 Analysis of Data and Plan for Continuous Improvement

2016-2017:

No immediate action necessary as this is a benchmark that was met and it is established by the JRCERT. We will continue to trend or monitor.

2017-2018:

Will continue to monitor job placement as it is required by the programmatic accrediting agency, the JRCERT.

Performance Objective 3 Provide the surrounding medical community with nationally certified medical laboratory scientists.

1 Assessment and Benchmark

Benchmark: 80% of MLS graduates actively seeking employment will be employed within 2-6 months of graduating.

1.1 Data

Academic Year	% employed before graduating	% employed within 2 months of graduating	% employed within 6 months of graduating
2013-2014		100%	
2014-2015	63%	36%	
2015-2016	69%	31%	
2016-2017	100%		
2017-2018	67%	8%	25%

Data from Program Statistics and 2015-2016 Career Entry Survey.

1.1.1 Analysis of Data and Plan for Continuous Improvement

2015-2016:

Benchmark met. This statistic remains well above the national average, as the need for MLS graduates continues to grow in this area.

2017-2018:

Continue to meet benchmark regarding employment, as the program prepares graduates for the healthcare industry in

the area of medical laboratory scientists, with 100% of graduates gaining employment before six months post-graduation. Also, the Bureau of Labor Statistics (BLS) reports that employment of medical laboratory technologist is expected to grow by 13% between 2010-2020, therefore this trend is not expected to change.

2 Assessment and Benchmark

Benchmark: 80% of MLS graduates will seek employment within the state of Louisiana.

2.1 Data

Academic Year	% employed within the state of LA
2013-2014	78%
2014-2015	91%
2015-2016	85%*
2016-2017	91%
2017-2018	67%

*The remaining 15% of graduates gained employment in Beaumont, TX.

2.1.1 Analysis of Data and Plan for Continuous Improvement

2015-2016:

Benchmark met. This statistic accounts for the number of students seeking employment within the state of LA. Some students seek employment in nearby Texas cities.

2017-2018:

Benchmark not met. There were ample job opportunities for graduates to be employed within the state of Louisiana. However, only 67% accepted employment in the state, with 8% employed in Beaumont, TX, 17% employed in Houston, TX, and 8% seeking employment in FL. Will continue to trend for three to five years, and if graduates are still electing to look for employment outside the state a benchmark change will be in order.

3 Assessment and Benchmark

Benchmark: 80% of MLS graduates will seek employment within a medical laboratory.

3.1 Data

Academic Year	% employed within a medical laboratory
2013-2014	100%
2014-2015	100%
2015-2016	100%
2016-2017	100%
2017-2018	100%

Data from Program Statistics and 2015-2016 Career Entry Survey

3.1.1 Analysis of Data and Plan for Continuous Improvement

2015-2016:

Benchmark met. Although graduates are trained to work in medical laboratories, they may choose to work in other areas - such as industrial refineries, education, research labs, or crime labs.

2017-2018:

Graduates continue to work in the medical laboratories, even though in the past some graduates elect to work in the petro-chem industry and other types of labs. The program will continue to direct curricular efforts to medical industry as this is where the majority of recent graduates are electing to seek employment.

4 Assessment and Benchmark

Benchmark: 80% of MLS graduates will pass the American Society for Clinical Pathology Board of Certification (ASCP BOC) National Exam within 12 months of graduating.

4.1 Data

Academic Year	% passed ASCP BOC within 12 months
2013-2014	87%
2014-2015	91%
2015-2016	85%
2016-2017	94%
2017-2018	92%*

*Still in progress

4.1.1 Analysis of Data and Plan for Continuous Improvement

2015-2016:

Benchmark met. Two additional review exams will be added for the 2016-2017 academic year to assess student readiness for the ASCP BOC. Test scores will be reassessed next year.

2017-2018:

The MLS program faculty are in the efforts of trying to break a trend of past graduates who elect to take the examination for the first time as just a practice exam, rather than taking it seriously. This trend is also in the local MLS community, however, the MLS faculty are making great efforts in breaking this trend and will continue to work with students during the senior year in preparation for passing the examination on the first time and not waiting to take the exam at a later date after taking it once as a practice exam.