

# Medical Laboratory Sciences Weber State University Five-Year Program Review

## **Reviewers:**

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## STANDARD A - MISSION STATEMENT

Evaluate how effectively the mission statement articulates the following elements.

	Element	Rating	Comments and/or Recommendations for Change
a.	The expected outcomes of the program need to be clearly defined.	S	The WSU Medical Laboratory Science (MLS) Program has a clearly defined mission statement and well articulated program outcomes.
b.	A process by which these accomplishments are determined and periodically assessed based upon the constituencies served by the program.		See self-study document
c.	A clearly defined educational program, including a curriculum that enables graduates to achieve the mission.	S	The MLS program offers a clinical laboratory assistant (CLA) certificate, an associates of applied science (AAS) degree, and a bachelors of science (BS) degree containing two tracts (I and II). Each of these certificates and degrees has a clearly defined curriculum pattern for students to follow.
d.	The program mission statement must be appropriate to and support the mission statements of both the college housing the program and the university.	S	The MLS program supports all aspects of the university and college mission statements.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

# STANDARD B – CURRICULUM

Evaluate the effectiveness of the curriculum based on the following elements.

	Element	Rating	Comments and/or Recommendations for Change
a.	The program should demonstrate that the curriculum for each degree and for any general education/service courses offered by the program is the result of thoughtful curriculum planning and review processes.		The MLS program offers a clinical laboratory assistant (CLA) certificate, an associates of applied science (AAS) degree, and a bachelors of science (BS) degree containing two tracts (I and II). Each of these certificates and degrees has a clearly defined curriculm pattern for students to follow.
b	The curriculum should be consistent with the program's mission.	S	See self-study document
c.	The program should be able to demonstrate that there is an appropriate allocation of resources for curriculum delivery that is consistent with the mission of the program, the number of graduates, and the number of major/minor and general education SCHs produced.	S	See self-study document
d	Courses to support the major/minor/general education/service programs are offered on a regular basis to ensure students are able to complete graduation requirements in a timely manner.	S	The MLS program strictly follows their curriculum pattern for all of the department's course offerings.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

## STANDARD C - STUDENT LEARNING OUTCOMES AND ASSESSMENT

Evaluate the extent to which the program has clearly defined outcomes.

		Element	Rating	Comments and/or Recommendations for Change
		Learning outcomes should describe the expected knowledge, skills, and behaviors that students will have achieved at the time of graduation (overarching program goals).	S	Each course in the MLS program(s) has specific learning objectives.  These objectives are the basis for student assignments, laboratory activities, exams, and clinical experiences.
Ī	- 1	Learning outcomes must support the goals of the program and the constituencies served.	S	See above
		Learning outcomes should be directly linked to the program's curriculum. An explicit curriculum grid illustrating this alignment, as well as the depth to which each course addresses each outcome, is publicly available.	S	The MLS program has a clearly outlined curriculum.  Available online at <a href="http://weber.edu">http://weber.edu</a> .

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

Evaluate the effectiveness of the assessment process based on the following elements.

	Element	Rating	Comments and/or Recommendations for Change
a.	The program has a developed set of measures for assessment that are clearly defined and appropriately applied.	S	See self-study document
b.	Each learning outcome is assessed with <i>at least</i> one direct measure of learning; thresholds for acceptable performance are defined (for each measure) and published.	S	See self-study document
c.	Demonstrate that evidence of learning is being gathered on a regular basis across the program, that the evidence is aggregated, and reported at the aggregate.	S	See self-study document
d.	Demonstrate that these measures are being used in a systematic manner on a regular basis and are reviewed against department-established thresholds, i.e., are the program faculty meeting regularly to discuss the evidence?	S	See self-study document
e.	Demonstrate that the assessment of the program mission and student outcomes is being used to improve and further develop the program. Is the evidence acted upon? Is it clear what drives program change?	S	See self-study document

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

# STANDARD D - ACADEMIC ADVISING

Evaluate the following related to the advising process.

	Element	Rating	Comments and/or Recommendations for Change
a	The program has a clearly defined strategy for advising their major/minor, or BIS students that is continually assessed for its effectiveness.	S	All full-time MLS faculty allocate time to advise students.
b	Students receive appropriate assistance in planning their individual programs of study.		The MLS program consistently advises prospective and current MLS student.
c	Students receive needed assistance in making career decisions and in seeking placement, whether in employment or graduate school.		The MLS department maintains a number of community contacts to provide students with employment opportunities.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

# STANDARD E – FACULTY

Evaluate the extent to which the faculty demonstrates the following characteristics.

	Element	Rating	Comments and/or Recommendations for Change
a.	Faculty size, composition, qualifications, and professional development activities must result from a planning process which is consistent with the program's mission.	C	The MLS program has a qualified group of faculty to deliver a very diverse curriculum.
b.	The program maintains a core of full-time faculty sufficient to provide stability and ongoing quality improvement for the degree programs offered.	S	See self-study document
c.	Contract/adjunct faculty who provide instruction to students (day/evening, off/on campus) are academically and professionally qualified.		Professional file information for contract and adjunct faculty is available in the MLS office.
d.	The program should demonstrate efforts to achieve demographic diversity in its faculty.		The MLS program consists of faculty from diverse backgrounds and areas of laboratory science.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

	Element	Rating	Comments and/or Recommendations for Change
e	The program should have appropriate procedures for the orientation of new contract/adjunct faculty.	S	New faculty are encouraged to participate in the university's new faculty orientation.
f.	Processes are in place to determine appropriate teaching assignments and service workloads, to guide and mentor contract/adjunct faculty, and to provide adequate support for activities which implement the program's mission.	S	Adjunct faculty are mentored by full-time faculty in their assigned discipline.
g	<ul> <li>Teaching is systematically monitored to assess its effectiveness, and revised periodically to reflect new objectives and to incorporate improvements based on appropriate assessment methods. For both contract and adjunct faculty, there is evidence of:</li> <li>Effective creation and delivery of instruction.</li> <li>Ongoing evaluation and improvement of instruction.</li> <li>Innovation in instructional processes.</li> </ul>	S	The MLS program regularly evaluates the quality of the teaching and curriculum of their program. It was determined that they needed to add instructional content in the area of clinical immunology. This was based on national certification exam scores in the discipline. Actions are taking place to increase students' knowledge in this area.
h	A formal, periodic review process exists for all faculty, and the results of the reviews are available.	S	Faculty and support staff are reviewed by the department chair on an annual basis.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

## STANDARD F - PROGRAM SUPPORT

Evaluate the nature and adequacy of the program support based on the following elements.

	Element	Rating	Comments and/or Recommendations for Change
a	The number and capabilities of the support staff are adequate to meet the mission and objectives of the program.	3	The MLS program has recently added a number of personnel to meet their mission. New online program coordinators and and a clinical practicum coordinator will take a great load off other departmental support staff and faculty.
b	Administrative support is present in assisting in the selection and development of support staff.		The MLS program receives a great deal of support from the College of Health Professions Dean's office.
C	The facilities, equipment, and library support needs are adequate to meet the mission and goals of the program.	S	The MLS department continuously seeks funding to update their facilities and equipment. The department recently remodeled their laboratories to make laboratory space more efficient and allow more students to participate. New equipment acquisitions and purchases are also a great benefit to students.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

## STANDARD G - RELATIONSHIPS WITH EXTERNAL COMMUNITIES

Evaluate the relationships according to the following elements.

	Element	Rating	Comments and/or Recommendations for Change
a.	If there are formal relationships between the program and external communities of interest they should be clearly defined.	S	The MLS department utilizes a number of health care facilities as academic enrichment sites. Students spend a number of hours reinforcing their academic knowledge in a clinical setting. (see self-study document)
b.	Such relationships should have a clearly defined role and evidence of their contribution to the program (curriculum, equipment, faculty, budget, etc.) should be demonstrated.	S	The MLS has affiliation agreements with each clinical site it utilizes for student clinical activities.
c.	If the program has an external advisory committee, it should meet regularly and minutes of the meetings be made available.	С	This is not a major area of concern. The MLS program met with their external advisory committee in 2012. With large-scale changes in the department faculty in 2012-2013, a follow-up meeting wasn't held. The MLS program is planning an advisory committee meeting as soon as time allows.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

# STANDARD H - PROGRAM SUMMARY

Evaluate the effectiveness of the program to implement recommendations and make changes based on previous reviews.

Element	Rating	Comments and/or Recommendations for Change
The program must show how it has implemented any recommendations from the previous review and what effect these changes had on the program. If any recommendations were not implemented the program should explain why they were not put into place.	X	This is the first internal program review for the MLS Department. Previous reviews were completed by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The MLS Program will continued to participate in an external evaluation/review process on what is typically a 7-year cycle.

Rating: S = Strength, C = Concern, W = Weakness, X = did not evaluate (please indicate why)

## **Summary of Dean's comments:**

The MLS program is highly effective; it's faculty are outstanding, and its graduates are well prepared. Funding from course fees and external sources provides good support for supplies and instrumentation needs. The MLS program is currently operating at capacity. In addition to their teaching loads, faculty assume significant responsibility in committee and advising roles. Since the program is currently providing the numbers of students that are needed in their service area, there is no immediate need to grow the programs. Future growth in the number of graduates in the programs offered by the MLS department will require greater ongoing support from the administration to provide for faculty and facility needs. There is a growing need related to out-of-area students that are served by the online MLS AAS and BS Programs and the continuing education offerings provided by the department's online courses and consideration should be given to increasing the staff that support those courses.

## **Summary of program directors' comments:**

The MLS program directors are very proud of their program, and they are realizing quality outcomes from their exhaustive efforts. They have assembled a diverse faculty that are very skilled in their medical laboratory disciplines. Ongoing challenges exist in the area of faculty workload. The program directors understand that their new faculty need time to develop their tenure portfolio. Newly hired staff personnel are providing support for the new faculty by diversifying responsibilities.

The MLS faculty demonstrate a great deal of collegiality. The faculty as a whole feel a strong motivation to steer the program to meet their extablished mission.

Student evaluation results are important to the program. Every departmental course taught in a given semester is evaluated. The program discusses comments from students and determines if changes can/should be made to improve policies. The review committee did question the current departmental policy of making course evaluations available to all departmental personnel. This could have a negative effect on department morale.

#### **Summary of department faculty comments:**

Department faculty stated that they have a high degree of job satisfaction. They are all very pleased with their positions in the program and college. At this time, they feel like their teaching loads are commensurate with their contract expectations.

Faculty expressed the willingness to evaluate any redundency in the curriculum. Students felt that there were similar concepts in multiple MLS courses. The review committee is encouraging this review as well.

The faculty are very happy with the changes to the physical facilities in the department. Changes in the hematology lab has increased the effectiveness of the space available.

#### **Summary of MLS students' comments:**

Students were generally very pleased with the programs offered by the MLS Department. They were uniformly complementary of the faculty and staff. They value the collegiality and accessibility that they feel with the program. This collegiality supports the generally outstanding program and professional advising students feel that they receive from departmental faculty. Interaction between the program advisor and the College of Science pre-professional advisor is generally improving advising for those in the pre-professional track. The program's hands-on curriculum is highly valued by students. The laboratory segment of each course correlates well with and complements the lecture segment, supporting excellent student learning. Students that are early in their schooling enjoy the interaction with students that are further along in the program. Students pursuing the MLS pre-professional option feel that the preparation that they receive in MLS is superior to any other available option for students intending to go into medical fields. However, the demanding course work and high grading standards--a minimum "B" grade is required in all MLS coursework and individual exams--make it challenging when health and family concerns impact a student's performance on an exam. Students also expressed concern that 10-20% of exam items in specific courses were not related to the course objectives. Material overlap and redundancy between course should be eliminated, creating more flexibility in the curriculum for other needed material.

### **Summary of clinical faculty comments:**

The clinical site representatives are very positive about the MLS program and feel that the students come to them well prepared. They take their student responsibilities seriously and want to do a good job. Their challenges include being organized with their time of getting the patient testing and results reporting done while they also have students to train. The pre-medical students present challenges in training because they do not take it seriously, so it can be hard to motivate them. One issue came up with the evaluation of students in the clinical rotation. Currently it is pass/fail and there are no points assigned each area in the evaluation. The review committee recommends assigning points for each area of evaluation, so that that the evaluation is less subjective. The committee suggested that a letter grade is better than pass/fail, because it puts emphasis on the importance of the clinical rotation experience. Premed majors may be more dedicated and serious about the rotations if they end with letter grades. Another suggestion is to have each clinical site representative prepare a packet for each student who comes to their facility, outlining the schedule, rotation objectives, policies and proceedures, expectations, etc. The clinical site faculty said they could do this and thought it would have positive outcomes.

#### **Summary of adjuct faculty comments:**

This small group of instructors is extremely dedicated to their on-line students. One adjunct faculty member also teaches the students on campus in hematology/hemostasis. They feel supported by the MLS department, and there does not appear to be any communication problems with faculty who created the on-line courses and those who now teach the content. It was suggested that this group be included in overall planning for the department – curriculum, policies, etc. – as they may have a different perspective than regular faculty and can enhance the discussions.

#### **Summary of support staff comments:**

This is an amazing team of dedicated staff that includes those who answer phones, meet student and faculty needs, keep the laboratory supplied and running smoothly, and are often the first contact between a perspective student and the MLS program. Because of the online programs, three people answer phones all day, and they said it would certainly help them to have another individual assisting with this. Their office space is limited now, but there is a plan to soon change their physical circumstances. They all agreed that this would help them immensely. The support staff member for the student laboratory could also use a TA or other support to assist with all the specimen preparation, set-up of laboratory equipment, clean-up of laboratory, and teaching in the laboratory. It was also noted that the university training for accounting, in particular, needs improving. With relevant and on-target continuing education, they can better do their jobs (and they want to improve). Also, it was suggested that student representatives for the MLS program have the assignment of cleaning the refrigerator on a regular basis (they can do it or assign other students to help with this). It should not always fall on the administrative assistant or secretaries to clean the fridge.