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Program Review
Form for External Review Committee

Instructional

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Form ID

64

Division

Allied Health

Department

Medical Laboratory Technology

Program

Medical Laboratory Technology

Review Year

2007-2008

Member Names

Division Overview

Program/Department Purpose

State the purpose of the program/department.
How is this purpose within the mission of
Amarillo College?

Program Purpose Statement

The Medical Laboratory Technology Program at Amarillo College is dedicated to providing students with the academic knowledge, the technical training, and the professional skills to enable them to serve as vital members of the healthcare team,

within the framework of the Medical Laboratory Technician, in order to enhance the quality of life for individuals in and beyond our service area.

This purpose statement addresses teaching, learning, and public service, as required by SACS. Teaching and learning are addressed in the first portion of the statement:

" The Medical Laboratory Technology Program at Amarillo College is dedicated to providing students with the academic knowledge, the technical training, and the professional skills..."

Providing community service is addressed in the last portion of the purpose statement:

"... to enable them to serve as vital members of the healthcare team, within the framework of the Medical Laboratory Technician, in order to enhance the quality of life for individuals in and beyond our service area."

Enhancing the quality of life is certainly a service to the community.

Relationship of Program Purpose to Amarillo College Mission

The mission of Amarillo College is as follows: "Amarillo College, a public community college, is dedicated to providing educational, cultural and community services and resources to enhance the quality of life for the diverse population in the service area." The Medical Laboratory Technology Program provides vital members of the healthcare team to medical facilities in West Texas and Eastern New Mexico. The program at Amarillo College is, in fact, the only Associate Degree Medical Laboratory Program in West Texas, with the exception of El Paso Community College. Medical Laboratory professionals are essential for providing the information necessary for medical diagnosis and disease management. As a result, they are also necessary to enhance the quality of life, from a medical standpoint, to all individuals in the facilities in which they are employed within and beyond our immediate service area.

**Does the answer include a purpose statement for the program/department?
Does the answer indicate how this program/department is within the mission of Amarillo College?**

Acceptable

When was the last time the program's/department's purpose statement was reviewed/revised by faculty and staff in the program/department?

The Program's purpose statement is reviewed annually by the Director and faculty of the program. It was last reviewed in September of 2007.

Does the answer indicate the last time the program's/department's purpose statement was reviewed/revised by faculty and staff in the program/department? Does the answer indicate how this program/department is within the mission of Amarillo College? within the mission of Amarillo College?

Acceptable

If the program/department offers continuing education credits, how are these courses consistent with the mission of Amarillo College?

This program does not offer continuing education credits.

Does the program/department offer continuing education credits? Does the answer indicate how these courses are consistent with the mission of Amarillo College?

Acceptable

Does the program have admissions policies?

yes

Where are the policies published?

The current admissions policies were revised for the Fall of 2007. These policies are published in the program information/application packets, in the MLT Student Handbook (on file with the MLT department), and on both MLT program websites.

Please click on the following links to view the program's two websites and information/application packets, which discuss the admissions process.

[MLT Program Website](#)

[MLT Program Information Packet](#)

[MLT Online Program Website](#)

[MLT Online Information Packet](#)

Are all the locations where the policies are published included in the answer?

Acceptable

Explain how these policies are consistent with the mission of Amarillo College.

To enhance the quality of life within the service area, the Medical Laboratory Technology program must train competent and effective laboratory professionals who can provide the information necessary, via laboratory procedures and test results, that are necessary for the delivery of quality health care to patients. The department's goal is to select the most qualified applicants for the 20 positions in our on-campus program and 10 positions in our online program, that are available each year. Admission policies are non-discriminatory and they are applied consistently to all applicants.

Does the explanation of how the policies are consistent with the mission of Amarillo College appear to be accurate?

Acceptable

Is the program/department accredited?

yes

Which agencies or organizations accredit the department/program?

National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

Are the complete names of the agencies or organizations which accredit the department/program cited?

Acceptable

How many years are in the accreditation cycle?

7

How many years are in the accreditation cycle?

Acceptable

When were the accreditations affirmed or granted?

October 31, 2007

When were the accreditations affirmed or granted?

Acceptable

What is the current status of the accreditation?

Accredited

Are the current statuses of the accreditations identified (e.g. accredited, in process of renewal, in process of candidacy, other)?

Acceptable

If not required, is the program eligible for accreditation?

Acceptable

Has this program/department sought accreditation even though it is not required (e.g. yes; If no, explain)?

Acceptable

Is this program/discipline required to receive approval from an external agency or organization (other than the Texas Higher Education Coordinating Board) in order to offer courses?

yes

Identify the external approver(s) for the department/program.

NAACLS does not approve each individual course offered in the curriculum, however as part of the accrediting process they review the objectives, lecture and laboratory content, assessment techniques, and external learning experiences in all medical facilities to ensure that they comply with the essential standards set forth by NAACLS. In addition, graduates from programs that are not NAACLS accredited are prohibited from taking certification examinations from many agencies. As a result, they are generally unable to gain employment because they do not meet the minimum requirements set forth by the agencies that govern the minimum employment standards for all healthcare facilities. Therefore, in order for the program to meet the minimum student employment rates, the program must be NAACLS accredited.

[Please click here to view the 2007 NAACLS Site Visit Report](#)

IF the program/discipline is required to receive approval from an external agency or organization (other than the Texas Higher Education Coordinating Board) in order to offer courses, was (were) the external approver(s) for the department/program

identified?

Acceptable

What approval schedule is required by the external approver(s)?

The approval cycle is generally every seven years. A comprehensive self-study is prepared, submitted, and reviewed by a representative of NAACLS. Approximately four months after the self-study has been submitted, a team of representatives from NAACLS arrives to verify all information in the self-study as well as to ensure that any deficiencies noted by the self-study reviewer have been corrected.

Approximately six months later, the NAACLS Board of Directors meets and determines whether or not a program is deserving of initial/continuing accreditation, and also to decide the duration of the accreditation period.

Was the approval schedule required by the external approver(s) identified?

Acceptable

When did the program/department last receive approval?

The last NAACLS self-study was submitted in August 2006 and the site visit was in February 2007. The program was approved for the maximum length of accreditation in October 2007. The next accreditation cycle will begin in October 2013.

When did the program/department last receive approval?

Acceptable

Is the reason why the program/department is required to receive this approval clear?

Acceptable

Improvements

Identify at least one example of an improvement/revision which resulted from the annual PET forms for the last five years

In the 2003-2004 PET form, it was noted that many of the program's part-time practicum/clinical sites were not represented on the Medical Laboratory Technology Advisory Board. A change was made in the committee membership to include a representative from each full- and part-time practicum/clinical site. The program officials have found this change to be especially beneficial as many of these new members have made valuable suggestions which has resulted in an overall increase in the quality of the program. Please click on the following links to view the [2003-2004 PET form](#) and the list of [MLT Advisory Board members](#).

In the 2004-2005 PET form, it was noted that the student scores on the comprehensive capstone exam were significantly lower in 2004, as compared to 2003. New review materials were purchased and several new/current registry review guides were published and/or updated in 2004-2005. The faculty totally revamped the capstone course, after consulting with MLT program directors from other parts of the country, they created more intense and focused review sessions and assignments, and stressed the necessity for utilizing effective techniques when reviewing for the capstone exams. As a result, the class average has steadily increased over the past three years.

After reviewing at least one example of improvements/revisions that resulted from the annual PET forms for the last five years, determine the extent that this program/department has used the PET forms to make improvements/revisions. Does this meet the minimum expectations for using PET forms to make improvements/revisions to the program/department?

Acceptable

Identify at least one example of improvements/revisions which resulted from the last Program Review.

(Please click on the following link to view the response to the program's 2002 program review: [Institutional Program Review-2002](#))

In the last Program review, it was noted that there was inconsistency in the stated program goals as evidenced by differing goals on the PET form, the departmental overview, and the student manual.

The mission of the program and the program goals have been revised and updated significantly to better reflect the mission of Amarillo College as well as the goals stated by NAACLS. The PET forms, program websites, student handbooks, and application/information packets have also revised to provide consistency across the board.

Secondly, a lack of instructional equipment and failure to use unique instructional methodologies was noted with a recommendation to make better use of existing computer resources and instructional methodologies.

In the Fall of 2002, the MLT program received Carl Perkins funding for a classroom/laboratory laptop computer and projector. The faculty received training in the use of Powerpoint and they developed numerous presentations for instructional delivery.

In the Fall of 2004, the program faculty began to offer hybrid courses, where students were able to take their quizzes and exams online. The students were also able to access course handouts and grades, view course calendars, and communicate with their classmates and instructors via WebCT email.

In 2006-2007, the MLT program faculty began working on development of courses for online lecture delivery, as part of the collaborative Title V Grant with South Plains College. The faculty also received specialized software to incorporate interactive Powerpoint presentations online, with audio provided by instructors, in order to satisfy the needs of auditory, visual, and tactile learners. The face-to-face students were also able to benefit by this method of course delivery, as interactive learning activities were linked to all of the hybridized courses.

In addition, the faculty have developed other unique instructional methods. For example, interactive role play with props are being used to increase student empathy and understanding of individuals who have various disabilities.

Collaborative, student-centered learning techniques are currently being successfully used in Medical Microbiology, and accelerated learning techniques, via hands-on activities and in collaboration with the faculty of the Math department, are being developed to increase student comprehension of difficult mathematical and statistical concepts. Courtroom simulations are used to allow the students to explore the complexities of the medical judicial system, and various educational games (ie: Trivial Pursuit, Jeopardy Challenge, and Millionaire) are being used for exam preparation.

After reviewing at least one example of improvements/revisions that resulted from the last Program Review, determine the extent to which this program/department values the Program Review process to make improvements/revisions.

Commendation

Excellent adjustments.

Identify all the delivery approaches used for courses within this program/department: (Select all that apply.)

traditional classroom, web,

After reviewing all delivery approaches for courses within this program/department, is this program positioned for growth? Does

the committee have recommendations for delivery options which will provide additional growth?

After reviewing at least one example of improvements/revisions that is a response to accomplish a strategy or tactical objective within the Strategic Plan 2010-2015, determine the extent to which this program/department has contributed to the implementation success of the Strategic Plan? Does this department/program understand how it relates to the institution's future based on the Strategic Plan?

Acceptable

Identify at least one example of an improvement/revision that is a response to accomplish a strategy or tactical objective within the Strategic Plan 2010-2015.

Strategy 1.1 Adapt degree and workforce programs (academic and continuing education) to take advantage of web technology.

Strategy 1.2 Align workforce development training with projected local demands

Tactical Objective 6.3.2 Identify new grant opportunities and increase external funding for strategic plan initiatives.

The creation of the "super-hybrid" MLT Online program supports each of the above

strategies as well as the tactical objective.

Strategy 1.1: The MLT program was previously a traditional program incorporating face-to-face lectures and labs, and paper and pencil testing. In the Spring of 2004, the program faculty began exploring means by which to deliver online testing to the students. During that same time frame, the faculty became aware of the potential advantages of incorporating several online course components in the traditional classroom setting. The faculty requested and received funds for test generating software and an authoring tool to create Flash-based activities and games to enhance active learning.

In 2006-2007, the MLT program faculty began working on development of courses for online lecture delivery, as part of the collaborative Title V Grant with South Plains College. The faculty also received specialized software to incorporate interactive Powerpoint presentations online, with audio provided by instructors, in order to satisfy the needs of auditory, visual, and tactile learners. The online program certainly supports this portion of the strategic plan.

Strategy 1.2: There is a critical shortage of qualified Medical Laboratory Technicians and Technologists in the Amarillo College service area, as well as across the United States. It is projected that there will be a 53% shortage nationwide, in laboratory professionals within the next 4 years. The online program has enabled Amarillo College to expand and deliver its online course inventory, to include the entire MLT program, to students within and beyond the service area. This new program component will assist in fulfilling the projected local demand for medical laboratory personnel.

In addition, the faculty of the program have been more proactive in their student recruitment and retention efforts. This has resulted in increased student enrollment.

After reviewing at least one example of improvements/revisions that is a response to accomplish a strategy or tactical objective within the Strategic Plan 2010-2015, determine the extent to which this program/department has contributed to the implementation success of the Strategic Plan? Does this department/program understand how it relates to the institution's future based on the Strategic

Plan?

Commendation

Great research and improvements.

Does this Committee have recommendations as to how this program/department may contribute to the implementation of the Strategic Plan?

Acceptable

Provide names and titles of those who determined the process used to assess outcomes of the program and/or courses in the department.

Janet M. Martin, AAS, BA, MEd, MLT/MT (ASCP), CLT/CLS (NCA)
Associate Professor/Program Director
Medical Laboratory Technology

Kim M. Boyd, AAS, BAAS, MLT (ASCP), MT (AMT)
Instructor/Education Coordinator
Medical Laboratory Technology

Has the program/department had a broad base of involvement from a majority of faculty and staff with the program/department regarding implementation of student learning outcomes of the program(s) (or department) and courses? What recommendations does the committee have for increasing involvement?

Acceptable

Explain the primary reasons behind the competencies that were selected.

The program competencies are based on the program goals, which were derived from the description of the clinical laboratory science profession and career entry of the Clinical Laboratory Technician/Medical Laboratory Technician, set forth by the National Accrediting Agency for Clinical Laboratory Sciences in the Standards of Accredited Educational Programs for the Clinical Laboratory Technician/Medical Laboratory Technician. Please click on the following link:

- [NAACLS Standards of Accredited Educational Programs for the Clinical Laboratory Technician/Medical Laboratory Technician](#)

Do the selected competencies appear to be valid?

Acceptable

Identify the primary reasons for the assessment tool(s) selected.

All of the assessment tools are based on quantitative measures, in order to assure that the assessments are strictly objective. The tools used were carefully selected by the program officials as being the most valid and providing the best comprehensive evaluation of each of the program competencies.

For example:

The first competency is based on measuring the student's overall cognitive/psychomotor knowledge/skills after completing all of the required courses in the program. The standard is that 100% of the graduating sophomore students will meet or exceed a score of 70% on at least one of three final comprehensive capstone exams. The capstone exam is the only assessment tool that will accurately reflect the student's overall knowledge of Medical Technology.

Will the assessment tool(s) selected provide valid and reliable results?

Acceptable

Evaluate the assessment approaches to date.

The assessments collectively evaluate cognitive, psychomotor and affective aspects of the Medical Laboratory Technology Program. Careful thought was given to determine the means by which all educational domains could be evaluated, as they relate to the program's objectives. A wide variety of assessment techniques were chosen and are being utilized to evaluate the various program objectives/competencies including:

- Comprehensive capstone exams (Cognitive domain)
- [Practicum task performances](#) (Psychomotor domain)
- [Practicum professional evaluations](#) (Affective domain)
- [Student competency evaluations](#) (Cognitive and psychomotor domains)
- [Employer satisfaction surveys](#) (Cognitive, psychomotor, and affective domains)
- [Participation in promotional activities for National Medical Laboratory Professionals Week](#) (Cognitive and affective domains)
- [Student research presentations](#) (written and oral) (Cognitive domain)

These tools are more than satisfactory to meet the needs for outcome assessment.

Will the assessment approaches(s) selected provide valid and reliable results?

For student or program/course outcome assessments, review the program's/department's five-year graph(s) of quantitative results or provide a brief narrative summary of qualitative results.

Goal Statement 1, Objective A

"100% of graduating Sophomore students will meet or exceed a score of 70% on at least one of three final, comprehensive capstone exams, administered during the final semester of the Medical Laboratory Technology program. The tests are composed of questions covering all of the major and minor disciplines in clinical laboratory science. The questions utilize three taxonomic levels (recall, interpretation, and problem solving), and they are derived from registry-type questions from various nationally recognized Medical Lab registry review texts."

In the last 4 years, there has been an 8.2% increase in the capstone exam scores. This is most likely due to the incorporation of new, updated course materials and new instructional techniques/technology in all of the Medical Lab courses.

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Goal Statement 1, Objective B

"100% of the students will achieve a score of 70% or better on the Task List student evaluation instruments in all Practicum I and II rotations, during the Sophomore year of the Medical Laboratory Technology program. This instrument provides an evaluation of the essential cognitive and psychomotor aspects of Medical Laboratory Technology in a professional, medical setting."

For each of the 5 years measured, the students have consistently achieved an overall score of >70% on the Task List student evaluation instruments. In fact, 100% of the students have achieved an overall average of >85% on the Task List student evaluations. The program officials will continue to reinforce the psychomotor skills necessary for students to achieve entry level competence in the clinical setting.

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Goal Statement 2, Objective A

"100% of all Medical Laboratory Technology Program graduates will have achieved a score of "Pass" on a Pass/Fail basis, indicating cognitive and psychomotor competency, for all areas indicated on the Amarillo College Medical Laboratory Technology Competency Profile. The profile is updated by program officials and adjunct clinical faculty at the conclusion of each semester of the Medical Laboratory Technology program, and completed prior to the last semester of the program. The profile includes basic tasks and psychomotor skills required of the entry level Medical Laboratory Technician."

The MLT students have consistently maintained a 100% pass rate on the program's competency profiles. The competencies are based on tasks performed in the clinical, practicum, and classroom laboratory environments. In order to complete the tasks, students must be able to demonstrate knowledge of the task to be performed; they must perform the specified tasks correctly and without assistance; and they must be able to interpret or explain the results or outcomes as a result of task performance. Some students are able to achieve competency faster than others, and a few have required additional time in the clinical and/or practicum environment. All students must demonstrate entry level competency in all of the designated categories, however, prior to graduation.

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Goal Statement 2, Objective B

"100% of all completed and returned Employer Satisfaction Surveys will rate employees, who are graduates of the Amarillo College Medical Laboratory Technology Program, with an average score of at 3.5 or better on a Likert scale of 1-5. The surveys are mailed out to employers approximately 9 months to one year post graduation. The surveys include questions that encompass all three taxonomic domains. Specifically, test performance/knowledge and professional skills and attitudes are addressed and evaluated."

In each of the years prior to 2006, the average score on the employer satisfaction surveys exceeded the minimum targeted score of 3.5. In 2006, however, the average overall score on the Employer Satisfaction Surveys fell to an unacceptable 3.26. All of the students in the graduating class of 2006 earned good to excellent evaluation scores throughout their clinical/practicum rotations from the same individuals who returned the Employer Surveys. After analyzing the comments section of the 2006 Employer Surveys, it was noted that the employers were complimentary of the training received, as well as the graduate's demonstration of knowledge. The areas identified as deficient included those associated with professional behaviors.

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Goal Statement 3, Objective A

"90% of the students will prepare an informational visual presentation pertaining to the clinical laboratory profession. The presentation is utilized

to present information regarding different aspects of laboratory medicine during National Medical Laboratory Week, and is viewed by students and faculty in the Allied Health Division, as well as the general public. The purpose of the presentation is to augment the student's cognitive understanding of at least one aspect of laboratory medicine, to educate other medical professionals as well as the general public, and to promote the laboratory profession, in general. All students enrolled in the Medical Laboratory Technology program are strongly encouraged to participate."

Students participation in this event is a requirement for the students in the Medical Laboratory Technology program, however it is also an excellent opportunity for students to develop additional knowledge and and to hone their public relations skills. In addition, it provides an opportunity for students to promote their chosen profession to other health professionals, as well as to the general public. In 3 of the last 5 years, 100% of the students participated in this activity, far exceeding the 90% benchmark. In 2004 and 2007 however, student participation was below the 90% benchmark. It should also be noted that in 2007, all MLT students in both the Freshmen and Sophomore classes were required to participate in this activity.

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Goal Statement 3, Objective B

"100% of the Sophomore students will prepare and present an in-depth advanced research project, and achieve an average score of 90%, as evaluated by their instructor and their peers. The project will include a research paper prepared according to specific guidelines, set forth by program officials. The students will present their research to the Med Lab faculty and to their peers during the last semester of the Medical Laboratory Technology program. The presentation must include audio-visual aides and must demonstrate sufficient depth of knowledge as would be expected of students at this level of education. Evaluation of the presentation based on appropriate selection of subject, depth of subject matter, structure of project (grammar, spelling, proper citation of information, etc), communication/presentation techniques, and audio/visual aides."

The overall average for each of the target years has been well within the 90.0% target score, however there were a few students whose individual scores were below 90.0% in 2002, 2006, and 2007. Many of the problems which resulted in low individual students scores were related to the failure

of students to turn in various components of their presentations on time. The majority of problems, however, appear to have been the result of overall problems with grammar, spelling, sentence structure, and documentation of resources in the student papers.

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Goal Statement 4, Objective A

"100% of the students will achieve a score of 70% or better on the Student Professional Evaluation instruments in all Practicum I and II rotations, during the Sophomore year of the Medical Laboratory Technology program. This instrument provides an evaluation of the affective aspects of Medical Laboratory Technology in a professional medical setting including professionalism (attire, demeanor and conduct), dependability, ability to reason and learn, initiative, attitude, and adaptability."

With the exception of one student's score in one single clinical/practicum rotation in 2003, all of the individual student scores have met or exceeded the 70.0% benchmark.

Review the program's/department's five-year graph(s) of quantitative results for student or program/course outcome assessments, or provide a brief narrative summary of qualitative results.

Acceptable

What changes have been made in the curricula of the program/department because of the analysis of these results?

2007-2008 PET Form, Goal Statement 2, Objective B

The Employer Satisfaction Survey Results for the Medical Laboratory Technology graduates have consistently been at a level well above the 3.5 standard, with the exception of 2006. The faculty have increased their emphasis on work ethics, and have incorporated a work ethics program, created by the state of Georgia. Students are now evaluated on their work ethics in every course in the MLT curriculum and are given at least

one work ethics assignment each week to be sure that they are aware of the true value of work ethics. Work Ethics evaluations are worth a total of 10% of the student's grade in each course. It is to be hoped that the inclusion of this measure, and the emphasis placed on work ethics in each course, will result in significantly better Employer Satisfaction Survey results with the graduating class of 2007.

2007-2008 PET Form, Goal Statement 3, Objective A

Student participation in National Medical Laboratory Week is a requirement for the students in the Medical Laboratory Technology program, however it is also an excellent opportunity for students to develop additional knowledge and to hone their public relations skills. In addition, it provides an opportunity for students to promote their chosen profession to other health professionals, as well as to the general public. In 3 of the last 5 years, 100% of the students participated in this activity, far exceeding the 90% benchmark. In 2004 and 2007 however, student participation was below the 90% benchmark. The faculty of the Medical Laboratory Technology program have revised requirements and created incentives for student participation. In addition, the project is now part of the work ethics evaluation for both Freshmen and Sophomore level students, and is also part of the research grade for Sophomores. It is to be hoped that this will encourage greater participation.

Have any changes been made in the curricula because of the analysis of these results?

Commendation
Great initiative.

Review the five-year graph(s) of course completions for the program/department. Explain any increase or decrease that is more than a one-year anomaly.

There have been no statistically significant increases or decreases in course

completion during the last five years. There was an overall average increase of 5% of students completing the program courses with a grade of A-C in 2005, 2006, and 2007, as compared with a similar group of students in 2004.

Does the review of the five-year graph(s) of course completions demonstrate the use of analysis to implement a plan of action for retention? Is the analysis of any increase or decrease that is more than a one-year anomaly accurate?

Acceptable

Provide the program's/department's plan of action for improving any identified problem or results from the implementation of the plan of action.

The program officials have determined that there are no problems indicated at this time that warrant the implementation of a plan of action.

Will the plan of action likely improve the number of course completers?

Acceptable

Does the program/department provide for alternative methods of awarding credit?

Tech-Prep Credit by Exam

Has the program/department provided for alternative methods of awarding credit? If not, which alternative methods would be recommended?

What approaches are used to assure outcomes are comparable to those expected of students who enrolled and completed the course?

Acceptable

For general education and/or core curriculum required by this program/department, identify the relevant competencies approved by the Academic Affairs Committee (see Catalog section entitled Degrees and Certificates: General Education Competencies).

The Medical Laboratory Technology program has selected general education courses that not only fulfill the degree requirements for the AAS degree but also the general education competencies set forth by Amarillo College. In addition, all the of courses in the Medical Lab curriculum fulfill one or more of the general education competencies. Please click on the following link to view the General Education Competency Crosswalk:

- [Crosswalk for General Education Competencies](#)

Have all relevant competencies for general education and/or core curriculum been identified for this program/department? If not, which are obviously a part of this program/department's general education competencies?

Acceptable

Explain how outcomes for the competencies have been assessed and achieved and provide links to the documentation.

The assessments to determine achievement of the outcomes for the competencies for general education courses is the responsibility of the department chair/division chair that administers those courses.

The assessments to determine achievement of outcomes for general education competencies in the Medical Lab curriculum are varied, and are evaluated by the instructor responsible for each course. Due to the requirements of the program's external accreditation agency, the faculty of the program have maintained and distribute the SCANS course competencies to every student enrolled in each course. These competencies include mathematical skills; application of skills; communication skills; technological literacy; and ethics, integrity, and diversity.

- [MDCA 1409: Anatomy and Physiology for Medical Assistants](#)
- [MLAB 1201: Introduction to Clinical Laboratory Science](#)
- [MLAB 1211: Urinalysis/Body Fluids](#)
- [MLAB 1227: Coagulation](#)
- [MLAB 1235: Immunology/Serology](#)
- [MLAB 1331: Parasitology/Mycology](#)
- [MLAB 1415: Hematology](#)
- [MLAB 2266: Practicum 1](#)
- [MLAB 2267: Practicum 2](#)
- [MLAB 2271: Seminar 1](#)
- [MLAB 2431: Immunochemistry](#)
- [MLAB 2472: Seminar 2](#)
- [MLAB 2501: Clinical Chemistry](#)
- [MLAB 2534: \(Clinical\) Microbiology](#)
- [PLAB 1163: Clinical - Phlebotomy/Phlebotomist](#)
- [PLAB 1223: Phlebotomy](#)

In addition, aesthetic awareness is evaluated in MLAB 1201, MLAB 2472, and PLAB 1223.

Assessment methods used to evaluate the outcome achievement include:

- **Mathematical Skills:** Class discussions and demonstrations; think-pair-share activities; quizzes and exams; collaborative activities; mathematical games; laboratory activities and laboratory practical exams that include performance of numerous, difficult mathematical calculations in order to derive patient laboratory results.
- **Application of Skills:** Case studies; study questions; laboratory sessions; laboratory practical examinations; clinical/practicum experiences and evaluation of student competency in performing essential tasks in the clinical laboratory .
- **Communication Skills:** Email; student research papers; online discussions

and journaling; class discussions and activities; homework assignments; oral presentations; student evaluation of clinical/practicum facilities; case studies; and study questions.

- **Technological Literacy:** Online testing; email; online discussion boards and journaling; student generated PowerPoint presentations; online case studies; online submission of assignments; and computer assisted tutorials.
- **Aesthetic Awareness:** Classroom presentations and Laboratory Week presentations that are evaluated partially on the basis of creativity and the aesthetic qualities of design, composition, color, and balance..
- **Ethics, Integrity, and Diversity:** Work Ethics evaluations; professional evaluations in clinical/practicum courses; culture diversity discussions and activities; group activities involving development of empathy and understanding of individuals with various disabilities.

Is the explanation of assessment approach(es) for general education competencies (outcomes) thorough? Is the analysis of the results accurate? Have links to documentation which verify the assessment results been included?

Acceptable

Outline a plan for correcting any weaknesses.

The program officials have detected no significant weaknesses that warrant corrective action at this time. They continue to explore and develop new and innovative instructional techniques in both the face-to-face and online course environments.

If assessment results and analysis are included, is there a plan for correcting any weaknesses included?

Acceptable

Do students/graduates in this program/department have to be certified or

licensed?

yes

Review the results for certification/licensure results of the program/department and/or job placement for the past five years. Explain any increase or decrease that is more than one-year anomaly.

Graduates of the program are required to pass a nationwide certification exam, however they have up to five years post-graduation in which to take the exam. Graduates have the option to become certified through multiple agencies, all of which require a substantial fee for reporting exam results to educational agencies. It is cost prohibitive for this program to pay all of the fees to all of the certification agencies, and the program currently receives results from only one of the agencies, as required by the program's accrediting agency. In addition, students have the option to withhold release of their exam scores from many of these agencies. The program cannot require students to take and pass their certification exams as a condition of graduation. Therefore, the Amarillo College Medical Laboratory Technology Program does not have the ability to compile complete and accurate records of certification results for program graduates.

Under Section II, letter K of this report, complete job placement statistics are provided.

Provide a plan of action for the identified problem.

No plan of action is necessary. The program faculty will continue to monitor student employment/job placement rates as a measure of success.

IF students/graduates in this program/department have to be certified or licensed, do the results over the past five-years indicate that certification/licensure have been equal to or greater than the

average of the past five-years AND/OR equal to the statewide or national benchmark for this certification/licensure? IF NOT, does the analysis and plan of action appear that the program/department has thoroughly reviewed the problem?

Acceptable

Is the program's/department's plan of action for improving any identified problem or results likely to improve the certification/licensure results? Did program/department explain any increase or decrease that is more than a one-year anomaly? Does the plan correct any weaknesses included? If not, what is missing?

Acceptable

IF the department or program offers one or more technical programs (Associate in Applied Science or Certificates), has the program/department included an explanation of the job placement success during the past five years AND are these results at least equal to the statewide annual benchmark (90%)?

Is the analysis of any increase or decrease that is more than a one-year anomaly accurate?

The graduates of the Medical Laboratory Technology Program have demonstrated 100% success for this outcome for all but one of the past 5 years.

Is the program's/department's plan of action for improving any identified problem or results likely to improve the job placement rate for graduates of the technical program(s)? If not, what is missing?

The program officials have determined that based on the statistical data provided, no plan of action is indicated at this time.

IF the department or program offers one or more technical programs (Associate in Applied Science or Certificates), has the program/department included an explanation of the job placement success during the past five years?

Is the analysis of any increase or decrease that is more than a one-year anomaly accurate?

Acceptable

Is the program's/department's plan of action for improving any identified problem or results likely to improve the job placement rate for graduates of the technical program(s)?

Acceptable

Curricula

Does the program/department have affiliation(s)/agreement(s)/contract(s) with any other entity for the purpose of delivering instructional content?

yes

Review the affiliation(s)/agreement(s)/contract(s), consider Amarillo College's mission, and then make a recommendation to:

Provide an analysis of the review.

The Medical Laboratory Technology Program currently maintains affiliation agreements/contracts with the following entities for clinical/practicum instruction:

- Amarillo Diagnostic Clinic
- Baptist St. Anthony's Health System
- Childress Regional Medical Center
- Coffee Memorial Blood Center
- Coon Memorial Hospital
- Hemphill County Hospital
- Hereford Regional Medical Center
- Moore County Hospital District
- Northwest Texas Healthcare System
- Pampa Regional Medical Center
- Physician's Preferred Laboratory
- Thomas E. Creek Department of Veterans Affairs Medical Center

The affiliation agreements are written in accordance with Amarillo College Administration and Amarillo College legal counsel. The MLT program officials have essentially no direct input into the wording or construction of the contracts with the exception being that any affiliation contract that includes MLT students must comply with the basic requirements set forth by NAACLS.

Please click on the following to view the NAACLS Standards of Accreditation, regarding affiliations and affiliation agreements:

- [NAACLS Requirements for Accreditation: Institutional Affiliation](#)

If the program/department has affiliation(s)/agreement(s) with any other entity for the purpose of delivering instructional content, do these affiliations/agreements make it clear that Amarillo College maintains the responsibility for controlling all aspects of the educational program? Has the College ensured the quality of the program with these affiliations/agreements? If so, how? What is the schedule for reviewing the quality of these programs? Has the College ensured that programs remain with Amarillo College's mission?

How many curricula changes were approved by the Academic Affairs Committee during the past five years?

7

Which steps in the curricula change process had faculty involvement prior to submitting the curricula proposal(s) to the Academic Affairs Committee?

The curriculum review/revision process involves all of the faculty in the MLT program. The program officials meet and discuss the pros and cons of all proposed curriculum changes. The proposed changes are then discussed with the Division Chair for Allied Health, and then they are brought to the program's advisory board

committee for approval. The program director then prepares the documentation required for the changes and submits the information to the Academic Affairs Committee.

Was the departmental faculty involvement documented and broad in representation? If not, what steps within curricula change process should have had more proof of greater departmental faculty involvement? Is the primary responsibility for curricula changes under the control of faculty? Does the program have a qualified faculty member in charge of the program's coordination and curriculum development?

Is any program within the department a technical program (e.g. AAS or certificate)?
yes

When was the last Advisory Committee meeting?

April 27, 2007

Provide a link to the minutes of the last Advisory Committee(s) minutes in the Electronic Archives.

[Medical Laboratory Technology Advisory Meeting Minutes - Friday, April 27, 2007](#)

Provide a link to the appropriate committee membership of the Advisory Committee(s) in the Electronic Archives.

[Allied Health 2007-2008 Advisory Board Members](#)

If the department offers an AAS and/or certificate, do the minutes of the Advisory Committee prove that the curricula for each program is appropriate to the degree and/or certificate? Has the Advisory Committee been consulted in designing each degree and certificate? Has the Advisory Committee met at least once a year and been provided ample opportunity to guide the faculty in curricula changes?

Concern

Link would not pull up when clicked. More than likely it is my computer.

Is the membership of the Advisory Committee broad enough to provide the scope of advice necessary for input on curricula? If not, what changes are recommended to the program/department?

Acceptable

Enrollment Data

After receiving the data indicating the number of students enrolled in the program/department, by total students, number of full-time equivalents, and number of completers, determine if there is more than a one-year anomaly.

If so, provide the faculty and staff analysis of

their assessment of the problem.

There has been a dramatic increase in the number of students enrolled in the MLT program since 2005. This trend is expected to continue through the next few years, as a result of the impact of the Title V Grant, and the implementation of the online program.

In addition, Ms. Kim Boyd, Education Coordinator and Instructor for the program, has been highly instrumental in aggressively promoting the program in her continuing education Phlebotomy class. Several students in that course have subsequently enrolled in the MLT program, largely due to Ms. Boyd's positive attitude and promotional efforts, and she is certainly to be commended for her efforts.

The number of full-time equivalent students has remained virtually unchanged over the past five years. For various reasons, more students are opting to complete most or all of their general education requirements prior to entering the program, necessitating a three year commitment, rather than completing all general education and core curriculum requirements in two years. As a result, program statistics reflect very few "full-time" students.

The number of students who have successfully completed their MLT courses has risen steadily, with the increase in program enrollment, since 2003. As mentioned previously, the percentage of completers remains between 89% and 96%. This level of completion is superior, as compared to many other programs that have completion rates between 50% and 75%, based on anecdotal information.

Does the analysis by the faculty and staff of this data address any obvious problems/declining statistics?

Acceptable

Create an action plan for needed improvement and commendation for any dramatic improvement.

The program officials will continue to aggressively promote both the on-campus and online programs.

Does the action plan or commendation address the problem addressed within the analysis? Does it appear that implementation of the action plan will resolve the problem and correct the decline?

Acceptable

Does the External Review Committee have any other analysis or recommendations for increasing enrollments based on the program/department's data?

For programs/departments with majors, review the graphs of program majors and the number of new majors by year.

Provide an analysis of the program's/department's faculty and staff assessment of the problem and an action plan for needed improvement and commendation for any dramatic improvement.

In line with the increase in enrollment since 2005, there is an accompanying increase in program majors and new majors during the same time frame. The MLT program officials are cautiously optimistic about this trend and will continue to promote both the on-campus and online programs.

Does the analysis by the faculty and staff of

this data address any obvious problems/declining statistics regarding students enrolled as majors within the program/department? Does the action plan or commendation address the problem addressed within the analysis? Does it appear that implementation of the action plan will resolve the problem and correct the decline? Does the External Review Committee have any other analysis or recommendations for increasing the number of students majoring in this program/department based on this program's/department's data?

Acceptable

Resources

Review the five-year graph(s) of the student-to-faculty ratio in the program/department. Explain any increase or decrease that is more than a one-year anomaly.

The student to faculty ratio has doubled between 2005 and 2007, as a result of the increase in student enrollment.

Does the analysis by the faculty and staff of this data address any obvious problems/declining statistics regarding

student-to-faculty ratio within this program/department?

Provide an action plan for improvement of any identified problem.

In spite of the significantly increased student to faculty ratio since 2005, the number of full-time faculty members is considered adequate to support the purpose of the program/department. In addition, the program officials are currently seeking part-time faculty in the Lubbock-Levelland area to assist in the didactic and laboratory instruction of the online students.

Does the action plan or commendation address the problem addressed within the analysis? Does it appear that implementation of the action plan will resolve the problem and correct the decline? Does the External Review Committee have any other analysis or recommendations regarding student-to-faculty ratio within this program/department?

In the database for [Roster of Instructional Staff](#) (also known as Roster of Faculty), review the credentials of each full-time and part-time faculty member within the program/department. If any faculty member does not meet the SACS and THECB requirements, evaluate whether

additional documentation is significant to grant an exemption.

Both full-time faculty members meet the SACS and THECB requirements through a combination of degrees, certifications, and work experience in laboratory medicine.

Ms. Janet Martin

- AAS - Medical Laboratory Technology, Shoreline Community College, Seattle, Washington
- BA - Home Economics/Food and Nutritional Science (Chemistry/Biology Concentration), California State University, Sacramento, Sacramento, California
- MEd - Educational Leadership, Wayland Baptist, University, Plainview, Texas
- MLT - Certification - Medical Laboratory Technician - American Society for Clinical Pathology
- MT - Certification - Medical Technologist - American Society for Clinical Pathology
- CLT - Certification - Clinical Laboratory Technician - National Credentialing Agency for Laboratory Personnel
- CLS - Certification - Clinical Laboratory Scientist - National Credentialing Agency for Laboratory Personnel
- 8 years experience as a Medical Technologist prior to employment at Amarillo College

Ms. Kim Boyd

- AAS - Medical Laboratory Technology, Amarillo College, Amarillo, Texas
- BAAS - West Texas A and M University, Canyon, Texas
- MS - Interdisciplinary Studies (In Progress) - West Texas A and M University, Canyon, Texas
- MLT - Certification - Medical Laboratory Technician - American Society for Clinical Pathology
- MT - Certification - Medical Technologist - American Medical Technologists
- 10 years experience as a Medical Technician/Technologist prior to employment at Amarillo College

Identify any faculty teaching a transfer course which, according to the information within the database for [Roster of Instructional Staff](#) (also known as Roster of

Faculty) do not meet the requirements of faculty teaching a transfer course and explain the credential problem. Identify any faculty teaching a technical course which, according to the information within the database for [Roster of Instructional Staff](#) (also known as Roster of Faculty) do not meet the requirements of faculty teaching a technical course and explain the credential problem based on SACS requirements and/or THECB requirements. Identify any faculty teaching a developmental course which, according to the information within the database for [Roster of Instructional Staff](#) (also known as Roster of Faculty) do not meet the requirements of faculty teaching a developmental course and explain the credential problem.

Acceptable

List the names and the last date for all full-time faculty evaluations based on the schedule indicated in the Faculty Performance Review (FPRP).

Janet Martin - Last evaluated by Bill Crawford, Chairman, Allied Health Division - Spring 2007

Kim Boyd - Last evaluated by Janet Martin, MLT Program Director - Spring 2006

If any full-time faculty member (or Board-

appointed faculty member) has not been completed the Faculty Performance Review (FPRP) within the past two years and is listed in the aforementioned [Roster of Instructional Staff](#) (also known as Roster of Faculty), identify the faculty member's name and the date of the last FPRP.

Acceptable

List the names of each part-time faculty and the last date of evaluation by students and supervisor for each course taught.

The MLT Program employs no part-time faculty, as of this date.

If any part-time faculty member has not been evaluated by both students and supervisor for each course taught within the past year and is listed in the aforementioned [Roster of Instructional Staff](#) (also known as Roster of Faculty), identify the faculty member's name and state the specific problem.

Acceptable

Amarillo College's Board Policy Manual defines each faculty member's academic freedom as "full freedom in the classroom in discussing the subject being taught and to pursue research and

publications. However, a faculty member must not attempt to force on students a personal viewpoint and must at all times allow for diversity of opinion." Has anyone in the program/department filed a grievance for violation of the aforementioned academic freedom?

no

If anyone within the department has filed a grievance for violation of academic freedom based on the definition stated in Amarillo College's Board Policy Manual, briefly describe the violation (excluding personal identifiers) and the total number of violations.

Acceptable

Which of the following library collections/resources/services have been used by faculty, staff and/or students within the past five years? (Select all that apply.)

Circulating collection Electronic journals

Interlibrary loan Personalized instruction

Proprietary databases Reference collection

Reserve collection Tutorials/guides

Does it appear that the library collections/resources/services used by the faculty, staff, and/or students within the

past five years are accurate and thorough?

Acceptable

Which two or three collection/resources/services should be improved to support Amarillo College's mission regarding teaching and service?

The interlibrary loan process appears to be lengthy, cumbersome, and somewhat complicated. It would be most helpful if this could be streamlined, though this is most likely dependant on the cooperation of the entire Harrington Library Consortium.

The medical references in the Northwest Library, adjacent to the West Campus of Amarillo College, could be augmented to meet the increasing needs of the Allied Health and Nursing students.

Has the program/department identified which two or three collections/resources/services should be improved to support Amarillo College's mission regarding teaching and service?

Acceptable

Does your program/department have discipline accreditation?

yes

How has the library participated in this discipline's accreditation?

Mark Hanna, Kaki Hoover, and Lillian Withrow, from the Amarillo College Library staff, have consistently supported the MLT program officials and students. They compiled a list of texts and periodicals related to Medical Laboratory Technology before the 2000 and 2007 NAACLS accreditation site visits, and assisted the visitors in accessing these resources. They have also consistently assisted MLT students with instruction for accessing reference materials, both online and in the physical holdings of the library. In addition, they have assisted students in preparation of

research assignments, gathering information for abstracts, and locating information on diseases and procedures for case studies and research assignments.

Does the program/department have a discipline accreditation? IF SO, has the library participated in completing the approver's evaluation?

Acceptable

After assessing the strengths and weaknesses of the program's/department's access to technology, what improvements would ensure that students have access and training in the use of technology?

The program officials have been well trained in the use of technology, however student access and comfort level with computer technology is lacking in many cases, especially with online and hybridized courses.

After discussing this with other MLT program directors and faculty, it appears that this problem is not unique to students at Amarillo College. The MLT program officials believe that Amarillo College needs to implement a mandatory training session for all students that includes an orientation to WebAdvisor as well as the current online course delivery system. This has been discussed for several years, but has yet to be made available to students. In addition, student access to general computer labs on all academic campuses, with staff that are trained and willing to assist students, could stand improvement.

Does the program's/department's assessment of strengths and weaknesses include ways to improve both students' access to & training in the use of technology?

Commendation

Excellent suggestion.

What improvements would ensure that students use technology?

- Student training in the use of WebAdvisor and the current online course delivery system
- Increased availability of student accessible, general computer labs on all academic campuses
- Provision of staff that are well trained and willing to assist students in accessing computer resources
- Implementation of a system or agreement by which students are able to borrow or lease computer equipment, perhaps by a third-party source

Does the program's /department's answer include improvements that would ensure that students use technology? Are the recommendation(s) of this program/department feasible?

Acceptable

Review program/department operations. Does any operation present the possibility for violations of security, confidentiality, or integrity of student records?

no

What changes need to be made to prevent violations of this nature?

After a review of this program's /department's operations based on this Self-Study and any other information available to this Committee, does any operation present the possibility for

violations of security, confidentiality, or integrity of student records? If so, describe those operations and identify the violation possibility in detail.

Acceptable

What changes need to be made to prevent violations of this nature?

Acceptable

Which support services need to be strengthened to better serve students in this program/department?

An online bookstore would assist in meeting the needs of the online Medical Laboratory Technology students. All other services are more than adequate to meet the needs of the students.

Explain what aspects of the services need to be strengthened.

Students should be able to access booklists for the succeeding semester as soon as it is available, and be able to order their books online, pay online, and have the option of having them shipped to their home or destination of choice. This is especially important for online students living a significant distance from Amarillo College.

Do the Self-Study recommendations of this program/department for support services that need to be improved appear to be valid?

Acceptable

Describe any indicators or problems that prevent a healthy, safe and secure environment for the students, faculty and staff of this program/department.

The environment on the West Campus is safe and secure overall, however the lack of a full-time security on the West Campus has the potential for future problems.

The current MLT laboratory facilities are outdated and some of the facilities (non-functional fume hoods and faucets; cracked countertops; etc) are in dire need of replacement. Although these problems do not currently pose a threat to the health, safety, and wellbeing of faculty or students in the Medical Laboratory Technology program, they have the potential to do so. Each of these problems, as well as rearrangement of space to create a more functional classroom and laboratory environment, will be addressed in the Facilities Master Plan with the passage of the recent bond election.

Are recommendations to assure a healthy, safe and secure environment for staff and students of this program/department valid? Are any of these recommendation(s) more significant and/or urgent?

Acceptable

Describe any indicators or problems that hamper adequate physical facilities, both on and off campus, to meet the needs of the program/department.

Parking continues to be a problem on the West Campus. This issue will also be addressed in the Facilities Master Plan with the passage of the recent bond election, to some extent.

Do any of the problems or concerns regarding adequate physical facilities appear to be significant and/or urgent? Are

there any other needs which this Self-Study didn't cite but are critical based on other information? Which of these needs are most significant and/or urgent?

Acceptable

Budget

Which program/department outcomes have resulted in budget requests to date?

Goal Statement 1, Objective A

"100% of graduating Sophomore students will meet or exceed a score of 70% on at least one of three final, comprehensive capstone exams, administered during the final semester of the Medical Laboratory Technology program. The tests are composed of questions covering all of the major and minor disciplines in clinical laboratory science. The questions utilize three taxonomic levels (recall, interpretation, and problem solving), and they are derived from registry-type questions from various nationally recognized Medical Lab registry review texts."

The MLT Program Director requested and received budgeted funds for program subscriptions to [MediaLab, Inc](#) and [MTS Training Solutions](#) websites. These websites have computer assisted tutorial programs, quizzes, and tests that encompass the vast body of knowledge inherent to Medical Laboratory Technology. Both of these websites are updated frequently throughout the year to ensure that users receive the latest information in the medical field. Students are given assignments on these websites throughout their tenure in the program, and it appears that these have significantly contributed to the increase in the capstone exam scores.

Goal Statement 1, Objective B

"100% of the students will achieve a score of 70% or better on the Task List student evaluation instruments in all Practicum I and II rotations, during the Sophomore year of the Medical Laboratory Technology program. This instrument provides an evaluation of the essential cognitive and psychomotor aspects of Medical Laboratory Technology in a professional, medical setting."

The MLT Program Director requested and received budgeted funds, over the last few years, to update laboratory equipment to reflect current technology in the field of

laboratory medicine. While the equipment is certainly not a duplication of the multimillion dollar equipment currently used in area medical facilities, the technology by which they operate is similar to the equipment purchased. It appears that this has improved the students task list evaluations in the clinical/practicum setting.

Have any of this program's/department's outcomes resulted in budget requests to date? If not, why not?

Acceptable

Project the program's/department's strategic initiatives for the next five years based on the program's/department's outcomes.

- Monitor technological changes in Medical Laboratory Technology and seek funding to replace instrumentation that is non-functional or outdated
- Seek additional resources to augment student knowledge in new innovations in Medical Laboratory Technology
- Encourage students to promote their profession and seek immediate employment/additional educational opportunities post graduation
- Pursue active communication with clinical/practicum instructors to detect and resolve student work ethic problems prior to graduation and subsequent employment
- Create a more functional laboratory environment to increase student understanding of work flow and instrument usage

Has this program/department been able to project strategic initiatives for the next five years based on the program's/department's outcomes? If not, what appears to be blocking this program/department from accomplishing this?

Acceptable

Publications

If the program/department publishes any advertising or recruitment documents (electronic or paper), do the documents accurately represent Amarillo College and the program/department?

yes

If no, explain what is inaccurate.

IF the program/department has published any advertising or recruitment documents (electronic or paper), check at least one copy of each document and determine whether it accurately represents Amarillo College and the office/department?

Concern

There is no link to documents.

IF anything appears to be inaccurate, identify the apparent violation.

Does the program/department publish any documents (electronic or paper) with references to SACS accreditation?

yes

Are the references in compliance with SACS approved statement?

yes

Which reference is not in compliance? Describe

how you will assure compliance for all references in the future.

IF the program/department has published any document(s) with a reference to SACS accreditation, are all references consistent with the approved statement? (Approved reference: Amarillo College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. Contact the Commission on Colleges at 1866 Southern Lane Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Amarillo College.) IF any references are inconsistent, identify all documents with the inconsistent reference(s).

No link.

IF the Self-Study did identify the inconsistencies, does the plan for assuring future compliance appear to correct the problem? IF the Self-Study did NOT identify all inconsistencies, what plan does this Committee recommend?

Other

State any additional comments/concerns which may impact this program/department during the next five years.

The shortage of qualified Medical Laboratory professionals is at a critical level worldwide. This shortage is finally being brought to the attention of the general public, and has resulted in an increase in the salaries for MLTs as well as increased opportunities for educational funding by medical facilities. It is certainly expected that this will have a positive impact on enrollment in this program during the next five years.

- ["Medical laboratory workforce shortage exposed"](#)
- ["Recruiting Campaign Addresses Growing Shortage of Medical Lab Professionals"](#)
- ["Medical Lab Personnel Shortage Act"](#)
- ["Legislative Solutions to the Laboratory Workforce Shortage"](#)
- ["Week Highlights Contribution of Medical Lab Professionals"](#)
- ["ASCP Addresses the Laboratory Workforce Shortage"](#)

IF additional comments/concerns were included in the Self-Study regarding items which may impact this program/department during the next five years, what recommendations and/or concerns are warranted? IF NO such items were included in the Self-Study but this Committee feels such comments or concerns are valid, cite them and include any relevant recommendations.

Acceptable