

Submit on blue paper

COURSE / CURRICULUM MODIFICATION REQUEST

COLLEGE **Health and Human Services**

****COURSE CHANGE**

- ☐ Create new course
☐ Eliminate course
☐ Modify existing course (mark all that apply):
☐ Title ☐ Description ☐ Prerequisite
☐ Course content
☐ Course number (old course number to be deleted)
☐ Credit Hours ☐ Term offered
☐ Contact Hours
☐ Method of instruction (see table on reverse)
☐ Web-centric
☐ Web-based (definitions on reverse)

Requested Course change effective date: (Semester/Year)

Implemented by Registrar, effective:

**reviewed by Undergraduate Council if it has broad impact

PROGRAM CHANGE

Program Name: **Medical Laboratory Science**

- ☐ Minor change to program requirements/checksheet
☐ Change program name
☐ *Create new program and new program code (check one):
☐ degree ☐ major ☐ minor
☐ specialization ☐ certificate
☐ *Major change to program requirements/checksheet
☒ *Program to be available 100% online
☐ *Add, delete, modify program matriculation requirements
☐ *Suspend admission to and/or eliminate a program

Requested Program effective date: **Fa 23** (Semester/Year)

Implemented by Registrar, effective:

*reviewed by Undergraduate Council

CATALOG DESCRIPTION for a new or modified course, OR BRIEF OVERVIEW of program change (limit 675 characters):

A new Bachelor of Science in Medical Laboratory Science (MLS) online completion program is being proposed by the Department of Public and Allied Health. The BS in MLS completion program is designed to prepare students with an Associate of Science degree in Medical Laboratory Technician (MLT) to gain necessary education to become a certified MLS. The department currently holds the MLS degree and the new degree would be utilizing current courses and curriculum to create this program for students already certified as MLT(ASCP), a professional distinction conferred by the American Society for Clinical Pathology's Board of Certification.

(If this is a new course or if the "Method of instruction" box is checked above):

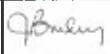



Maximum Class Size Grading method: ☐ A/F ☐ S/U only ☐ A/B/C/NC (No Credit) ☐ S/NC (No Credit)

Method(s) of Instruction and contact hours

*See page two for Methods of Instruction definitions and approved combinations

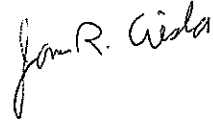
What other colleges or departments/programs may be affected by this proposal?

**Please attach comments from affected units and circulate them with the curriculum modification request.

	Position	Name (print or type)	Signature	Date
1	Proposer Tel: 419- 3726193 Position: MLS Program Director	Jessica Bankey		04/29/2022
ADEQUATE LIBRARY MATERIALS ARE AVAILABLE (For NEW COURSE or NEW PROGRAM only):				
2	Dean, University Libraries	<input type="text"/>		
APPROVED:				
3	Chair or School/Program Director	Jessica Bankey		04/29/2022
4	Chair, College/School Curriculum Committee	Tom Gorman	 <small>Thomas Gorman (Apr 29, 2022 15:10 EDT)</small>	04/29/2022
5	Dean of College	James Ciesla	 <small>James Ciesla (May 3, 2022 13:48 EDT)</small>	05/02/2022
6	Secretary, UGC (major changes only)	Sarah Meussling		
ACTIONS OF UNDERGRADUATE COUNCIL ARE REVIEWED BY THE FACULTY SENATE COMMITTEE ON ACADEMIC AFFAIRS (CAA).			Materials sent to CAA on:	
7	Provost/VPAA	Glenn Davis		
REVIEWED AND IMPLEMENTED BY:				
8	Registrar	<input type="text"/>		

TO: Glenn Davis, Vice Provost for Academic Affairs

FROM: Jim Ciesla, Dean, College of Health and Human Services



DATE: December 1, 2022

RE: Bachelor of Science in Medical Laboratory Science online degree completion

This memo is to confirm that students who choose to pursue the proposed online option for the Bachelor of Science in Medical Laboratory Science (BS-MLS) will earn the same degree as those students enrolled in the existing face-to-face BS-MLS degree. The 100% online degree completion program option will allow graduates of Associate of Science in Medical Laboratory Technician programs accredited by the National Accrediting Agency for Clinical Laboratory Sciences to gain the education necessary to become Medical Laboratory Scientists. Transcripts of previous coursework, including supportive courses taken elsewhere, will be evaluated for transfer credit by the Office of Registration and Records or for equivalency by the MLS program coordinator. While it is the same degree, the 100% online option is limited to associate degree holders as described above. Students admitted to the main campus clinical bachelor's degree will complete the face-to-face program.

PROGRAM CHANGE REQUEST FORM

This sheet is an overview of the content and format of proposals for a new undergraduate program, or for elimination or modification of an existing program. Most program changes must be reviewed by Undergraduate Council and, in some cases, by the Board of Trustees and/or the Ohio Board of Regents. As a result, a proposal for program changes should generally be prepared in consultation with the Office of the Senior Vice President for Academic Affairs and Provost. Some of the information in the proposal must be summarized on the COURSE/CURRICULUM MODIFICATION REQUEST cover sheet ("blue sheet") that will accompany it through the approval process. *Depending on the nature of the request, it may not be necessary to provide all the information below. Please use your own responses to the checkbox items on the "blue sheet" as a guide for deciding which items below are relevant to your proposal.* Please use the outline headings shown below to prepare your document; omit any that do not apply.

A. THE MODIFICATION

1. *For all proposals:* Describe briefly the nature of the proposed change.

A new Bachelor of Science in Medical Laboratory Science (MLS) online completion program is being proposed by the Department of Public and Allied Health. The BS in MLS completion program is designed to prepare students with an Associate of Science degree in Medical Laboratory Technology (MLT) to gain necessary education to become a certified MLS. The department currently holds the MLS degree and the new degree would be utilizing current courses and curriculum to create this program for students already certified as MLT(ASCP), a professional distinction conferred by the American Society for Clinical Pathology's Board of Certification.

The curriculum modification process is intended to change program requirements as represented in the Undergraduate Catalog and on checksheets. For this reason, all curriculum modifications for new programs or program revisions must include:

- 1.1 A checksheet that shows and highlights the proposed change(s). (Please make the *changes* on the checksheet *obvious*, preferable with revision markings).
 - 1.2 Catalog pages (printed from the current version of the online catalog) showing the proposed changes. (Please use revision markings or some other device to make *changes obvious*). If a new program is being proposed, then new catalog copy should be submitted. Care should be taken to ensure that the proposed changes to the catalog match the proposed changes to the checksheet.
2. List courses to be taken out of program requirements. (If courses are to be eliminated from course inventory, submit a separate "course change" for that action).
 3. List courses to be added to program requirements. (If new courses are to be added to course inventory, submit a separate "course change" for that action).

AHS 3568- Transcultural Healthcare (3)

MLS 4080- Molecular Diagnostics (3)

MLS 4110- Diagnostic Immunology I (3)

MLS 4130- Immunohematology I (4)

MLS 4210- Hematology I (3)

MLS 4230- Hematology II (2)

MLS 4300- Diagnostic Microbiology I (3)

MLS 4310- Diagnostic Microbiology II (3)

MLS 4360- Clinical Virology (1)

MLS 4410- Clinical Chemistry I (4)
MLS 4510- Analysis of Body Fluid (2)
MLS 4650- Laboratory Management and Education (1)
MLS 4800- Clinical Research (1)
MLS 4910- Clinical Studies (1-3)

4. *For proposals to make major changes to program requirements:* Describe any change to the sequence of courses within a major/minor/area of specialization/certificate.

Not applicable. This is a new degree program.

5. Will this change result in modification of student learning outcomes? ☐ yes ☒ no
If yes, list all changes to the student learning outcomes related to the curriculum modification and describe the plan for assessing those outcomes.

6. Program changes approved before the January deadline for the Catalog update will be recorded in the Catalog and will be in effect for checksheets in the fall of that year.

B. RATIONALE *[Required for all proposals]:*

1. Reason/Need for the change. For new programs, explain how this fits with the Academic Plan.

Through the creation of a degree completion program, we are meeting the need for laboratory professionals in the community. By creating the MLT to MLS completion program, we are giving those who are working in the clinical lab an opportunity to gain higher education necessary for advancement in the profession. This pathway can also be utilized for those already working in the clinical lab to help them obtain necessary science courses needed to serve as supervisors within the lab and to complete competency signoffs, as required by governmental agencies.

2. Student implications (describe the basis for each estimate)

- 2.1 Prospective demand for a new degree/major/minor (level of student interest).

Based on the evolving needs in clinical laboratory medicine, the Bureau of Labor Statistics (BLS): "employment of clinical laboratory technologists (medical laboratory scientists) is projected to grow 7% from 2019 to 2029, faster than the average for all occupations. An increase in the aging population is expected to lead to a greater need to diagnose medical conditions, such as cancer or type 2 diabetes, through laboratory procedures. Prenatal testing for various types of genetic conditions also is increasingly common. Clinical laboratory technologists and technicians will be in demand to use and maintain the equipment needed for diagnosis and treatment."

Job prospects are considered best for those who complete an accredited program and earn professional certification.

Letters of support have also been collected from affiliated clinical laboratories and healthcare organizations to document the need for laboratory professionals in the workforce and advancement of education within the laboratory profession. National publications from the American Society for Clinical Pathology (ASCP) and American Society of Clinical Laboratory Scientists (ASCLS) have also documented the critical need for professionals within the laboratory and expansion of educational programs.

Admissions to the new program are estimated at 20-30 per admission cycle. In conjunction with our accredited 4-year medical laboratory science degree program, approximately 35-45 students will graduate each year at BGSU with a Bachelor of Science in Medical Laboratory Science degree.

2.2 Effect on required hours in degree/major/minor.

Students entering this new degree completion program will be expected to complete 122 credit hours to graduate from BGSU. Students will be transferring in course credit gained through the completion of an accredited Medical Laboratory Technician program, totalling up to 60-70 credits. Supportive courses that are required can be completed before entering into the proposed program, or completed simultaneously with required online MLT-MLS courses.

Courses in 2-year MLT programs are considered to have equivalency learning outcomes to BGSU MLS laboratory courses and credit will be given as appropriate. Students will have to matriculate from a NAACLS accredited MLT program with current MLT(ASCP) certification or be considered certification-eligible. Those applying to enter the MLT to MLS completion program will also need to meet requirements equivalent to those entering the current MLS program which include a GPA of 2.5 or greater and obtaining a grade of C or higher in all required courses.

2.3 Number of students affected and in what way.

Students in the current 4-year MLS program will not be affected by these changes. Students who have completed an accredited Medical Technician Program will be eligible to enter the online completion program in fall 2022.

2.4 Effect on elective hours of majors/minors.

Not applicable

2.5 If a degree/major/minor is to be eliminated, how will current students in the program be accommodated?

Not applicable

2.6 If requirements for matriculation from a pre-major program are to be added or modified, how will those changes affect student enrollment and progress toward graduation?

Not applicable

2.7 Is this a degree program whose normal time to degree is something other than four calendar years for a baccalaureate degree and two calendar years for an associate degree? If so, how many hours/years to obtain the degree?

As a degree completion program, this program will be able to be completed in as little as 3 semesters, with an expected average of 4 semesters required for completion.

C. IMPLICATIONS FOR EXISTING PROGRAMS *[For all proposals]:*

1. How will the proposed change affect the integrity of other programs to which it is related, including the demand for courses or degrees in other programs

1.1 in the department/school?

It is expected that the new degree will be attractive to laboratory professionals who currently hold an MLT certification looking to further their education and likely cause an increase in demand for courses taught by the medical laboratory science program.

1.2 in the college?

No effect

1.3 in other university departments/colleges?

The new program will be primarily taught within the medical laboratory sciences program. The Biological sciences may see a slight increase based on the required support courses students will need to complete before or during the program.

Of the 122 credit hours required to complete for graduation, 60-70 are to be completed at a community college or technical school with an NAACLS accredited Medical Laboratory Technician program, 35 are dictated by the major and program requirements, and the

remainder of credits are for the supportive requirements that may be taken at BGSU or surrounding colleges for transfer credit.

1.4 at other universities?

No effect.

2. What individuals in other departments/schools/colleges, if any, have been consulted about this proposal? *[attach correspondence where appropriate]*

3. What effect will the proposed change have on accreditation of this program or of associated programs in the college/university?

The current NAACLS accreditation held by the Medical Laboratory Science program will not be affected by the new degree program and will also cover the new proposed program. All program learning outcomes will be identical to the current MLS program outcomes.

4. What effect will the proposed change have on the ability of the department/school/college/university to meet goals for recruitment, retention, and diversity?

The new degree will be more attractive to students who hold current MLT(ASCP) certification and are interested in furthering their education. This will increase enrollment in the University, thereby adding new revenue stream. In the future, as enrollments in the program grow, we will request additional faculty line(s). All new and current faculty has support through the college with funds allocated for professional development and through the university through the Center for Faculty Excellence.

D. STAFFING IMPLICATIONS/QUALIFICATIONS

1. *For new programs, or if an existing degree/major/minor/area of specialization is to be modified:*

Are faculty and staff with expertise available now? ☒ yes ☐ no

If not, how will they be identified/recruited?

2. *For all proposals:* How will this change affect the allocation of faculty and staff in the department/school/college? **All current MLS faculty are qualified and amount of faculty will be sufficient to teach the proposed online sections for the degree completion program. We anticipate that with program growth and increase in the number of students enrolled, we will need additional faculty and support staff to teach additional sections.**

3. *For all proposals:* How will this change affect faculty work load? **No change in current faculty work load is anticipated at the start of the proposed program. After the first year, it is anticipated that additional faculty will be needed to accommodate increasing student enrollment.**

E. AVAILABILITY OF RESOURCES

1. *For all proposals:* Indicate any unique space requirements for new or modified curricula, and space likely to be released by the elimination or modification of existing curricula, and space likely to be released by the elimination or modification of existing curricula.

Program will be offered online and there will be no space requirements.

2. *For all proposals:* Indicate any new one-time or continuing costs for materials, equipment, services, or personnel directly associated with a new or modified curriculum. How will these costs be covered? Indicate any cost savings to be generated if an existing degree/major/minor/area of specialization is to be eliminated.

The program will be inexpensive for the department, college, and university to implement. Modest start-up costs associated with marketing, recruiting, and related matters will be required during the initiation of the program. The current faculty and staff are adequate to support the initial implementation of the program, however, due to the growth of the 4-year MLS program, an additional faculty line(s) may be required soon after implementation. Any increases in operating budget should be covered by the increased tuition and subsidy for these students.

3. *For all programs, or if an existing degree/major/minor/area of specialization to be modified:* Indicate any unique library, computer, or instructional media resources that will be needed for new or modified curricula. Are they already available?

Adequate library, computer, and instructional media resources are currently available for student use. Faculty will have access to the Center for Faculty Excellence and also Professional Development funds through the College of Health and Human Services.

F. TIMETABLE FOR IMPLEMENTATION *[For all proposals]*

1. Provide a detailed timetable for events that will occur as the proposed program change is accomplished (e.g. addition or elimination of courses, hiring of faculty).

Initially, the new degree program can be implemented without the addition of new courses or resources. After the first year, it is anticipated that additional faculty will be needed to instruct the increased number of sections required for the program.

G. OTHER INFORMATION

1. Provide other information that may be helpful in the review process, as appropriate.

See attachments for New online degree check sheet, current MLS degree check sheet, and MLT to MLS Degree Pathway document.

Total Hours Needed for Graduation: 122

BG PERSPECTIVE (BGP) REQUIREMENTS:

Course _____ Credits _____
Must complete at least 1 course in each of the following:

English Composition and Oral Communication

Quantitative Literacy

Must complete at least 2 courses in each of the following:
Humanities and the Arts

Natural Sciences - at least one Lab Science required

Social and Behavioral Sciences

Complete total required BGP credit hours by selecting
courses from any of the above categories:

UNIVERSITY REQUIREMENTS

Note: Designated courses in the Humanities and the Arts, and
the Social and Behavioral Sciences domains may be used to
fulfill both a BGP requirement and one of the following
university requirements:

Cultural Diversity in the U.S. _____

International Perspective _____

Composition Requirement:
____ WRIT 1120 Research Writing _____

Total BGP Credits: Must be at least 36

Previous MLT Program:
Associate Degree: yes _____ no _____
Associate degree field of study: _____

MLT(ASCP)CM certification number: _____

Accepted at BGSU: yes _____ no _____

SUPPORTIVE REQUIREMENTS * (43-45 hours)

Grade of "C" or better required

- 4 _____ BIOL 2040: Concepts in Biology I
- 4 _____ BIOL 2050: Concepts in Biology II
- 4 _____ BIOL 3140 & 3150: Microbiology for Health Professions & Lab
- 4 _____ BIOL 3320: Anatomy and Physiology II
- 4 _____ BIOL 3500: General Genetics
- 5 _____ CHEM 1230 & 1240: General Chemistry I +
- 5 _____ CHEM 1270 & 1280: General Chemistry II
- 4-5 _____ CHEM 3060: Basic Organic Chemistry OR
CHEM 3410: Organic Chemistry
- 4-5 _____ CHEM 3080 & 3090: Basic Biochemistry & Lab OR
CHEM 3440 & 3460: Organic Chemistry & Lab
- 3 _____ MATH 1150: Introduction to Statistics OR
STAT 2000: Using Statistics
- 2 _____ MLS 2010: Orientation to Medical Laboratory Science

* = or equivalent previous education - see program advisor

CORE PROGRAM REQUIRED COURSES (36 hours)

Grade of "C" or better required

- 3 _____ AHS 3568: Transcultural Health Care
- 3 _____ MLS 4080: Molecular Diagnostics
- 3 _____ MLS 4110: Diagnostic Immunology I
- 4 _____ MLS 4130: Immunohematology I
- 3 _____ MLS 4210: Hematology I
- 2 _____ MLS 4230: Hematology II
- 3 _____ MLS 4300: Diagnostic Microbiology I
- 3 _____ MLS 4310: Diagnostic Microbiology II
- 1 _____ MLS 4360: Clinical Virology
- 4 _____ MLS 4410: Clinical Chemistry I
- 2 _____ MLS 4510: Analysis of Body Fluid
- 1 _____ MLS 4650: Laboratory Management and Education
- 1 _____ MLS 4800: Clinical Research
- 3 _____ MLS 4910: Clinical Studies

MLT courses/electives (to reach a total of 122 hours)

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

+ Prerequisite for CHEM 1230/1240:
MATH 1220 or MATH 1230 or MATH 1260 or MATH 1280 or MATH 1310 or
MATH 1340 or math placement score of 41 or higher.

Students pursuing the online option for the Bachelor of Science in Medical Laboratory Science (BS-MLS) will earn the same degree as those students enrolled in the existing face-to-face BS-MLS degree. This 100% online degree completion program option will allow graduates of Associate of Science in Medical Laboratory Technician programs accredited by the National Accrediting Agency for Clinical Laboratory Sciences to gain the education necessary to become Medical Laboratory Scientists. While it is the same degree, the 100% online option is limited to associate degree holders as described above.

BG PERSPECTIVE (BGP) REQUIREMENTS:

Course _____ Credits _____

Must complete at least 1 course in each of the following:

English Composition and Oral Communication

Quantitative Literacy

Must complete at least 2 courses in each of the following:

Humanities and the Arts

Natural Sciences - at least one Lab Science required

Social and Behavioral Sciences

Complete total required BGP credit hours by selecting courses from any of the above categories:

UNIVERSITY REQUIREMENTS

Note: Designated courses in the Humanities and the Arts, and the Social and Behavioral Sciences domains may be used to fulfill both a BGP requirement and one of the following university requirements:

Cultural Diversity in the U.S. _____

International Perspective _____

Composition Requirement:

_____ WRIT 1120 Research Writing _____

Total BGP Credits: Must be at least 36

COMPUTATION AND MATH (2 COURSES)

3 _____ MATH 1150 or STAT 2000

Grade of "C" or better required in Math

+ Prerequisite for CHEM 1230/1240:

MATH 1220 or MATH 1230 or MATH 1260 or MATH 1280 or MATH 1310 or MATH 1340 or math placement score of 41 or higher.

SUPPORTIVE REQUIREMENTS (38-40 hours)

Grade of "C" or better required

- 4 _____ BIOL 2040: Concepts in Biology I
- 4 _____ BIOL 2050: Concepts in Biology II
- 4 _____ BIOL 3140/3150: Microbiology for Health Professions
- 4 _____ BIOL 3320: Anatomy and Physiology II
- 4 _____ BIOL 3500: General Genetics
- 5 _____ CHEM 1230/1240: General Chemistry I +
- 5 _____ CHEM 1270 & 1280 General Chemistry II
- 4-5 _____ CHEM 3060: Organic Chemistry or
- CHEM 3410: Organic Chemistry
- 4-5 _____ CHEM 3080 & 3090: BioChemistry or
- CHEM 3440 & 3460: Org Chem & Lab

CORE PROGRAM REQUIRED COURSES (56-58 hours)

Grade of "C" or better required

- 3 _____ AHS 3568: Transcultural Health Care
- 2 _____ MLS 2010: Orientation to Medical Laboratory Science
- 3 _____ MLS 4080: Molecular Diagnostics
- 4 _____ MLS 4110/4120: Diagnostic Immunology I
- 4 _____ MLS 4130: Immunohematology I
- 2 _____ MLS 4140: Immunohematology I Lab
- 3 _____ MLS 4210: Hematology I
- 2 _____ MLS 4220: Hematology I Lab
- 2 _____ MLS 4230: Hematology II
- 3 _____ MLS 4300: Diagnostic Microbiology I
- 3 _____ MLS 4310: Diagnostic Microbiology II
- 2 _____ MLS 4320: Diagnostic Microbiology II Lab
- 1 _____ MLS 4360: Clinical Virology
- 4 _____ MLS 4410: Clinical Chemistry I
- 2 _____ MLS 4420: Clinical Chemistry I Lab
- 2 _____ MLS 4510: Analysis of Body Fluid
- 1 _____ MLS 4650: Laboratory Management and Education
- 1-3 _____ MLS 4800: Clinical Research
- 12 _____ MLS 4920: Clinical Practicum

ELECTIVES (If needed to reach 122 hours)

Students who enter the degree program as freshman can complete this curriculum in 8 semesters, plus one summer term between the junior and senior year. The senior year is thus comprised of 12 months of full-time study which includes a clinical practicum.

Students transferring from another university or from another degree program and/or requiring developmental math may require more time in order to complete the prerequisite "required courses" portion.

Students transferring into this program from another school who have earned previous credit in basic medical laboratory science courses not listed on this checksheet, including MLS 2220 and MLS 2510, should consult with the department.

Application for professional portion (end of Junior year) date applied:
_____ to Department Chair.

Admission: _____ Conditional Admission: _____

Alternate Admission: _____ Not admitted: _____

GPA after Junior Year must be 2.5 to apply for Clinical Laboratory Studies.

MLT to MLS Degree Pathway

Degree Completion Requirements

The program can be completed in as little as four semesters or you may choose to complete the program at a slower pace. The online MLT to MLS program comprises 30 credit hours. You will be awarded transfer credit for previous college courses that match the BG Perspective (General Education) courses and support course requirements. Any BGP or required core courses not completed prior to admission into the MLT-MLS program must be completed. A total of 122 credit hours are required to graduate from Bowling Green State University with a Bachelor of Science in Medical Laboratory Science. A student must remain in good academic standing with at least a GPA of 2.5 to graduate from the MLT to MLS program. A grade of “C” or greater must be earned in all MLT to MLS core and supportive classes for graduation.

BGSU Online MLT-MLS Courses

MLS 4080- Molecular Diagnostics (3)
MLS 4110 – Diagnostic Immunology I (3)
MLS 4130- Immunohematology I (4)
MLS 4210- Hematology I (3)
MLS 4230- Hematology II (2)
MLS 4300- Diagnostic Microbiology I (3)
MLS 4310- Diagnostic Microbiology II (3)
MLS 4360- Clinical Virology (1)
MLS 4410- Clinical Chemistry I (4)
MLS 4510- Analysis of Body Fluid (2)
MLS 4650- Laboratory Management and Education (1)
MLS 4800- Clinical Research (1)
MLS 4910- Clinical Studies (1-3)

Support (Required) Courses include:

AHS 3568- Transcultural Healthcare (3)
Microbiology course (with lab) equivalent to BIOL 3140/3150 or BIOL3130
BIOL 3500 General Genetics (4) or equivalent
Chemistry courses:

- Chemistry courses taken as pre-requisites for MLT program will be evaluated for equivalency at BGSU.

Application Requirements

- Graduation from a NAACLS accredited Medical Laboratory Technician with an Associate degree in Medical Laboratory Technician or equivalent.
- Current certification as MLT (ASCP)^{CM} or must be board eligible and successfully pass the American Society for Clinical Pathology Board of Certification (ASCP-BOC) before beginning MLS course work (or see program advisor).
- Submission of transcripts from all previously attended colleges or technical schools
- A cumulative GPA of at least a 2.5 in all previous college or technical work.
- Complete the Online Application for admission to BGSU.
- Once we receive your application and all required documents, an admission decision will be made. If admitted, your admission packet will include an official transfer credit evaluation.

- All applicants will be considered regardless of race, color, religion, ancestry, ethnicity, gender/transgender status, sexual orientation, age, national origin, marital status, disability, military and/or veteran status, genetic information or other characteristics protected by the law.

Student Progression through the MLT to MLS pathway at BGSU:

- Maintain certification as MLT(ASCP)^{CM}
- A cumulative GPA of 2.5 must be maintained.
- A grade of “C” or better must be obtained in all core MLS courses.
- Any core MLS course that does not have a grade of “C” or better must be retaken to earn a grade of “C” or better.
- Clinical Research (MLS 4800) and Clinical Studies (MLS 4910) must be taken last in the sequence of MLS courses.
- All general education or supportive courses can be taken in conjunction with the MLS core courses, unless the course is a prerequisite requirement for the MLS core course.
- A student may stop out of the MLT to MLS program for a period of time for various reasons. However, the student should notify the MLS Program Director of the need to stop out. A student is able to return to the MLT to MLS Program at any time through a readmission process. If the curriculum has changed, the student will abide by the new curriculum pattern at time of readmission. If a student does not return within 3 years, additional review courses may be recommended to the student as a requirement to site for the BOC upon graduation.

Sample Graduation Plan (tentative plan)

Semester 1		Semester 2	
Class	Credits	Class	Credits
MLS 4510	2	MLS 4210	3
MLS 4360	1	MLS 4110	3
MLS 4080	3	MLS 4300	3
Support Course	3-4	Support Course	3-4
		Support Course	3-4
Total Credits		Total Credits	
Semester 3		Semester 4	
Class	Credits	Class	Credits
MLS 4130	4	MLS 4650	1
MLS 4230	2	MLS 4800	1
MLS 4310	3	MLS 4410	4
Support Course	3-4	MLS 4910	3
Total Credits		Total Credits	



An evaluation of employer demand for graduates from the proposed online bachelor's-level medical laboratory science program in both national and state markets, and student demand for similar programs.

Analysis Includes:

- Job Posting Trends
- Top Skills
- Experience Levels
- Education Levels
- Degree Completion Trends

Options for Next Steps

Following this analysis, the requesting partner can:

- Choose to discontinue the research, if the leadership is able to make a decision based on this analysis and other institutional research.
- Continue the analysis. A final report of the continued research will address credential design and curricular recommendations.

Despite Increasing Employer and Student Demand, Challenging Competitive Landscapes May Limit Program Potential

Preliminary Program Outlook

Employer demand trends indicate a moderate need for bachelor's-level medical laboratory science professionals. National and state employers advertised a moderate number of relevant postings in the last 12 months (i.e., 114,609 and 3,395 job postings, respectively). Additionally, national and state employer demand for relevant professionals outpaced the growth in demand for all bachelor's-level professionals between August 2018 to July 2021 (i.e., an average 2.04 percent monthly vs 1.26 percent monthly and an average 2.29 percent monthly vs 1.19 percent monthly, respectively). Administrators should also note, employment for the relevant occupations "Clinical Laboratory Technologists and Technicians" and "Medical Scientists" is projected to increase faster than average nationally and in Ohio. These trends suggest a favorable labor market for program graduates.

Growing degree completions suggest increased student interest in relevant programs. Between the 2014-2015 and 2018-2019 academic years, the number of national and state degree completions increased, outpacing the growth in the number of institutions reporting relevant completions (i.e., 2.81 percent vs 0.24 percent and 17.83 percent vs 1.56 percent, respectively). This indicates increased student demand.

State market concentration may limit program potential. In the 2018-2019 academic year, Cleveland State University and the University of Cincinnati captured over 80 percent of the statewide market, indicating high competition due to market concentration. Additionally, the significant difference between the mean and median (i.e., 27.00 mean compared to the 2.00 median) suggests that large programs benefited disproportionately from the increased student demand. These trends suggest the proposed online program may struggle to capture student demand because these two institutions captured a disproportionate share of reported completions.

Established statewide programs may limit the potential of a new online program. In the 2018-19 academic year, two institutions in Ohio reported distance-delivery completions. In particular, the University of Cincinnati, which offers a distance delivery version of the degree, captured 34.42 percent of the statewide market and reported the second most completions for relevant programs in the state. The proposed online program may struggle to capture online student demand when competing against large established programs that already have an online presence.

Research Limitations

As institutions self-report data to the National Center for Education Statistics (NCES), some comparable programs may report completions for a bachelor's-level medical laboratory science program under an alternate CIP code and may not be included in the analysis.

National Analysis of Job Postings for Bachelor's-Level Medical Laboratory Science Professionals

National employers advertised a moderate number of relevant job postings in the last 12 months (i.e., 114,609 job postings). Relevant employer demand growth outpaced employer demand growth for all bachelor's-level professionals from August 2018 to July 2021 (i.e., an average 2.04 percent per month compared to 1.26 percent, respectively). This suggests a favorable labor market for program graduates.

+2.04%

21,177 job postings

114,609 job postings

Average Monthly Demand Growth

August 2018 - July 2021,
National Data

- Average monthly growth of 400 job postings.
- During the same period, demand for all bachelor's-level professionals grew 1.26 percent.

Average Monthly Demand

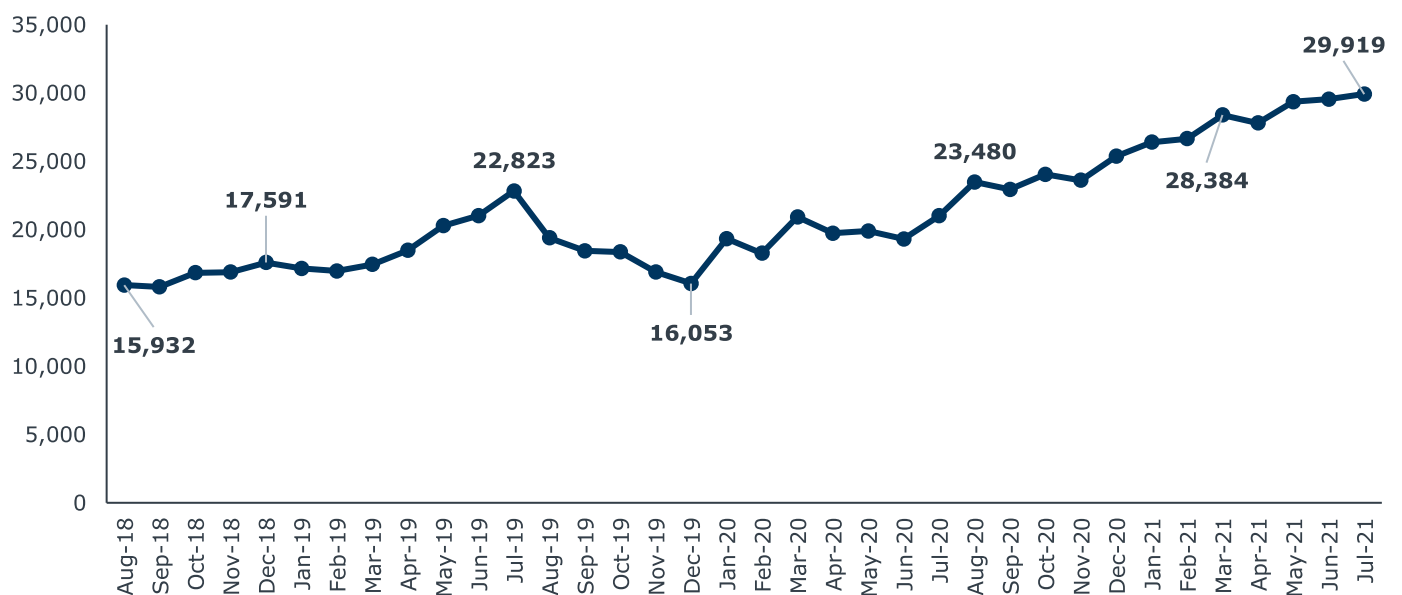
August 2018 - July 2021,
National Data

Relevant Jobs Posted in the Past Year

August 2020 - July 2021,
National Data

Job Postings for Bachelor's-Level Medical Laboratory Science Professionals over Time

August 2018 - July 2021, National Data



Analysis of Job Postings for Bachelor's-Level Medical Laboratory Science Professionals in Ohio

Similar to national trends, state employers advertised a moderate number of relevant job postings in the last 12 months (i.e., 3,395 job postings). Relevant state demand increased an average 2.29 percent monthly from August 2018 to July 2021, outpacing state employer demand growth for all bachelor's-level professionals (i.e., 1.19 percent). These trends suggest program graduates will likely enter a labor market with sufficient employment opportunities.

+2.29%

600 job postings

3,395 job postings

Average Monthly Demand Growth

August 2018 - July 2021,
State Data

- Average monthly growth of nine postings.
- During the same period, demand for all bachelor's-level professionals grew 1.19 percent.

Average Monthly Demand

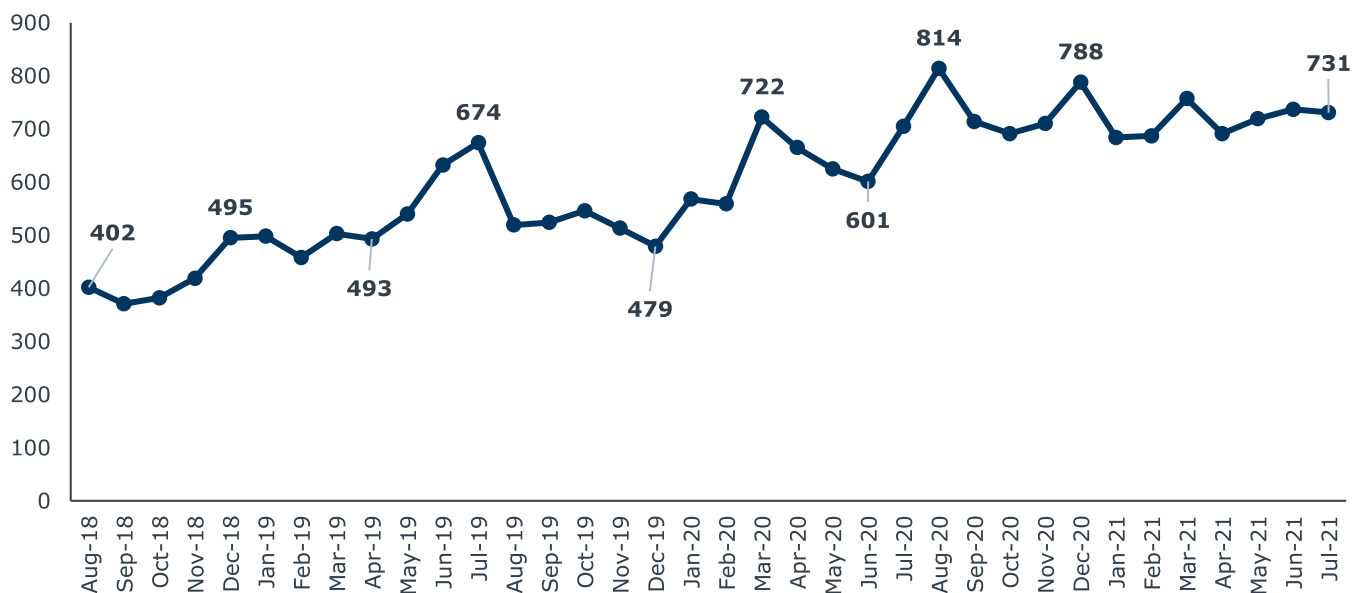
August 2018 - July 2021,
State Data

Relevant Jobs Posted in the Past Year

August 2020 - July 2021,
State Data

Job Postings for Bachelor's-Level Medical Laboratory Science Professionals over Time

August 2018 - July 2021, State Data



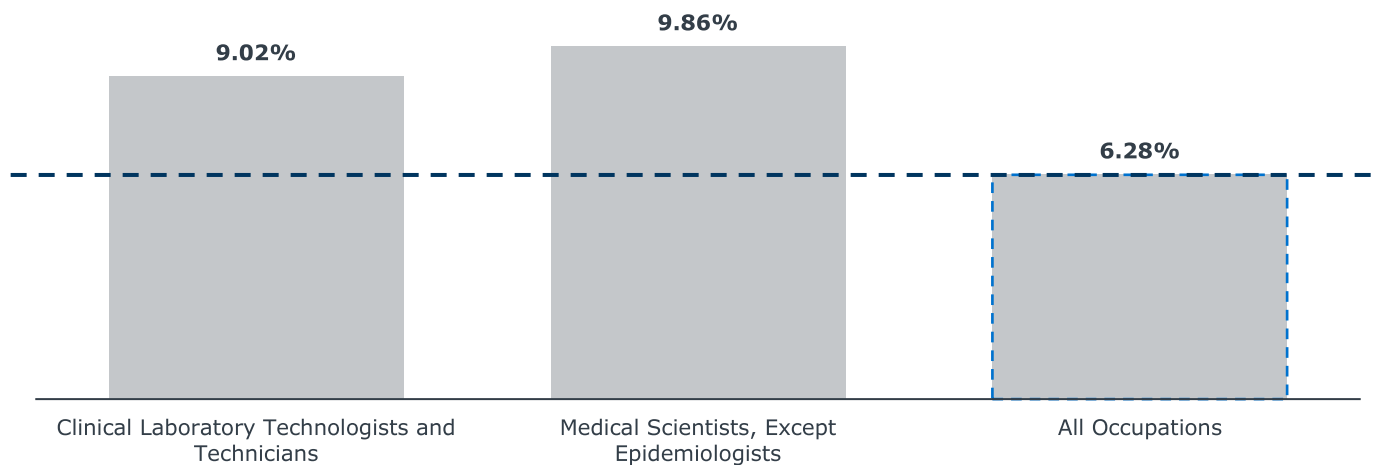
Analysis of Employment for Medical Laboratory Science Professionals

Employment for “Clinical Laboratory Technologists and Technicians” and “Medical Scientists” (i.e., the most relevant occupations for medical laboratory science professionals) is projected to increase faster than the average projected growth in employment both nationally and in Ohio. This indicates employment opportunities for graduates will likely increase in coming years. The [BLS](#) credits the projected growth in employment opportunities for “Clinical Laboratory Technologists and Technicians” to the aging population’s need for medical testing for common diseases such as cancer and type 2 diabetes.¹

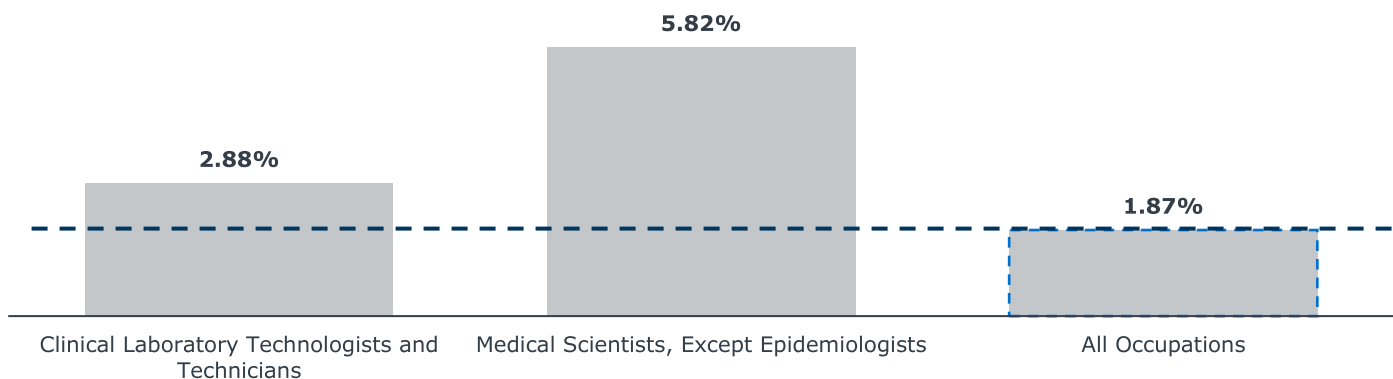
Administrators should note, projections for the occupations “Clinical Laboratory Technologists and Technicians” and “Medical Scientists” consider jobs at all degree levels and not just bachelor’s-level positions.

Projected Employment in Top Occupations²

2021-2031, National Data



2021-2031, State Data



— — — The dashed blue line represents the projected employment growth across all occupations from 2021 to 2031.

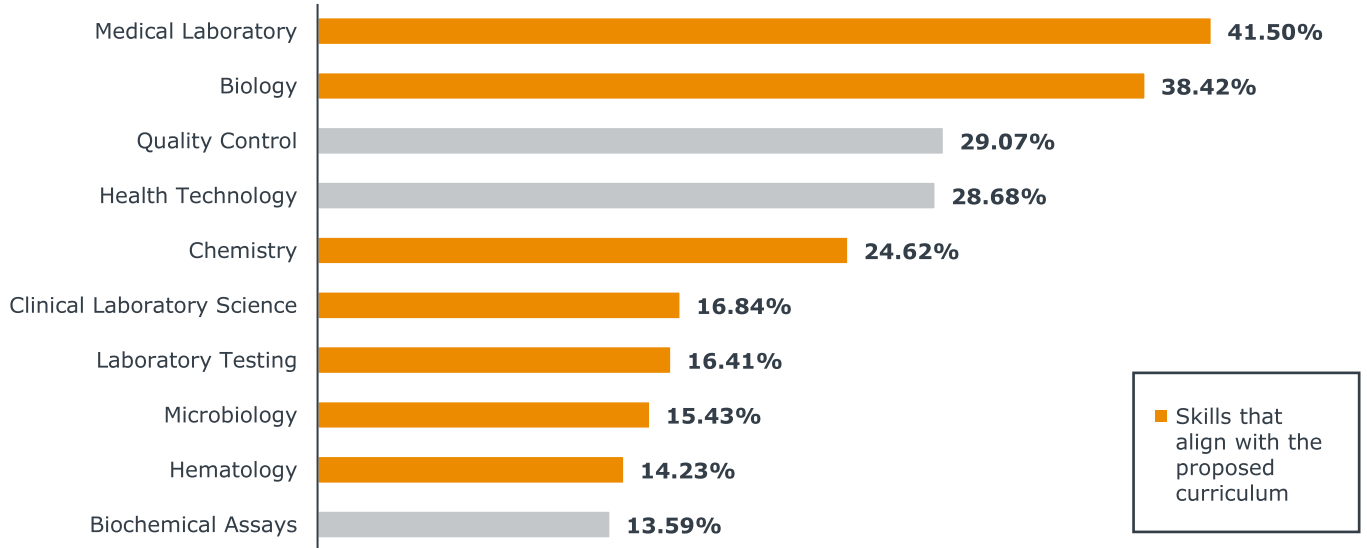
1) Information published by the [Bureau of Labor Statistics](#).

2) Top occupations refer to the occupations in which employers most often seek relevant professionals.

Top Skills Requested of Bachelor's-Level Medical Laboratory Science Applicants

August 2020 - July 2021, National Data

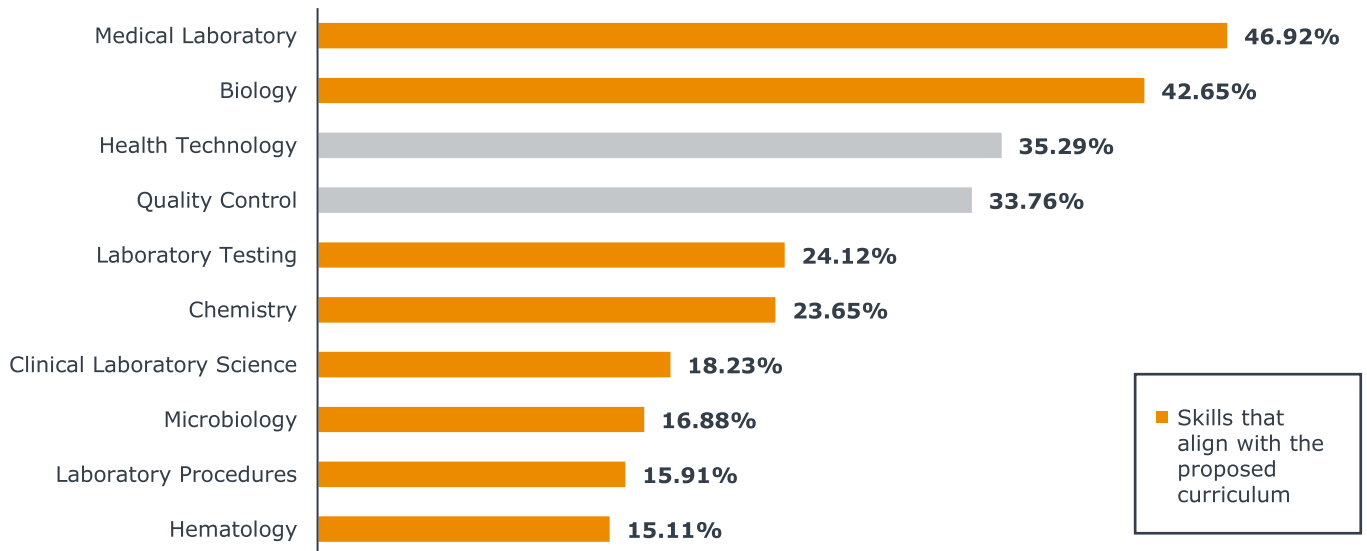
n = 114,609 job postings



Top Skills Requested of Bachelor's-Level Medical Laboratory Science Applicants

August 2020 - July 2021, State Data

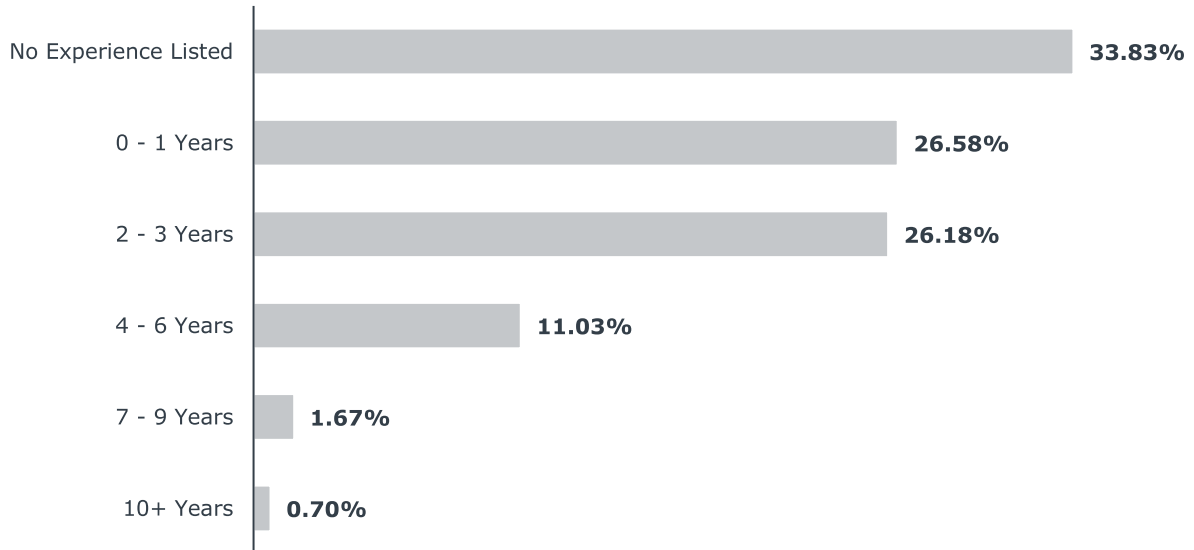
n = 3,395 job postings



Experience Levels Requested of Bachelor's-Level Medical Laboratory Science Applicants

August 2020 - July 2021, National Data

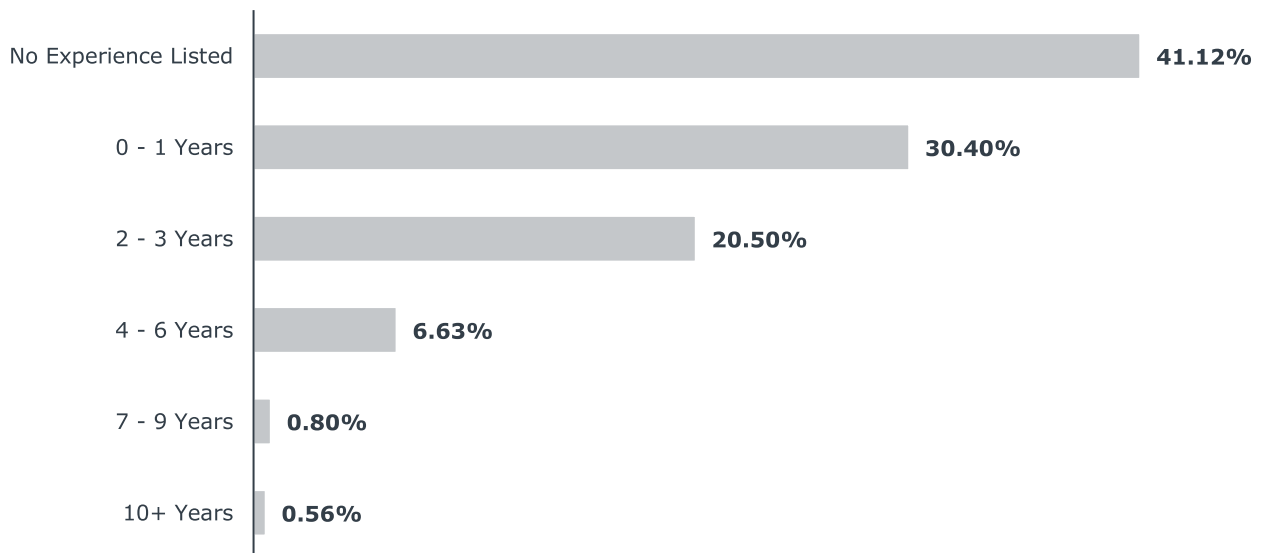
n = 114,609 job postings



Experience Levels Requested of Bachelor's-Level Medical Laboratory Science Applicants

August 2020 - July 2021, State Data

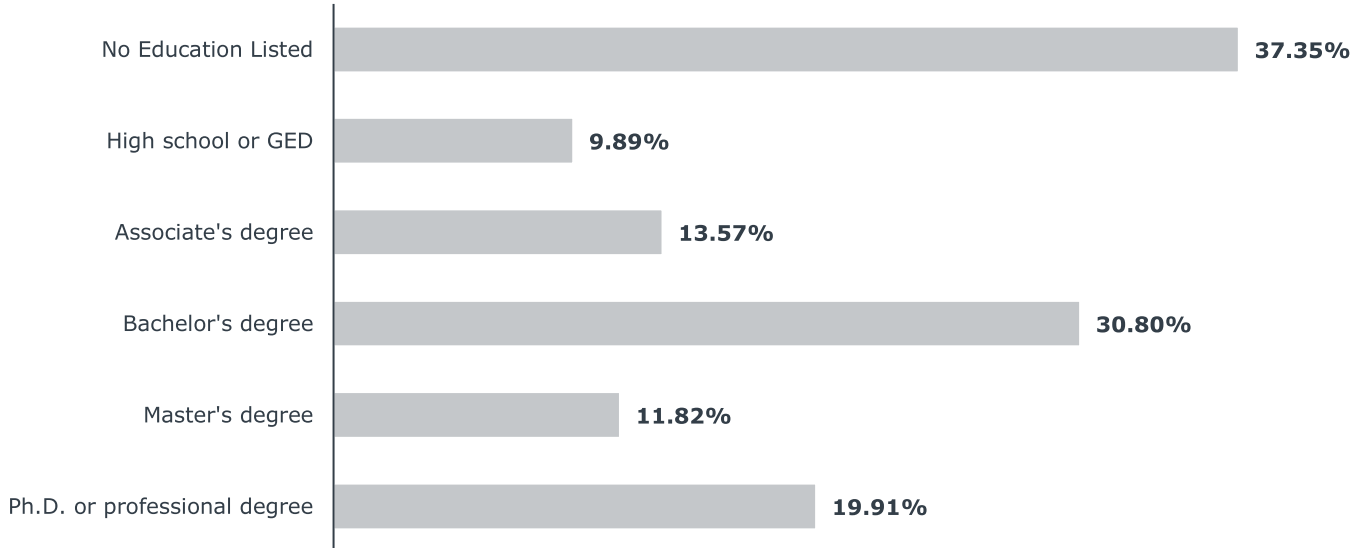
n = 3,395 job postings



Education Levels Requested of Medical Laboratory Science Applicants

August 2020 - July 2021, National Data

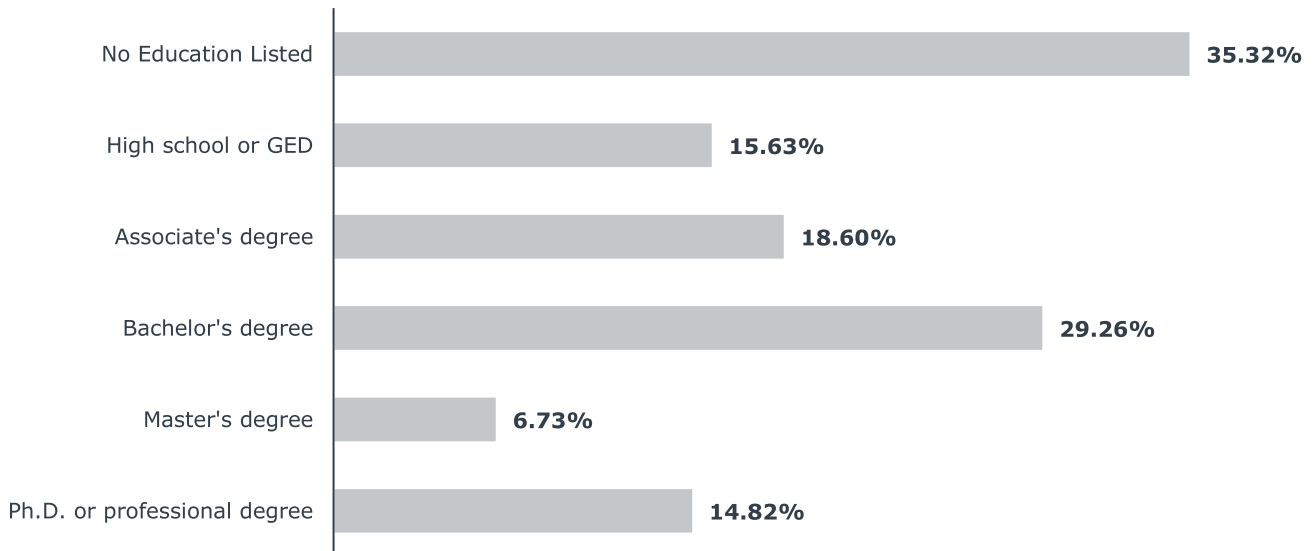
n = 372,067 job postings¹



Education Levels Requested of Medical Laboratory Science Applicants

August 2020 - July 2021, State Data

n = 11,604 job postings¹



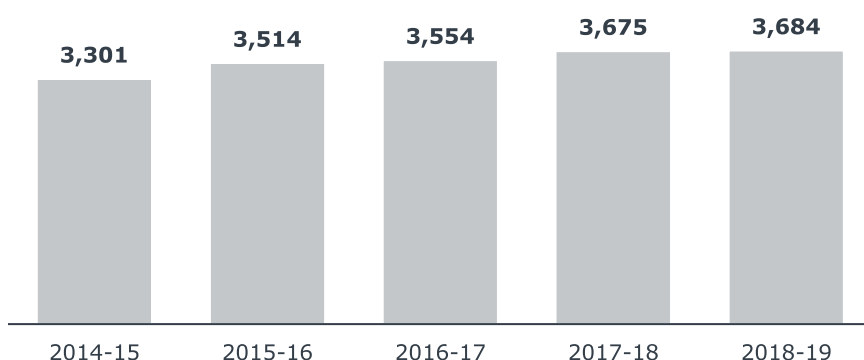
1) The n-value reflects the number of job postings requesting any degree level medical laboratory science applicants rather than the number of postings requesting bachelor's-level medical laboratory science applicants.

National Analysis of Relevant CIP Codes¹ for Bachelor's-Level Completions

Relevant degree completions increased an average 2.81 percent annually between the 2014-2015 and 2018-2019 academic years. During the analyzed period, the number of institutions reporting relevant completions experienced a net growth of three institutions. This indicates growth in student demand is greater than growth in competition, suggesting a favorable competitive landscape. However, the low median number of completions per reporting institution (i.e., 4.00 completions) suggests majority of programs enroll a small number of students. Therefore, Bowling Green State University should expect smaller class sizes relative to larger competitors. Administrators should note, only 8.75 percent of national institutions reported that they offer their bachelor's-level medical laboratory science programs in a 100 percent distance-delivery format in the 2018-2019 academic year.

Completions Reported over Time

2014-2015 to 2018-2019 Academic Years, National Data



+2.81%

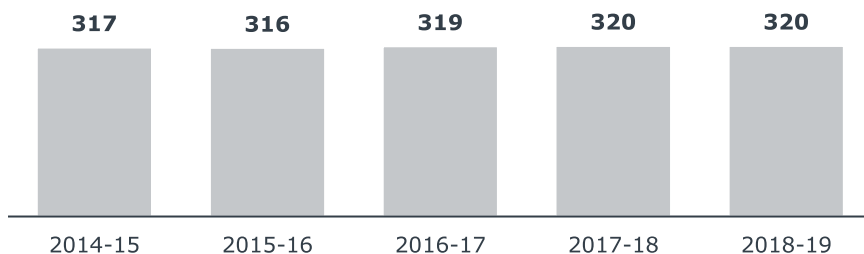
Average Annual Completions Growth

2014-2015 to 2018-2019 Academic Years, National Data

- Average annual 0.24 percent growth in number of institutions in the same period.

Institutions Reporting Completions over Time

2014-2015 to 2018-2019 Academic Years, National Data



8.75%

Institutions Reporting Completions with a 100% Distance-Delivery Option

2018-2019 Academic Year, National Data

11.51

Mean Completions per Institution Reporting

2018-2019 Academic Year, National Data

- An increase from the 10.41 mean completions reported in the 2014-2015 academic year.

4.00

Median Completions per Institution Reporting

2018-2019 Academic Year, National Data

- An increase from the three median completions reported in the 2014-2015 academic year.

1) The aggregated completions data for CIP codes '51.1005 ("Clinical Laboratory Science/Medical Technology/Technologist")', '51.1004 ("Clinical/Medical Laboratory Technician")' and 51.1099 ("Clinical/Medical Laboratory Science and Allied Professions, Other") is offered as an indicator of student trends because Medical Laboratory Science is not classified as a specific CIP code in NCES data.

National Analysis of Relevant CIP Codes¹ for Bachelor's-Level Completions

Between the 2014-2015 and 2018-2019 academic years, six of top 10 institutions increased their market share and their number of reported completions. Additionally, Cleveland State University went from not reporting completions in the 2014-2015 academic year to becoming the market leader in the 2018-2019 academic year with 210 reported completions. This demonstrates potential for new programs to enter the market and capture student demand. Although there are no dominant market leaders, the low median number of completions per reporting institution (i.e., 4.00 completions) suggests most programs tend to be small. Since most relevant programs report fewer than 10 completions, administrators should anticipate the proposed program may struggle to capture a high number of students. Two of the top 10 national institutions are in Ohio (i.e., Cleveland State University and the University of Cincinnati), while another top ten program is in the neighboring state of Michigan (i.e., Michigan State University). This signals significant regional competition and may limit the potential growth opportunity of the proposed program.

Administrators should note, three of the top 10 institutions reported distance-delivery completions, indicating the top national competitors offer students flexible program formats.

Institutions with Most Reported Completions

2014-2015 to 2018-2019 Academic Years, National Data

Institution	Reported Completions, 2014-2015 Academic Year	Market Share, 2014-2015 Academic Year	Reported Completions, 2018-2019 Academic Year	Market Share, 2018-2019 Academic Year
Cleveland State University	Not Offered	Not Offered	210	5.70%
Grand Canyon University	143	4.33%	176	4.78%
University of Cincinnati-Main Campus	163	4.94%	158	4.29%
University of Wisconsin-Milwaukee	64	1.94%	103	2.80%
Weber State University	88	2.67%	103	2.80%
Michigan State University	87	2.64%	74	2.01%
Austin Peay State University	34	1.03%	62	1.68%
The University of Texas Medical Branch at Galveston	63	1.91%	55	1.49%
California State University-Dominguez Hills	35	1.06%	50	1.36%
Oregon Institute of Technology	49	1.48%	46	1.25%



Institutions offering a distance-delivery modality in the 2018-2019 academic year.

1) The aggregated completions data for CIP codes '51.1005 ("Clinical Laboratory Science/Medical Technology/Technologist")', '51.1004 ("Clinical/Medical Laboratory Technician")' and 51.1099 ("Clinical/Medical Laboratory Science and Allied Professions, Other") is offered as an indicator of student trends because Medical Laboratory Science is not classified as a specific CIP code in NCES data.

Analysis of Relevant CIP Codes¹ for Bachelor's-Level Completions in Ohio

Relevant completions increased on average 17.83 percent annually between the 2014-2015 and the 2018-2019 academic years. In the same period, the number of institutions reporting relevant completions increased by one institution. While this may suggest a favorable competitive landscape, the significant difference between the mean and median number of completions per reporting institution (i.e., 27.00 mean completions compared to two median completions, respectively) may suggest that a small group of large programs represent a disproportionate share of reported completions. This indicates the proposed program may struggle to capture student demand due to the presence of large competitors. However, Bowling Green State University could leverage their standing in the statewide market to mitigate risk and promote the proposed online program.

Completions Reported over Time

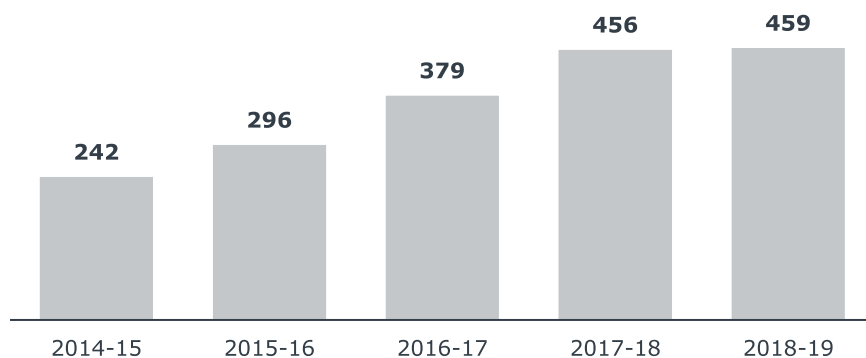
2014-2015 to 2018-2019 Academic Years, State Data

+17.83%

Average Annual Completions Growth

2014-2015 to 2018-2019 Academic Years, State Data

- Average annual 1.56 percent growth in number of institutions in the same period.



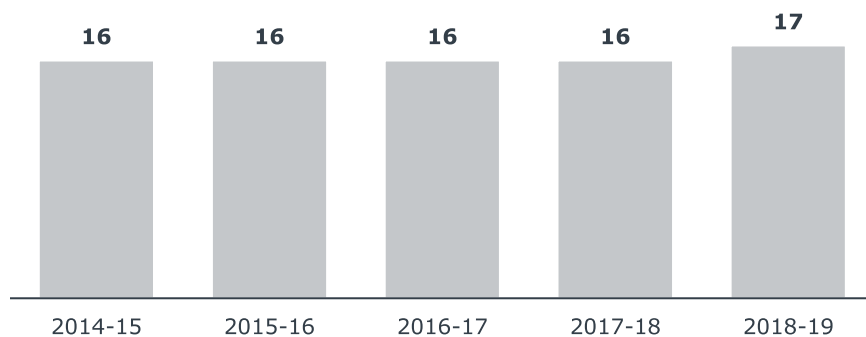
Institutions Reporting Completions over Time

2014-2015 to 2018-2019 Academic Years, State Data

11.76%

Institutions Reporting Completions with a 100% Distance-Delivery Option

2018-2019 Academic Year, State Data



27.00

Mean Completions per Institution Reporting

2018-2019 Academic Year, State Data

- An increase from the 15.12 mean completions reported in the 2014-2015 academic year.

2.00

Median Completions per Institution Reporting

2018-2019 Academic Year, State Data

- A decrease from the 3.50 median completions reported in the 2014-2015 academic year.

1) The aggregated completions data for CIP codes '51.1005 ("Clinical Laboratory Science/Medical Technology/Technologist")', '51.1004 ("Clinical/Medical Laboratory Technician")' and 51.1099 ("Clinical/Medical Laboratory Science and Allied Professions, Other") is offered as an indicator of student trends because Medical Laboratory Science is not classified as a specific CIP code in NCES data.

Analysis of Relevant CIP Codes¹ for Bachelor's-Level Completions in Ohio

Five of the top 10 institutions experienced an increase the number of reported completions, while three of the top 10 institutions saw an increase in market share. Cleveland State University and the University of Cincinnati captured over 80 percent of the statewide market, indicating market concentration. This suggests that new programs will likely struggle to capture student demand because these two institutions control a disproportionate share of the market. However, Bowling Green State University's existing program ranked fourth in the state market with 17 completions. Therefore, Bowling Green State University could leverage their existing position in the market to mitigate risk and promote the proposed online program.

Administrators should note, the University of Cincinnati is a large established program reporting the second most completions via a distance-delivery program option. This existing program may limit the potential growth for the proposed program and warrants caution in event of program launch.

Institutions with Most Reported Completions

2014-2015 to 2018-2019 Academic Years, State Data

Institution	Reported Completions, 2014-2015 Academic Year	Market Share, 2014-2015 Academic Year	Reported Completions, 2018-2019 Academic Year	Market Share, 2018-2019 Academic Year
Cleveland State University	Not Offered	Not Offered	210	45.75%
University of Cincinnati-Main Campus	163	67.36	158	34.42%
Ohio State University-Main Campus	24	9.92%	24	5.23%
Bowling Green State University-Main Campus	11	4.55%	17	3.70%
University of Toledo	10	4.13%	15	3.27%
Wright State University-Main Campus	7	2.89%	14	3.05%
Youngstown State University	2	0.83%	10	2.18%
Miami University-Oxford	9	3.72%	4	0.87%
Kent State University at Kent	5	2.07%	2	0.44%
Ohio Northern University	3	1.24%	2	0.44%



Institutions offering a distance-delivery modality in the 2018-2019 academic year.

1) The aggregated completions data for CIP codes '51.1005 ("Clinical Laboratory Science/Medical Technology/Technologist")', '51.1004 ("Clinical/Medical Laboratory Technician")' and 51.1099 ("Clinical/Medical Laboratory Science and Allied Professions, Other") is offered as an indicator of student trends because Medical Laboratory Science is not classified as a specific CIP code in NCES data.

Appendix: Research Parameters and Sources

Research Methodology

EAB's market insights research guides strategic programmatic decisions at partner institutions. The Market Insights Service combines qualitative and quantitative data to help administrators identify opportunities for new program development, assess job market trends, and align curriculum with employer and student demand.

Unless stated otherwise, this report includes data from online job postings from August 2018 – July 2021. To best estimate employer demand for bachelor's-level medical laboratory science professionals, the Forum analyzed job postings for bachelor's-level professionals with the relevant occupations (i.e., "Clinical Laboratory Technologists and Technicians" and "Medical Scientists Except Epidemiologists").

Definitions

"CIP" code refers to the Classification of Instructional Programming code.

"National," "nationally," and "nationwide" refer to the United States.

"State" and "statewide" refer to Ohio.

"Medical Scientists" refers to "Medical Scientists Except Epidemiologists."

Research Questions

The requesting partner asked:

- **What education level do employers most frequently request from relevant professionals?**
- **What experience level do employers most frequently request from program graduates?**
- How are similar programs structured (e.g., credential awarded, cost, required credits, duration)?
- How are similar programs delivered (e.g., modality, schedule)?
- What experiential or practical learning do similar programs offer (e.g., clinical components, capstone requirements)?
- What courses are included in the curricula of similar programs?
- What accreditation do similar programs advertise?

Bolded questions were addressed within this analysis; remaining questions would be addressed if partner pursues continued research.

Project Sources

The Forum consulted the following sources for this report:

- EAB's internal and online research libraries
- Emsi Analyst, described below
- U.S. Bureau of Labor Statistics
- U.S. National Center for Education Statistics (NCES)

Labor Market Intelligence Partner: Emsi

This report includes data made available through EAB's partnership with Emsi (formerly Economic Modeling Specialists International), a labor market analytics firm serving higher education, economic development, and industry leaders in the U.S., Canada and the United Kingdom.

Emsi curates and maintains the most comprehensive labor market data sets available for academic program planning, providing real-time job posting data, workforce and alumni outcomes data, and traditional government sources of data. Under this partnership, EAB may use Emsi's proprietary Analyst™ and Alumni Insight™ tools to answer partner questions about employer demand, the competitive landscape, in-demand skills, postings versus actual hires, and skills gaps between job postings and professionals in the workforce. The Emsi tools also provide EAB with in-depth access to unsuppressed, zip-code-level government data for occupations, industries, programs, and demographics. For more complete descriptions of the Emsi tools, visit:

- <http://www.economicmodeling.com/analyst/>
- <https://www.economicmodeling.com/alumni-insight/>

To learn more about Emsi and its software and services, please contact Bob Hieronymus, Vice President of Business Development at bob.hieronymus@economicmodeling.com or (208) 883-3500.



Washington DC | Richmond | Birmingham | Minneapolis | New York | Chicago

202-747-1000 | eab.com

Jacobs, Jeffrey A MT(ASCP), MBA

Operations Manager
Microbiology and Cytogenetics
Mercy Integrated Laboratories
2222 Cherry Street
Toledo, Ohio 43608
Phone: 419-251-3002

► **Richard Sipp**
HHS Special Assistant for Program and
Curriculum Development
Bowling Green State University
Bowling Green, OH 43403

Dear Mr. Sipp,

I am writing to you regarding the proposed growth to the Medical Laboratory Science Program at Bowling Green State University.

As the Operations Manager of Microbiology and Cytogenetics at Mercy's Core Laboratory in Toledo, OH, I believe the expansion will greatly benefit not only Northwest Ohio, but Heath Care as a whole. I see the full impact of staffing shortages daily. At our facility alone, we typically have multiple open positions at any given time. Our sister facilities in Toledo, Oregon, and rural sites such as Tiffin, Willard, and Defiance also experience the same staffing shortages. These shortages lead to increased expenses for our facilities.

According to the Bureau of Labor and Statistics, the job outlook is growing at 7%; which is faster than average. An additional 24,700 jobs will be needed by 2029. This number does include the projected number of Medical Laboratory Scientists retiring during that time frame. According to a recent article published in 2017 by Medical Lab Management, 40% of the current workforce is expected to retire with in the next ten years. This equates to over 135,000 employees leaving the workforce. MLS schools will need to expand their programs in order to meet these needs.

Also, about 70% of medical decisions are dependent upon laboratory test results, it is easy to see the important role Medical Laboratory Scientists have in healthcare. Over the years, the Medical Laboratory Scientists program at Bowling Green State University has a proven record of highly educated and motivated professionals entering the work force. The University has great opportunity to grow with this demand and continue its' legacy of having one of the best programs in the nation.

Jacobs, Jeffrey A MT(ASCP), MBA
Operations Manager

June 17, 2021

To Whom It May Concern:

It is my pleasure to write a letter in support of the expansion of the Bowling Green State University Medical Laboratory Science program.

The current need for medical laboratory professionals far surpasses the academic programs production. Medical laboratory professionals are responsible for up to 70 percent of a provider's accurate treatment and diagnosis. In rural, critical access hospitals, the need for MLS professionals is even greater. One vacancy puts strain on the entire organization. Staff are shuffled around to different shifts and are mandated to work overtime with less than minimum staffing.

These professionals are responsible for multiple disciplines of the laboratory and must completely understand every specimen collection and transport requirement. They are the gatekeepers of quality and responsible for ensuring accuracy in the samples they receive. They understand the importance in the small details and have the knowledge of what an adequate specimen is in order to provide correct results that are relied on to treat patients appropriately. They recognize one small error could lead to a life altering outcome.

Moderate and high complexity testing contributes to a great deal of the testing in many laboratory's activity panels. By regulation standards, moderate complexity testing requires a technical consultant to assess competency, establish or verify laboratory test performance specifications, create a quality control program to monitor ongoing test performance, among other things. In order to be qualified as a technical consultant one must possess a Bachelor's degree in chemical, physical, biological, or clinical laboratory science from an accredited institution. The obstacle we have at more rural locations is many professionals earned a two year degree; therefore, are not qualified to be a technical consultant. This causes many problems when annual competencies become due or new analyzers are brought into the facility.

In conclusion, I fully support the expansion and growth efforts of the BGSU MLS program. An increase of medical laboratory scientists to the community will great reduce the daily burdens we in the industry face.

Sincerely,

Handwritten signature of Ashley Niemeyer in cursive script.

Ashley Niemeyer, MBA, MLS(ASCP)^{cm}
Laboratory Supervisor
ProMedica Defiance Regional Hospital

BGSU Medical Lab Sciences Program Staff,

The role of a Medical Lab Scientist is important and crucial to quality, accurate and timely lab results. These provide nurses and doctors with key information on a variety of different health issues and gives us important insight on the prevention, diagnosis, treatment, and management of a patient's health. Decisions are made based on test results, often big decisions that wholly affect a patient's general health outcome. To continue this important role functioning properly, there is an increase in the demand for quality personnel to fill these roles

The need for medical laboratory professionals, medical laboratory technicians, medical laboratory scientists combined with high vacancy rates is causing clinical labs to reach crisis-level shortages. This past year, the COVID-19 pandemic created an even higher demand for these jobs, as COVID-19 lab testing ramped up and the race to find a vaccine became a priority.

Pandemic aside, lab shortages were prevalent before COVID arrived on the scene. As more of the population ages and develops certain health ailments, more testing and healthcare results are needed to help diagnose and treat these patients. That means the demand for lab services are increasing. With older generations needing more intensive lab and care, that means more laboratory professionals are needed to help run these tests and provide speedy results. Here at Mercy Defiance Health, we have been battling the position shortages for the last 5 years. We have had a position open with no permanent hire for over 2 years now.

The medical lab tech shortage is negatively affecting clinical laboratory settings and patient care. Due to the workforce shortage, the chances for getting a job as a medical laboratory professional are great; however, recruitment is a challenge. There is great competition even within the Mercy system to train and keep newly hired Laboratorians. It is challenging being a small rural hospital to compete with larger labs or more inciting cities. Also, the understanding from non-clinical, or non-lab Human Resources of the education and training requirements needed to work in the lab is minimal. Our shortages mean that my employees are suffering burnout as a result of current staff being required to cover the additional shifts. Less medical laboratory professionals being placed means extended work hours, double shifts and overtime. Even when you have quality control in place, you can't always prevent employee burnout, staff training schedules or scheduling issues. Traveling lab techs are recruited in order to help alleviate shortages. We have one traveling tech on our staff now. We are looking to hire two more so our facility can remain open for our Emergency services. This has been a challenge filling even the travel positions, since the number available for placement is limited. Our lab has been waiting for a travel tech for over 5 months now with no news on potential replacements in the near future.

It is a known fact that Med tech vacancy rates are outweighing the number of graduates in lab, including MLS and MLT graduates. More education avenues and collaboration can help with the demand and workload for medical lab techs today. We need to pay attention to the numbers and trends so we can assist and combat the increased med tech vacancies. There needs to be

more education opportunities and awareness for future students. Advisors and job fairs need to involve the MLS programs from high school on to increase the numbers of potential Laboratorians.

Thank you for your time.

Respectfully,

Brandy Wilson, MS (IAH), MT(ASCP)
Mercy Defiance Health
Laboratory Manager

To Whom it May Concern,

I am writing in support of the initiative by the Medical Laboratory Science Program at Bowling Green State University to extend their program. The need for Medical Laboratory Scientist has reached a critical level and will continue to grow in the upcoming years. The clinical laboratory profession is crucial to patient care in the hospital. Approximately 70% of all clinical decisions are based on laboratory results that would not be available without these professionals. The already low numbers of individuals in the field combined with the expected increase in retirements of those working currently will put the medical laboratories, and in turn the medical community in a very stressful place. We, as a profession and Healthcare industry, need to make increasing the number of medical laboratory scientists a priority. Failure to do this will have devastating consequences to our healthcare system. We at Mercy Health are in favor and will support to the best of our ability, Bowling Green State University in this endeavor.

Stephanie Damman, MLS (ASCP)

Clinical Education Coordinator

Mercy Health St. Vincent Medical Center