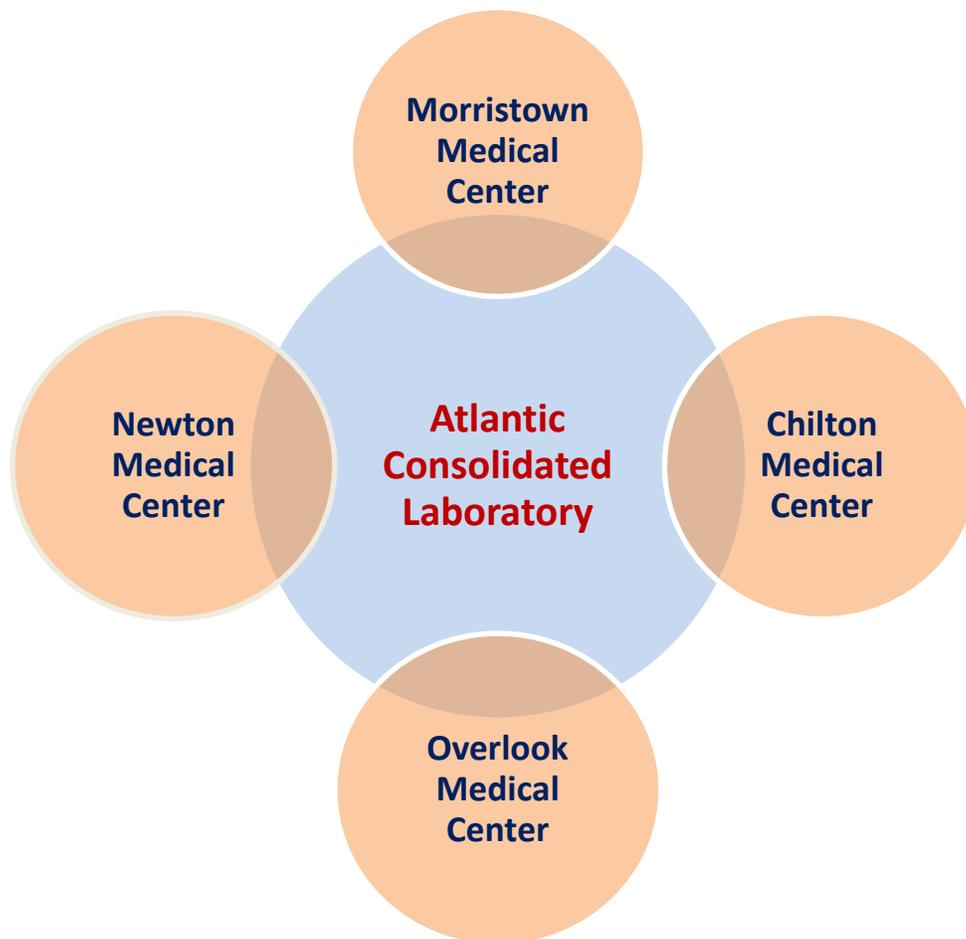




Atlantic
Health System

Medical Laboratory Science Program

***MLS Program Handbook & Student Information Guide
2015 - 2016***



Accredited by:

The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

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Rosemont, IL 60018

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Table of Contents	Page Number
Medical Laboratory Scientist Profession	4
Welcome to Atlantic Health System (AHS) /Vision/Mission Values	5-6
Department of Pathology and Laboratory Medicine: Mission/Vision/Values	7
History of the Medical Laboratory Science Program at AHS	8
Published Program Performance Outcomes	9
Medical Laboratory Science (MLS) Program: Mission/Goals/Objectives	10-12
MLS Career Entry Level Competencies	12-14
Accreditation	14
Professional Organizations	15-18
Curriculum Overview / MLS Program Admission Criteria	19-23
Essential Functions	23-24
Non-Discrimination Policy	25
Checklist Review Sheet for Applicants	25-26
MLS Program Expenses and Fees	27
Financial Assistance	27
Withdraw/Refund Policy	27
Additional Fees and Student Expenses	28-29
MLS Program Structure/Schedule	29-30
MLS Course Descriptions	31-32
Breakdown of Supervised Clinical Experience	33-35
Clinical Rotation Sites	36
Program Grading/Evaluation	36-38
Program Evaluation by Students	38
ASCP – BOC Examination	39
Academic Guidance/Counseling	39
Acceptable Conduct	39-40
Access Rights	40
Accommodation	40
Attendance Policy/Absence Policy	40-41
Cell Phone Usage	41
College Transcripts	41
Dismissal Policy	41
Academic Integrity	41-42
Zero Tolerance on Cheating Policy	42
Dress Code Policy	42-43
Grievance Policy	43
Identification Badges	43
Internet and Personal Electronic Device Use in the Laboratory	44
Lecture Series	44
Clinical Laboratory Rotation Overview of Rotation Schedule	44
Non-Academic Performance Criteria / Progressive Disciplinary Action	45
School Hours/Tardiness	45-46

Table of Contents	Page Number
Unscheduled Personal and Sick Days	46
Scheduled Vacations and Holidays	46
Snow Policy	46
The Family Education Rights and Privacy Act	47
The Right to Amend Educational Records	47
Prior Consent to Disclosure	47
Permanent Student File Contents	48
Program Evaluation and Assessment by Students	48
Student Employment Policies	49
Service Work Policy	49
Teach Out Plan	49
Student Graduation and Commencement	50
Parking	50
Health and Safety of Students and Faculty	50
Annual Program Performance: Outcome Measures	51
Major Program Faculty	52
References	53
MLS Advisory Board and the Relation to the Program	54

The Medical Laboratory Scientist Profession

The Medical Laboratory Scientist (MLS) is qualified by academic and applied science education to provide service and research in clinical laboratory science and related areas for rapidly changing healthcare delivery systems. MLS's perform, develop, evaluate, correlate and assure accuracy and validity of laboratory information; direct and supervise clinical laboratory resources and operations; and collaborate in the diagnosis and treatment of patients. The MLS has diverse knowledge and multi-level functions in the principles, methodologies and performance of assays; problem-solving; troubleshooting techniques; interpretation and evaluation of clinical procedures and results; statistical approaches to data evaluation; principles and practices of quality assurance/quality improvement; and continuous assessment of laboratory services for all major areas practiced in the contemporary clinical laboratory.

MLS's possess the skills necessary for financial operations, marketing, and talent management of the clinical laboratory. In addition, MLS's practice independently and collaboratively, being responsible for their own actions, as defined by the profession. They have the requisite knowledge and skills to educate laboratory professionals, other health care professionals, and the public in laboratory practice.

The ability to relate to people, a capacity for calm and reasoned judgment and a demonstration of commitment to the patient are essential qualities. Communications skills extend to consultative interactions with members of the healthcare team, external relations, customer service and patient education. In addition, Medical laboratory scientists demonstrate ethical and moral attitudes and principles that are necessary for gaining and maintaining the confidence of patients, professional associates, and the community.

Job Outlook

The Bureau of Labor Statistics of the U.S. Department of Labor projects that the employment of Medical Laboratory Scientists and Technicians is projected to grow 22 percent from 2012 to 2022, much faster than the average for all occupations. An increase in the aging population will lead to a greater need to diagnose medical conditions, such as cancer or Type II diabetes, through laboratory procedures.

REFERENCE:

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2014-15 Edition*, Medical and Clinical Laboratory Technologists and Technicians,
on the Internet at <http://www.bls.gov/ooh/healthcare/medical-and-clinical-laboratory-technologists-and-technicians.htm>

Career Opportunities

Careers in Medical Laboratory Science are available in hospital laboratories, forensic laboratories, reference laboratories, molecular diagnostics, public health, veterinary offices, physician offices, management, industry, pharmaceutical and cosmetics industries, medical sales, education, and research institutions.

Welcome to Atlantic Health System

Atlantic Health System (AHS), headquartered in Morristown, New Jersey, is one of the largest non-profit health care systems in New Jersey. It includes Morristown Medical Center in Morristown, NJ; Overlook Medical Center in Summit, NJ; Newton Medical Center in Newton, NJ; Chilton Medical Center in Pompton Plains, NJ; Atlantic Consolidated Laboratory in Morris Plains, NJ; Goryeb Children's Hospital in Morristown, NJ, as well as Atlantic Rehabilitation Institute, and Atlantic Home Care and Hospice. It also includes its subsidiary, Atlantic Ambulance Corporation.

Atlantic Health System comprises 1,599 licensed beds, more than 14,000 employees and more than 4,000 physicians. AHS is a clinical and academic affiliate of Jefferson Health School of Medicine; a Major Clinical Affiliate of Rutgers Cancer Institute of New Jersey; part of Atlantic Accountable Care Organization, one of the largest ACOs in the nation, and is a member of AllSpire Health Partners.

Atlantic Health System has been chosen for the past six consecutive years by FORTUNE® as one of the magazine's "100 Best Companies to Work For®." The organization has also been recognized four times by AARP as one of the "Best Employers for Workers over 50." Inside Jersey magazine partnered with Castle Connolly Medical Ltd. and ranked Morristown Medical Center as the No. 1 hospital in New Jersey and the No. 1 hospital for treatment of heart failure and coronary surgery in the state. The survey findings also establish Overlook as No.1 for the treatment of neurological disorders and stroke in NJ. In addition, Atlantic Health System is the official health care partner of the New York Jets and an official health care provider for the New Jersey Devils.

Atlantic Health System is a major health care provider to many patients in central/western New Jersey. The culture of Atlantic Health System is based on a vision, a mission and shared values.



Vision/Mission/Values

Organizational Vision

“Empowering our communities to be the healthiest in the nation”

Organizational Mission

***“Deliver high quality, safe, affordable patient care within a healing culture
Educate and engage all our human resources
Innovate through leadership.”***

Organizational Values

Professionalism: Deliver exceptional service, build a positive team spirit.

Respect: Treat others as they would like to be treated.

Involvement: Share responsibility for healing with physicians, peers, patients, and families.

Dignity: Be compassionate, empathetic, and supportive.

Excellence: Pursue greatness with passion and commitment

P- R- I -D- E



Department of Pathology and Laboratory Medicine

In 2014, Atlantic Health System Clinical Laboratories performed over 5,000,000 in vitro diagnostic assays. In forecasting the next several years, the growth in current business and new business development will exponentially increase due to expansion with new affiliations, mergers, acquisitions, and outreach opportunities in the communities we serve.

Laboratory Vision

“To be the premier laboratory, anticipating, pursuing, and implementing advances in laboratory medicine, while providing exceptional service to meet the needs and expectations of the people we serve.”

Laboratory Mission

“To deliver accurate, timely, value-driven diagnostic, theranostic, and prognostic laboratory information and services.”

Laboratory Values

To ensure our future and preserve our rich heritage, we adhere to the following shared values:

Professionalism: Deliver exceptional service, build a positive team spirit.

Respect: Treat others as they would like to be treated.

Involvement: Share responsibility for healing with physicians, peers, patients, and families.

Dignity: Be compassionate, empathetic, and supportive.

Excellence: Pursue greatness with passion and commitment

P- R- I- D- E



History of Atlantic Health System – Medical Laboratory Science Program (MLS)

The School of Medical Technology was established at Morristown Memorial in 1959 by Dr. Hugh Luddecke to meet the growing need for competent laboratory professionals. In 1996, Atlantic Health was formed with the partnership of Morristown Memorial and Overlook Hospital. With the addition of Newton Medical Center and Chilton Medical Center, Atlantic Health grew into a system-wide network of providers.

The School celebrated its 50th Anniversary in 2010 with a renaming ceremony, **“The Atlantic Health System – School of Medical Laboratory Science.”** The School has graduated over 300 students and many of the laboratory staff and management personnel employed today in the laboratory are alumni of the program.

The MLS Program consists of a full-time, 12 month educational program with didactic instruction as well as clinical practice through all the laboratories in Atlantic Health System. Atlantic Health System, MLS Program incorporates five clinical institutions, Morristown Medical Center, Overlook Medical Center, Newton Medical Center, Chilton Medical Center and Atlantic Health Consolidated Laboratory.





Published Program Performance Outcomes

Applicants, Current Students, and Prospective Students

Atlantic Health System’s Medical Laboratory Science Program achieved the following:

Year	Graduation Rate	Attrition Rate	Employment Rate	ASCP Pass Rate First Attempt
2014-2015	6/6 = 100%	0%	6/6 = 100%	6/6 = 100%
2013-2014	6/6 = 100%	0%	6/6 = 100%	6/6 = 100%
** 2012-2013	6/6 = 100%	0%	6/6 = 100%	4/6 = 67%

**** Note:** The new Program Director arrived mid-way into school year, with Class of 2013.

ASCP Pass Rate (first attempt)	NAACLS Benchmark	AHS- MLS Program Outcome
Based Upon a 3 year Rolling Calendar	75%	89%



Medical Laboratory Science Program

Mission

The mission of Atlantic Health System, School of Medical Laboratory Science is to prepare qualified individuals to enter the profession of Medical Laboratory Science with the knowledge, skills, and attitudes necessary to achieve competence, and to demonstrate continued professionalism and growth throughout their careers. The curriculum will emphasize proficiency in the evaluation of clinical laboratory data in order to assess results and emphasize resolutions for both technical and non-technical issues. From this clinical experience, graduates will be prepared for future roles in clinical laboratory science, management, education, information system technology, research and administration.

Program Goals

The MLS Program goal is to provide an educational program which will provide trained and educated laboratorians into the medical laboratory profession. The goal will be attained by the combination of didactic and clinical practicum education with specific course objectives. The clinical experience is designed to develop the students' abilities through cognitive domain, with a well-defined body of knowledge; affective domain by developing communication, problem solving and professional skills, and psychomotor domain by building a core set of transferable laboratory competencies which the student can perform at the entry level in a clinical setting.

Program Objectives

The Program Objectives are outlined according to the three domains of learning: cognitive, psychomotor, and affective.

Cognitive Domain

Upon completion of the clinical experience the student will be able to demonstrate factual knowledge of course material which covers a minimum body of knowledge in the field of Medical Laboratory Science, which includes:

- The student will be able to describe the pre-analytical, analytical, and post analytical variables affecting collection and testing of specimens and the reporting of the results.
- The student will be able to describe specimen collection, processing, labeling and storage with respect to physiological, methodological and immunogenic theory, involving the different testing areas of the clinical laboratory.

- The student will be able to describe staining characteristics, specimen collection, media preparation and selection, and incubation conditions of routine and unusual bacteria, parasites, and viruses.
- The student will be able to evaluate results and to recognize health and disease states and to assess the validity and accuracy of procedures, determine inconsistent results, take correction action and report the need for additional or confirmatory testing.
- The student will be able to describe the essential components, principles of operation and preventative maintenance of representative equipment used in the laboratory.
- The student will be able to discuss the essential components of educational methodologies as they apply to the clinical experience.

Psychomotor Domain

The performance of a prescribed list of routine tests falls within the psychomotor domain. By the completion of the clinical experience, the student will be able to:

- Perform, using standard and specialized equipment, a list of tasks determined by the program to be essential, transferable skills with the clinical laboratory as practiced in hospitals, clinics, physicians' offices, independent laboratories, and forensic labs.
- Possess manual dexterity as required by tasks including but not limited to the performance of venipuncture, the operation of instruments, computers, and Point of Care devices, with correct utilization of sample measuring devices and microscopy techniques.

Affective Domain

In the areas of professionalism, ethics, interpersonal skills and professional practice, the student will exhibit the following behaviors:

- Comply with the PRIDE values
- Being prompt and attentive
- Comply with time and attendance policies
- Functioning within the realm of one's learning ability
- Being attentive and showing interest by asking questions for clarification or to gain additional information
- Checking work for errors and adhering to quality control criteria
- Organizing daily assignments without constant direction
- Following through on problems to the extent of his/her knowledge and seeking assistance when needed
- Being cooperative and responding positively to constructive criticism.
- Maintaining a professional attitude in dealing with both instructors and peers.
- Not allowing distractions or disinterest to cause repetition of mistakes
- Being a team player during the clinical experience
- Showing initiative through additional reading and/or investigation in order to enhance the educational experience

- Following all ethical conduct guidelines
- Adhering to patient confidentiality policies and procedures
- Communicate effectively in written and spoken English language
- Appropriately assess verbal and non-verbal communication
- Read typewritten text from hard copy and computer monitors
- Work independently and with others under time constraints
- Project an image of professionalism including appearance and dress code
- Demonstrates safety and compliance to Personal Protective Equipment

Career Entry Level Competencies

After successful completion of the clinical experience, through the accomplishment of the above-mentioned objectives, the core set of transferable laboratory competencies which a student can perform at the entry level in the clinical laboratory include:

1. Applies:

- Principles of basic laboratory procedures in order to perform tests
- Principles of special procedures related to testing
- Knowledge to identify sources of error in laboratory testing
- Knowledge of fundamental biological characteristics as they pertain to laboratory testing, in order to interpret laboratory findings
- Knowledge of theory and practice related to laboratory operations
- Knowledge of standard operating procedures

2. Selects:

- Procedural course of action appropriate for the type of sample requested
- Reagents/media according to established procedures
- Instruments to perform tests appropriate to test methodology, according to established procedures
- Appropriate controls for the tests performed
- Routine laboratory procedures to verify test results according to established protocol
- Special laboratory procedures to verify test results
- Instruments for new laboratory procedure

3. Prepares:

- Reagents/media for tests according to established procedures
- Instruments to perform test
- Controls appropriate for testing procedures

4. Calculates:

- Results from the test data obtained from laboratory procedures

5. Correlates laboratory data:

- Along with clinical data to assess test results

- Along with quality control data to assess test results
- Along with other laboratory data to assess test results
- Along with physiologic processes to assess/validate test results and procedures

6. Evaluates:

- Laboratory and clinical data to specify additional tests
- Laboratory data to recognize common procedural/technical problems
- Laboratory data to verify test results
- Laboratory data to determine possible inconsistent results
- Laboratory data to recognize health and disease states
- Laboratory data to assess validity/accuracy of procedures for a given test
- Laboratory data to make corrective action according to pre-determined criteria
- Laboratory data to recognize and report the need for additional testing
- Laboratory data to determine alternate methods for a given result
- Various methods to establish new testing procedures, laboratory, and clinical data to assure personal safety
- Laboratory data operational policies
- Test results obtained by alternate methodologies
- Laboratory data to establish reference range criteria for existing or new tests
- Laboratory data to make identifications

Application of knowledge and skills is emphasized. Performance of manual and automated procedures is required. By the conclusion of the rotation, students are expected to have the knowledge and skills necessary to function as entry level MLS professionals.

At entry level, the MLS will possess the entry level competencies necessary to perform the full range of clinical laboratory tests in areas such as Clinical Chemistry, Hematology/Hemostasis, Immunology, Immunohematology/Transfusion medicine, Microbiology, Urine and Body Fluid Analysis, and other emerging diagnostics, and will play a role in the development and evaluation of test systems and interpretive algorithms. The MLS will have diverse responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement wherever laboratory testing is researched, developed or performed.

At entry level, the Medical Laboratory Scientist will have the following basic knowledge and skills in:

A. Application of safety and governmental regulations and standards as applied to clinical laboratory science;

B. Principles and practices of professional conduct and the significance of continuing professional development;

C. Communications sufficient to serve the needs of patients, the public and members of the health care team;

D. Principles and practices of administration and supervision as applied to clinical laboratory science;

E. Educational methodologies and terminology sufficient to train/educate users and providers of laboratory services;

Accreditation

The Medical Laboratory Science Program @ Atlantic Health System is proudly accredited by:

National Accrediting Agency for Clinical Laboratory Science (NAACLS)

5600 N. River Road, Suite 720
Rosemont, IL 60018-5119
Phone: 773-714-8880
Fax: 773-714-8886

NAACLS Mission Statement

The NAACLS is committed to being the premier international agency for accreditation and approval of educational programs in the clinical laboratory sciences and related health professions. NAACLS provides leadership in fostering innovative educational approaches and actively supports cooperative efforts with other agencies.

NAACLS, in collaboration with its professional organizations, provides comprehensive services including program accreditation, program approval, consultation, and continuing education. NAACLS provides these services for educational programs, students, employers and healthcare consumers.

NAACLS is dedicated to volunteer peer review as the foundation of accreditation and approval. The agency strives to prepare these volunteers and to assist them in providing exemplary program analysis, based upon principles of honesty, fairness, objectivity and integrity. NAACLS demonstrates commitment to public service by setting standards for quality educational programs in clinical laboratory sciences and related health professions. NAACLS will continue to be responsive to the needs of the healthcare community.

NAACLS Website

<http://www.naacls.org/>

Professional Organizations

American Society for Clinical Laboratory Science (ASCLS)

<http://www.ascls.org>

This is a mandatory membership for all MLS students enrolled in MLS Program.

ASCLS Mission

The mission of ASCLS is to make a positive impact in health care through leadership that will assure excellence in the practice of laboratory medicine.

ASCLS Believes:

1. Quality laboratory service is essential to quality health care.
2. Competent, credentialed, laboratory professionals are the foundation to quality laboratory medicine.
3. Everyone deserves access to safe, effective, efficient, equitable, and patient-centered healthcare, and
4. Advancing the laboratory profession

Core Values:

1. Ensuring safe, accurate, efficient, appropriate and cost effective laboratory services is a component of quality
2. Defining the characteristics of competent personnel within the profession and providing professional development opportunities so that practitioners can maintain competency are essential roles of a professional association
3. Enabling laboratory professionals to function at their highest level of competence will contribute to cost effective health care
4. Promoting diversity supports the delivery of quality laboratory service
5. Taking a leadership role in standard and policy setting is a core professional responsibility
6. Advocating for quality within the laboratory is essential to the assurance of quality health care delivery.

ASCLS Code of Ethics

Preamble

The Code of Ethics of the American Society for Clinical Laboratory Science sets forth the principles and standards by which clinical laboratory professionals practice their profession.

I. Duty to the Patient

Clinical laboratory professionals are accountable for the quality and integrity of the laboratory services they provide. This obligation includes maintaining individual competence in judgement and performance and striving to safeguard the patient from incompetent or illegal practice by others.

Clinical laboratory professionals maintain high standards of practice. They exercise sound judgment in establishing, performing and evaluating laboratory testing. Clinical laboratory professionals maintain strict confidentiality of patient information and test results. They safeguard the dignity and privacy of patients and provide accurate information to other health care professionals about the services they provide.

II. Duty to Colleagues and the Profession

Clinical laboratory professionals uphold and maintain the dignity and respect of our profession and strive to maintain a reputation of honesty, integrity and reliability. They contribute to the advancement of the profession by improving the body of knowledge, adopting scientific advances that benefit the patient, maintaining high standards of practice and education, and seeking fair socioeconomic working conditions for members of the profession.

Clinical laboratory professionals actively strive to establish cooperative and respectful working relationships with other health care professionals with the primary objective of ensuring a high standard of care for the patients they serve.

III. Duty to Society

As practitioners of an autonomous profession, clinical laboratory professionals have the responsibility to contribute from their sphere of professional competence to the general well-being of the community.

Clinical laboratory professionals comply with relevant laws and regulations pertaining to the practice of clinical laboratory science and actively seek, within the dictates of their consciences, to change those which do not meet the high standards of care and practice to which the profession is committed.

ASCLS: Pledge to the Profession

As a clinical laboratory professional, I strive to:

- Maintain and promote standards of excellence in performing and advancing the art and science of my profession.
- Preserve the dignity and privacy of others.
- Uphold and maintain the dignity and respect of our profession.
- Seek to establish cooperative and respectful working relationships with other health professionals.
- Contribute to the general well-being of the community.

I will actively demonstrate my commitment to these responsibilities throughout my professional life.

American Society for Clinical Pathology (ASCP)

<http://www.ascp.org>

The American Society for Clinical Pathology (ASCP) is the world's largest professional membership organization for pathologists and laboratory professionals. Our mission is to provide excellence in education, certification and advocacy on behalf of patients, pathologists and laboratory professionals across the globe. With more than 100,000 members, the society's influence has guided the application and evolution of the pathology and laboratory medicine specialty since 1922.

ASCP: Student Link for Signup of Free Membership (mandatory)

<http://www.ascp.org/Students>

ASCP Certification Information

For all laboratory professionals, the ASCP Board of Certification (BOC) is here to help you maintain your certification and excel in your career. As the oldest and largest certification agency for laboratory professionals, the BOC has certified more than 500,000 individuals since it was established and has become the gold standard for certification of laboratory personnel.

<http://www.ascp.org/boc>

<http://www.ascp.org/PDF/BOC-PDFs/BOC-Shortcuts.aspx>

<http://www.ascp.org/PDF/BOC-PDFs/Guidelines/ExaminationContentGuidelineMLS.aspx>

<http://www.ascp.org/PDF/BOC-PDFs/procedures/Examination-Procedures.pdf>

<http://www.ascp.org/PDF/BOC-PDFs/Bibliography/ReadingListMLS.aspx>

<http://www.starttest.com/7.2.0.0/cart.aspx?program=ASCPPractice>

Curriculum Overview / Admission Criteria / Application

Curriculum Overview

The MLS Program at AHS consists of a full-time, 12 month educational program with didactic instruction as well as clinical practice through all the laboratories in Atlantic Health System. Atlantic Health System, School of MLS incorporates five clinical institutions, Morristown Medical Center, Overlook Medical Center, Newton Medical Center, Chilton Medical Center and Atlantic Health Consolidated Laboratory. The MLS lecture classroom and student laboratory are located at the Atlantic Consolidated Laboratory in Morris Plains, New Jersey.

Educators and instructors in the program consist of managers, coordinators, clinical laboratory specialists, and laboratorians working in the clinical laboratory which allows for continuity of instruction and enhances the education experience

After successful completion of all clinical and lecture requirements the student will be awarded a Certificate in Medical Laboratory Science. A completed transcript (32 credits) will be mailed to the affiliated college and the student is eligible to take the ASCP Board of Certification Exam.

Program Admission Criteria

Atlantic Health System, MLS Program is currently affiliated with the following academic affiliates:

- 1- Kean University
- 2- Fairleigh Dickinson University
- 3- Rutgers's University (New Brunswick Campus Only)
- 4- East Stroudsburg University, PA
- 5- Monmouth University, NJ
- 6- Mercy College, New York

3+1 Students

The institutions have agreed to award 32 college credits for successful completion of our program, and these credits contribute towards a baccalaureate degree in Medical Laboratory Science (3 +1 Program). Applicants from our Academic Affiliates will be given top priority for admission. Eligible applicants in such "3+1" programs must complete all course requirements in the core curriculum in Medical Laboratory Science at a regionally accredited institution **prior to beginning our program at Atlantic Health System**. In addition, the required pre-requisite courses must meet the required GPA for admission into the Atlantic Health System program and all applicants from a 3+1 program are accepted "conditionally" until all transcripts are reviewed. If a 3+1 student is conditionally accepted and courses are still in progress, those courses **MUST** meet the required GPA for admission. If those required courses fall below the required GPA for admission, the applicant's admission may be in jeopardy or revoked. The admission decision will be at the discretion of the Program Director and the admissions committee.

4+1 Students

The program is also open to applicants who have completed a baccalaureate degree in Biology, Chemistry, or related Life Science (with the completed required prerequisite courses). Such applicants are eligible to apply for post-baccalaureate status ("4 +1").

A post-baccalaureate applicant is also accepted "conditionally" if the required prerequisite courses are not completed or still in progress. If a 4+1 student is conditionally accepted and pre-requisite courses are still in progress, those courses MUST meet the required GPA for admission. If those required courses fall below the required GPA for admission, the applicant's admission may be in jeopardy or revoked. The admission decision will be at the discretion of the Program Director and the admissions committee.

All students must satisfactorily complete the program in its entirety. All students completing the full-time 12 month program will be awarded a certificate of completion and a final transcript of course grades and credits earned.

Note: Six students are admitted annually and applicants from collaborating academic affiliates (3+1) receive first consideration for admission.

MLS Program Application and Admission Requirements

- 1- Prerequisite college course requirements
- 2- Grade Point Average (GPA)
- 3- College Transcript Submission Requirement
- 4- Letters of Recommendation (3 are required)
- 5- Professional Career Essay (hand-printed)
- 6- Application Form Requirement
- 7- Application Fee Requirement (\$100.00 and **NO** Personal Checks Accepted)
- 8- Essential Functions Form Acknowledgement

Note: *A non-refundable application fee of \$100.00 (money order or certified bank check ONLY) payable to " **School of Medical Lab Science- Morristown Medical Center**" must be submitted with the Application Packet for your application to be evaluated for admission to the program.*

To be eligible for admission, applicants must have the following requirements:

Section 1: Prerequisite College Course Requirement

Six students are admitted annually and applicants from collaborating academic affiliates receive first consideration for admission.

The student must have completed at least 16 credits in Biological Sciences courses including:

- Anatomy and Physiology (4 to 8 credits)
- Cell Biology (3 to 4 credits)
- Genetics (3 to 4 credits) and/or Molecular Biology (3 to 4 credits)

The student must have completed at least 16 credits in Chemistry courses including:

- General Chemistry (8 credits)
- Organic Chemistry (4 credits)
- Biochemistry (3 to 4 credits) or Analytical Chemistry (3 to 4 credits)

Additional **required courses** include:

- College Algebra (3 credits)
- Statistics (General Statistics/Biostatistics/Quantitative Analysis) (3 credits)
- Microbiology (4 to 8 credits) ****
- Immunology (3 to 4 credits) ****

******Note:** Microbiology and Immunology courses **MUST** be taken within the past 7 years; otherwise the course must be repeated.

Note: All courses must have a letter grade; no pass/fail grades accepted.

Note: Credits for prior experiential learning, advanced standing, or waiver of program courses will not be granted to any applicant and remedial or survey courses do not meet the prerequisite course requirements.

Section 2: Grade Point Average (GPA) Requirement

Requirements for admission include both a pre-requisite course GPA (of the required courses listed above) of least a **3.0** (out of a 4.0 scale) AND a total cumulative GPA must be at least a **2.9** and above.

Section 3: College Transcript Submission Requirement

All college/university official transcripts must be submitted along with the application packet. Each applicant's transcript will be reviewed for content.

Note: All graduates from foreign universities are required to have their transcripts evaluated by an appropriate evaluation agency. For a list of these agencies contact the American Society of Clinical Pathology (ASCP): ASCP Board of Certification, Chicago, Illinois; 1-800-267-2727; option 2, 2.

TOEFL Examination

International applicants, applicants who studied in a foreign country, and/or applicants whose first language is not English MUST submit scores received on the **“Test of English as a Foreign Language” (TOEFL)**.

TOEFL score minimum requirement

- **79/80 on the Internet-based examination**
- **213 on the Computer-based examination**
- **550 on the Paper-based examination**

The TOEFL is administered by the Educational Testing Service (ETS). Applications may be obtained from ETS, Box 6151, Princeton, NJ 08541-6151. The results of these tests help applicants determine whether they are prepared to undertake study conducted in English before making extensive plans for study in the U.S.

Section 4: Letters of Recommendation Requirement

Three letters of recommendation are required for admission into the program. These need to be three individuals who are familiar with your academic performance. Please visit the Atlantic Health Website for all applications, forms, and letters for Program Admission.

Section 5: Professional Career Essay Requirement (hand-printed)

Briefly describe your reasons for pursuing a degree or certification in clinical laboratory science. Include specific reasons for selecting this field of study and a statement of your current career goals. The essay must be **clearly printed** and easily read and must be no more than **250 words**.

Section 6: Application Form Requirement

A program application form must be completed and clearly readable. Any incomplete application forms will not be processed.

Section 7: Application Fee Requirement

*A non-refundable application fee of \$100.00 (money order or certified bank check ONLY) payable to " **School of Medical Lab Science- Morristown Medical Center**" must be submitted with the Application Packet for your application to be evaluated for admission to the program.*

Note: **NO Personal Checks are accepted** and if a personal check is submitted, your application will not be processed.

Section 8: Essential Function Form Acknowledgment Requirement

Applicants who accept a position at Atlantic Health System, School of Medical Laboratory Science Program should do so with a clear understanding of the functional expectations of the program. The student must be able to fulfill these expectations in order to successfully complete this program. You are asked to read the following essential functions and determine whether you can perform these functions to complete the program.

Essential Functions

Students enrolling (and graduating from) a Medical Laboratory Science Program must meet the essential function requirement of the academic program and the profession. Essential Functions are the non-academic standards that a student must be able to master to participate successfully in the program and become employable. Specific examples of the Essential Functions of the Atlantic Health System – School of Medical Laboratory Science are provided below.

- Observe laboratory demonstrations in which biological, i.e. body fluids, culture materials, tissue sections and cellular specimens are tested for their biochemical, hematological, immunological, microbiological, and histochemical components.
- Characterize color, odor, clarity, and viscosity of biological samples, reagents, or chemical reaction products.
- Utilize a clinical grade binocular microscope to discriminate among fine structural and color (hue, shading, and intensity) differences of microscopic specimens.
- Read and comprehend text, numbers and graphs displayed in print and on a video monitor.
- Recognize alarms.
- Perform laboratory testing adhering to existing laboratory safety standards.
- Perform moderately taxing continuous work, often requiring prolonged sitting and/or standing over several hours.
- Reach laboratory bench tops and shelves, and patients lying in hospital beds or seated in blood collection furniture.

- Grasp, hold, transport, and utilize specimens, reagents, hazardous chemicals, and equipment in a safe manner as needed to perform laboratory testing.
- Obtain patient specimens in a timely, safe and professional manner (i.e., perform phlebotomy and skin punctures).
- Use laboratory equipment (i.e. pipettes, inoculating loops, test tubes) and instruments to perform laboratory procedures according to established laboratory guidelines.
- Use a computer keyboard to operate laboratory instruments and to calculate record, evaluate, and transmit laboratory information.
- Troubleshoot and correct basic equipment malfunctions.
- Read and understand technical and professional materials (i.e. textbooks, journal articles, handbooks, and instruction manuals).
- Follow oral and written instructions independently.
- Clearly instruct patients regarding specimen collection.
- Demonstrate sensitivity, confidentiality, and respect when speaking with patients.
- Communicate clearly, accurately and tactfully with faculty members, student colleagues, staff and other health care professionals orally and in a recorded format (writing, typing, graphics, or telecommunications).
- Possess good eyesight or good corrected vision in order to read typewritten test and data from computer terminals.
- Be able to effectively read, write, and communicate using the English language.
- Be able to discriminate color in order to identify reagents and other materials such as culture media, stained cell preparations, and physical properties of body fluids.
- Possess good manual dexterity as required in such tasks as: performing phlebotomy; operating delicate instruments, handling small containers of potentially 24 biohazardous materials; utilizing sample measuring devices; and adequately focusing and manipulating a microscope.
- Be able to perform some heavy lifting including reagent packages of thirty-fifty pounds.
- Possess enough hearing ability with or without auditory aids to understand the normal speaking voice.
- Be able to traverse hospital corridors, passageways, and doorway (minimum width; three feet).
- Be flexible and to adapt to changes in the environment such as moderate noise and activity.

All applicants will be required to represent on the application, that they understand the technical Essential Functions and believe that they are capable of satisfying them with corrective devices and /or reasonable accommodations.

Application Forms: Posted on Atlantic Health System Website

<http://www.atlantichealth.org/Files/Public/Documents/MedLabScienceApplicationPackage.pdf>

- Admissions Application Form
- Essential Function Form
- Recommendation Letters (3)

Submit all application materials to:

Department of Pathology and Laboratory Medicine

Program Director –Medical Laboratory Science Program
Morristown Medical Center
Laboratory- Box 17
100 Madison Avenue
Morristown, NJ 07960

Applications may be obtained from the Atlantic Health System website and must be submitted during the Fall of the year preceding the Program's start date.

The application deadline is October 1st for admission the following year.

On-Site Interview

Interviews are reserved for those applicants who meet the initial screening criteria. If an applicant does not meet the above criteria, they will not be eligible for an on-site interview. Following a personal interview, applicants are evaluated for acceptance into the program. Interviews will be scheduled in the month of **October** and students will be notified of acceptance into the program by **November 15**.

Non-Discrimination Policy

Atlantic Health System does not discriminate on any basis, either in recruitment of students for the MLS Program or recruitment of faculty to teach in the MLS Program.

Note: The selection of students and faculty is based solely on academic qualifications, career interest, and personal interview. No student will be discriminated against on the basis of race, creed, color, national origin, ancestry, marital status, gender, handicap, disability, or sexual orientation or veteran status.

Candidates are notified of acceptance via email. **Acceptance is conditional at that time.**

Final acceptance is contingent upon the satisfactory completion of prerequisite courses in progress at the time of application, and a favorable report upon a physical examination performed at Atlantic Health System, which includes a screening for drugs of abuse. In addition, a background check is required of all applicants who are accepted into the program. Any discrepancy or any status report other than "Cleared" must be submitted to Human Resources for counsel and guidance. At this point, it is at the discretion of Human Resources of AHS for decision of final acceptance into the Program.

Application Checklist

ALL Applicants are required to **submit:**

1. A non-refundable application fee of **\$100.00** payable to: **“Morristown Medical Center”**
(note: no personal checks accepted – only money orders or certified bank check)
2. A completed **Application Form**
3. Official copies of **college transcripts (all colleges attended)**
4. **Three letters of recommendation** (from individuals familiar with your academic performance)
5. Professional **Career Essay** (hand-printed only)
6. **Essential Functions Acknowledgement Statement**

Application Process: Details are described in the MLS Program Handbook and Student Information Guide and on Website

Required Forms: are located on website

<http://www.atlantichealth.org/atlantic/for+professionals/school+of+medical+laboratory+science/>

1. Application Form
2. Printed Professional Career Essay
3. Recommendation Letters (three are required and can arrive separate from the packet)
4. Essential Functions Acknowledgement Statement

Note: Only those applicants who meet the eligibility requirements will be notified for a personal interview.

Application Deadline: October 1 (of the preceding year)

Note: Any packet that is incomplete will not be processed.

Mail all correspondence/payments in **ONE Packet** to:

Atlantic Health System –Morristown Medical Center
School of Medical Laboratory Science
100 Madison Avenue, Box 17
Morristown, NJ 07960

Attention: Director, Medical Laboratory Science Program

Program Expenses and Fees

Tuition Cost: The total cost of program tuition is \$6,000.00

Academic/Clinical Fees: The total cost of fees: \$500.00 (for below activities and services)

- Professional Seminars
- Off-site symposiums/ Class Trips
- American Society for Clinical Laboratory Science (ASCLS) Student Membership (mandatory)
- Case study poster
- Background Check
- Urine Drug Screen

Total MLS Program Cost: = \$6,500.00

(note: excluding textbooks, uniforms, liability insurance)

A **non-refundable deposit** of \$500.00 is due upon conditional acceptance. This will be credited towards the cost of the academic/clinical fee.

Balance of \$6,000.00 tuition cost is paid in two installments (*unless other arrangements have been previously made with the MLS Program Director*)

- \$3,000.00 paid 30 days prior to the start of the program.
- \$3,000.00 paid the first day back in January after the Holiday Break.

Note: All tuition payments and deposits must be paid by **money order, certified bank check, or credit card.** **Note:** Personal checks **are not** accepted.

Note: Any student who has an overdue balance on his or her tuition and has not made satisfactory arrangements with the Program Director may have his or her internship terminated.

Financial Assistance

There are available options from student loans through the federal government, i.e., Sallie Mae. In addition, PEL grants maybe available through the government, as well as various scholarship opportunities from professional societies (ASCLS, ACSP) that students are encouraged to apply during the school year if they meet eligibility criteria.

Withdrawal and Refund Policy

Any student who wishes to withdraw from the program must submit a letter of resignation to and consult with the Program Director. The student's college advisor will be notified of the student's intent to withdraw. If a student **voluntarily withdraws** or is **dismissed** during the first eight weeks of the program after the tuition installment has been paid, the refund policy is as follows:

First week through fourth week: 75% refund

Fifth week through the eighth week: 50% refund

After eighth week – **NO REFUND**

If the student has already paid for the second semester, he or she will be reimbursed in full for that semester. Students who withdraw or are dismissed at any time during the second semester will not receive any refund for that semester.

The effective withdrawal date is the date on which a written statement from the student is received by the program director. If the student is dismissed, the effective date is the last day of the student's attendance in the rotation.

The student is responsible for any other bills he or she has at that time.

For students paying full tuition at their school, the school's refund policy will be in effect.

Additional Student Expenses

Textbooks: The cost of textbooks is a separate expense. A list of required textbooks will be sent via email to accepted students 60 days prior to the start of the Program and can be purchased on the internet by various publishers and book stores. The approximate cost for textbooks is \$500.00 - \$600.00.

Liability Insurance: All students are required to purchase low cost liability insurance. The insurance programs' limits of liability are \$1,000,000 each incident/\$3,000,000 aggregate. The insurance can be purchased online at www.proliability.com and students must provide proof of insurance to the Program Director prior to the start date of the program.

Students will receive free medical attention at the hospital under the following circumstances only:

1- Attention necessary as the result of a "job-related accident": An incident report obtained in the department or from the Program Director must be filled out to receive this medical service. Occupational visits are covered.

2- You become ill during normal school hours: Visits to Occupational Health are covered.

Note: Any hospital admissions or emergency room visits must be covered by your personal health insurance. Investigate if you are covered by your parents, spouse or school. If not, it is recommended that you purchase at least a basic hospitalization policy.

Uniforms: While in attendance at the AHS, School of MLS, the official attire for all students is hospital-style navy blue scrubs. All students are required to purchase these scrubs in the designated color of AHS-MLS Program. The approximate cost of uniforms is \$120.00.

MLS Program Structure

Length of program: 44 - 46 weeks

Student capacity: 6 students

Lecture (Didactic) Series

Orientation and Introductory Lectures and Student Lab Activities..... 14 -16 weeks
(May/June/July/September)

Lecture Series: Mondays only: October through May

Clinical Laboratory Rotation: 30 weeks @ 30 hours/week = 900 hours

(Note: concurrent with clinical rotations throughout the year.)

Note: The arrangement and schedule of lectures and the laboratory rotation schedule may change at any time as per the discretion of the MLS Program Director and/or any operational issues that will affect the quality of patient care.

Sequence of Courses: Some Introductory Courses may be taught in a Block Schedule, Self – Directed Learning Modality or the Flipped Classroom.

- Laboratory Operations
(Phlebotomy/Safety/Education/Management/PRIDE/QA/QC/Lab Math)
- Urinalysis/Body Fluids
- Hematology/Hemostasis
- Immunology
- Blood Bank
- Chemistry
- Microbiology

MLS Program Schedule

Contact the Program Director for confirmation of the starting date for the program. The program begins with mandatory education of hospital orientation to fire/safety, blood-borne pathogens, and corporate compliance. The student laboratory will introduce students to basic laboratory techniques, pipetting, preparing dilutions and cell suspensions, lab math calculations, computer applications, phlebotomy/Point-of-Care and basic microscopy. In addition, the students “shadow” MLS working in the laboratory. Observational learning usually takes place in the first several months of the program to get students accustomed to working life in the clinical laboratory.

Formal lectures are given in each major area of the laboratory. Students are assigned to clinical practice and rotate through the various laboratories between Morristown, Overlook, Newton Medical Centers, and the Atlantic Consolidated Laboratory.

In addition, the MLS Program may consider using alternate clinical sites as needed in support of the additional growth and expansion of Atlantic Health System.

In the majority of the laboratory settings for clinical practice, there is an instructor to student ratio of 1:2. Since there are six students enrolled in the class, the students rotate to their respective clinical practice rotations in pairs. For the didactic sessions in the classroom, the instructor to student ratio is 1:6. The classroom lectures are presented by the Program Director, Site Managers, Coordinators, Lead MLS, Clinical Specialists, and MLS's currently working in the clinical laboratory.

The students are at the hospital 7.5 hours each day for a total of 37.5 hours per week. The usual schedule is 7:00 am to 3:00pm. During some clinical practice rotations in Microbiology, the schedule is adjusted to 3:00 pm to 11:00 pm to meet the need of the workload schedule in the department and to introduce second shift education into the MLS Program. If a student is scheduled for a 3:00 pm to 11:00pm clinical rotation, they are not required to report for the 7:00 am to 3:00 pm education hours. A Holiday Break will be scheduled near the end of December. Students are not expected to report to the laboratory on Thanksgiving (Thursday and Friday), Christmas Day, New Year's Day, Memorial Day, and Independence Day. Time off may be given for alternate days of religious observance.

Note: The student schedule (didactic/clinical rotation) is subject to changes, which are based upon the needs of the laboratory and the needs of patient care. Any changes in the schedule need to be approved by the MLS Program Director and/or Laboratory Manager of Morristown Medical Center.

Course Descriptions

1. Blood Bank (Immunohematology-Transfusion/Donor Services) - 4 credits

Didactic and clinical experiences include the study of blood group systems including serologic reaction, rare blood groups, and genetic inheritance of blood group antigens. Compatibility testing, donor processing, antibody detection and identification, component preparation, and blood group problem solving are discussed. Instruction, workshops, and laboratory demonstrations focus on problem solving for donor and transfusion services. Students will practice/perform routine and complex serological procedures in Immunohematology including ABO/Rh testing, Antibody Screening and Identification.

2. Clinical Chemistry - 8 credits

Didactic and clinical experiences cover the principles and performance of chemical assays including colorimetric, electrophoretic, and immunoassay procedures. Result interpretation and data correlation with diseases are integral components of this course as well as instruction in the operation, maintenance, and troubleshooting of analytical instruments. There is a strong emphasis on identifying, troubleshooting, and classifying laboratory errors and resolution of laboratory error, including statistical correlations with quality control and linearity/calibration testing. Introduction of the Westgard statistical website and the use of constructing/printing curves, charts, graphs will be emphasized when interpreting and analyzing quality control data and total allowable error. The physiology of acid-base, carbohydrate, lipid metabolism, electrolytes, proteins, non-proteins, enzymology, endocrinology, tumor markers, toxicology and therapeutic drug monitoring are topics discussed in the didactic portion of the program.

3. Clinical Hematology and Hemostasis – 5 credits

Didactic and clinical experiences cover blood cell formation, hemostasis, identification of normal and abnormal cells by morphology and immunologic markers, correlation of cell types with disease, and instrumentation used in the analysis and quantitation of blood components. Cellular analysis of other body fluids is included as well. The coagulation and hemostasis component includes the use of coagulation studies to identify factor deficiencies and monitor anticoagulant therapy. In the laboratory, the student will become competent in the performance of automated tests used to monitor the three facets of hemostasis: vascular, platelet function, and factor abnormalities. Selected topics include advanced concepts in the physiology of hematopoiesis and hemostasis and the clinical correlation of laboratory data in conditions such as anemia, leukemia and hemorrhagic and thrombotic disorders.

4. Immunology and Molecular Diagnostics – 2 credits

Didactic and clinical experiences include the study of antigens and antibodies and the laboratory techniques used in their identification and quantitation. Study includes antibodies associated with infectious disease, autoimmunity, antigen-antibody reactions, infectious mononucleosis, syphilis, pregnancy testing, viral hepatitis, Lyme disease, and HIV/AIDS. In addition, didactic topics include the structure, function and synthesis of DNA, RNA, and involved proteins; the mechanism of inheritance; medical genetics; an introduction to molecular techniques, and the relevance to immunological principles and laboratory diagnosis.

5. Urinalysis and Body Fluids – 2 credits

Didactic and clinical experiences include the study of renal structure and functions, the microscopic and biochemical analysis of urine, and the correlation of these data with clinical disease. Topics discussed include: anatomy and physiology of the kidney, formation and the composition of urine and microscopic evaluation of urinary sediment. In addition, other significant body fluids will be discussed including; cerebrospinal fluid, synovial fluid, fecal analysis and semen analysis.

6. Laboratory Operations – 3 credits

This course includes didactic and clinical practice experiences with basic laboratory skills including; microscopy, pipetting, preparing dilutions, and laboratory mathematics. In addition, peripheral blood phlebotomy, Point of Care testing, statistics, quality control and the introduction into pre-analytical, analytical, and post-analytical errors are discussed. Introduction of the Westgard statistical website and the use of constructing/printing curves, charts, graphs will be emphasized when interpreting and analyzing quality control data and total allowable error. Instruction in laboratory management, leadership, and educational methodologies are covered as well. During the clinical rotation, the student will develop and present a case study presentation in a Lunch and Learn to faculty and laboratory staff. In addition, the students will create an abstract of their respective case study to be submitted to the Atlantic Health System Research Day Committee. Laboratory Information Systems are briefly discussed as well as the interaction of bidirectional interfaces and automation in the clinical laboratory. Additional topics to be introduced and discussed include: PRIDE values, professionalism, ethics, and legal issues in laboratory medicine.

7. Clinical Microbiology – 8 credits

Didactic and clinical experiences cover a comprehensive study of microorganisms and their relationship to disease. Topics to be discussed include: bacterial structure, mechanisms of pathogenicity, gram positive and gram negative organisms, anaerobes, and mycobacterium. The isolation and identification of potential pathogens (parasitic, bacterial, and fungal), serologic identification, and microbial susceptibility are included. Additional topics to be discussed include; mycology, yeasts, viruses, antimicrobial characteristics and susceptibility patterns. Advance topics include; bioterrorism and molecular instrumentation in the microbiology laboratory.

Supervised Clinical Experience
Atlantic Health System – Medical Laboratory Science Program
Morristown, New Jersey 07960

The learning experiences in the curriculum will develop the student's abilities through the cognitive domain, with a well-defined body of knowledge; affective domain by developing communication, teamwork, problem solving and professional skills; and psychomotor domain by building a core set of technical skills and competencies.

Each MLS Student is expected to:

- Complete the 12 month full-time program with didactic and clinical laboratory experience, which equates to 32 college credits and 900 hours of clinical experience (30 hours per week for 30 weeks).
- Pass the didactic component with a minimum >75%.
- Pass the clinical laboratory component with a minimum >75%
- Pass the final program comprehensive examination to successfully complete and pass the program.
- Successfully pass the MLS Program at Atlantic Health System; and be eligible to sit for the National Certification for Medical Laboratory Scientist Examination from the American Society of Clinical Pathology (ASCP).

All students will rotate through the following clinical laboratory rotations and are expected to meet all of the course requirements.

Core Laboratory

Clinical Hematology/Clinical Chemistry/Urinalysis and Body Fluids

9 weeks @ 30 hours/week = total of 270 hours, to include:

- Specimen acceptability, accessioning, processing/ quality control for department
- Automated Chemistry
- Automated Hematology
- Manual WBC Differentials and Morphology
- Cellavision Technology (Automated WBC Differentials)
- Urinalysis
- Body Fluids
- Coagulation/Hemostasis
- Statistical correlations with quality control and linearity/calibration testing
- Statistical correlations with Levy Jennings Chart and Total Allowable Error
- Utilizing the Westgard statistical website, construction and printing of statistical curves/charts/graphs
- Utilizing ACL lab for automation troubleshooting workshop
- Student laboratory activities
- Pre-Analytic, Analytic, and Post-Analytic Errors and with situational case studies/ problem solving techniques

Special Hematology Laboratory

Flow Cytometry and FISH Laboratory

1 week @ 30 hours = total of 30 hours, to include:

- Specimen acceptability/accessioning/processing
- Flow Cytometry: Lymphoma panels/CD markers/Leukemia
- Fluorescent In-Situ Hybridization (FISH)
- Pre-Analytic, Analytic, and Post-Analytic Errors and with situational case studies/ problem solving techniques

Blood Bank Laboratory: (Immunoematology)

Transfusion Services: 4 weeks @ 30 hours/week = total of 120 hours

- Specimen labeling/acceptability/quality assurance/appropriate course of action/quality control
- Pre-Analytic, Analytic, and Post-Analytic Errors and with situational case studies/ problem solving techniques
- ABO/Rh/Antibody Screening/Antibody Identification (manual and automated methods)
- Direct Antiglobulin Testing/Elution/Titration
- Antigen Typing/Cross-matching Techniques/Compatibility Testing
- Selection and preparation of appropriate Blood Product: Red Blood Cell/ Fresh Frozen Plasma/ Platelets/Cryoprecipitate
- Adverse transfusion reactions
- FDA regulations for blood products and components
- Student laboratory activities
- Pre-Analytic, Analytic, and Post-Analytic Errors and with situational case studies/ problem solving techniques

Phlebotomy / Point of Care Testing/ Donor Phlebotomy

3 weeks @ 30 hours/week = total of 90 hours, to include:

- Specimen acceptability/quality control/specimen labeling/documentation
- Patient identification/personal protection equipment/customer service
- Phlebotomy supplies/ tubes/anticoagulants
- Order of draw/phlebotomy technique/proper labeling of tube
- Point of Care instrumentation/quality control/operation/maintenance/documentation
- Blood Donor requirements/deferrals/medical screening/donor eligibility
- Blood Donor phlebotomy in Donor Room and Mobile Blood Drive
- Adverse donor reactions
- Donor Recruitment education for MLS Student sponsored Blood Drive at Morristown Medical Center
- Student laboratory activities
- Pre-Analytic, Analytic, and Post-Analytic Errors and with situational case studies/ problem solving techniques

Clinical Microbiology Laboratory

10 weeks @ 30 hours/week = total of 300 hours, to include:

- Specimen acceptability/processing/accessioning
- Quality control for all aspects of rotation
- Blood Culture processing / gram stain: interpret and evaluate
- Bacteriology: Plate bench rotation: blood/wound/stool/genital/anaerobes
- Organism biochemical/selection of media (plates)
- Reading/Interpreting cultures (manual/automated)
- Serological identification techniques
- Molecular identification technique
- Mycology/Fungus: culture setup/microscopy/staining techniques
- Parasitology/microscopy/trichrome stain
- Mycobacteria/digestion/plate reading/biochemical/identification
- Pre-Analytic, Analytic, and Post-Analytic Errors and with situational case studies/
problem solving techniques

Clinical Immunology/Molecular Diagnostics

3 weeks @ 30 hours/week = total of 90 hours, to include:

- Specimen acceptability/processing/accessioning
- Lateral Flow Testing (Rapid Kits)
- ELISA Testing – Manual
- ELISA Testing – Automated
- Molecular Testing/PCR Testing/Branched DNA
- Athena - Multiplex/ANA/Measles/Mumps/Rubella/Varicella/EBV
- Centaur/Tumor markers/HIV
- Western Blot
- Electrophoresis
- RPR/Latex Agglutination/VDRL/Cryptococcal Antigen
- Pre-Analytic, Analytic, and Post-Analytic Errors and with situational case studies/
problem solving techniques

Atlantic Health System – Clinical Laboratory Rotation Sites

The School of MLS will utilize the following Clinical Laboratories for education through clinical rotations, a student laboratory, and observational learning to foster encompassing the total clinical experience for the one year internship in the AHS Medical Laboratory Science Program.

- Morristown Medical Center: Morristown, New Jersey
- Morristown Medical Center: Donor Room: Morristown, New Jersey
- Morristown Medical Center: Donor Services
Mobile Blood Drives in the Community
- Overlook Medical Center: Summit, New Jersey
- Newton Medical Center: Newton, New Jersey
- Chilton Medical Center: Pompton Plains, New Jersey
- Atlantic Consolidated Laboratory: Morris Plains, New Jersey

Program Grading and Evaluation

Didactic (Lecture) Evaluation and Assessment

1. Written examination: An examination will be given following each lecture series. These exams will consist of multiple choice, short answer and matching questions. Students must obtain a 75% or better on written tests. Unit exams will count as 75% of didactic grade.

2. Final examinations: A cumulative final exam will be given in each course at the end of the year. Final exam will count as 25% of didactic grade.

Criteria for satisfactory performance for Lecture (Didactic) Component:

Satisfactory performance in the lecture component is defined as an average of 75% or above in each course.

The grade for the lecture component represents 50% of the final grade for each course.

Note: A “Comprehensive Final” will be given in preparation for the National Certification Exam. The student must achieve a passing grade of 75%.

Clinical Practice (Lab Rotation) Evaluation: (50% of course grade: 40% clinical; 10% affective)

1. Written examinations: Written examinations are given in most of the clinical rotation. They consist of objective and essay questions covering material presented in laboratory discussions, instruction at the bench, reading assignments, and handouts.

2. Practical examination: Technical competency is assessed through practical examinations given during or at the end of each clinical rotation. They consist of clinical

specimens for quantitation or evaluation using selected procedures presented in the clinical rotation. In addition to assessing technical skill, the examinations are designed to evaluate organizational skills, problem solving skills, and the application of test results in differential diagnosis.

3. Affective evaluation: The clinical instructor completes an affective evaluation after the student completes their clinical rotation in a given section.

Criteria for satisfactory performance for Clinical Laboratory Rotation Component

Satisfactory performance in each clinical rotation is defined as:

1. 75% or better on all practical examinations including written and practical
2. Acceptable performance as defined on the performance checklist.

Students who fail to achieve the minimum passing score on a practical examination are required to make up the deficiency through re-examination. Only one opportunity for re-examination will be given. If the student successfully completes this exam, he or she will be given the minimum passing grade for the examination (75%).

Clinical grade will be determined by averaging the written and practical grade.

- The grade for the clinical component represents 50% of the final grade for each course.
- Psychomotor/ cognitive= 40%
- Affective (**PRIDE Behavioral competencies**) = 10%

Determination of Final Course Grade

Final numerical grades for each course are determined by averaging the lecture grade with the clinical grade for each course. Students must have a passing average in both lecture and clinical (75% or better) for them to be averaged.

Final grades are submitted to the academic affiliates upon completion of the program. Program transcripts include numerical grades for the following courses:

- Blood Bank (Immunohematology) = 4 credits
- Clinical Microbiology = 8 credits
- Clinical Hematology and Hemostasis = 5 credits
- Clinical Immunology/Molecular = 2 credits
- Clinical Chemistry = 8 credits
- Laboratory Operations = 3 credits
- Urinalysis/Body Fluids = 2 credits

Total credits of program = **32 credits**

Note: The final grade report and academic transcript sent to the academic affiliate contain the numerical grade of the course only (not letter grade) and the corresponding credit value for each

individual course. Each college has their own and unique grading system, independent of Atlantic Health MLS Program.

During the clinical year, all evaluations and laboratory examinations will be filed in the Program Directors Office. The student will have access to these records throughout the year. At the end of the clinical year, the evaluations will become part of the student's permanent record.

Grading Scale

At Atlantic Health System, the standard grading scale is utilized. (see below)

90 – 100 = A
86 – 89 = B+
82 – 85 = B
78 – 81 = C+
75 – 77 = C

Below 75 = F

Program Evaluation and Assessment by Students

The students are given the opportunity to evaluate the program. These evaluations are confidential and anonymous. The evaluations are discussed with each coordinator or those directly involved in the experience. Results of the evaluations are used to make constructive changes in the curriculum when appropriate. The students are encouraged to discuss any problems with the Program Director as soon possible. Graduates (Alumni) are also surveyed in order to ascertain how well prepared they were for employment.

Students are strongly encouraged to sit for the national certification examination upon completion of this program. **However, successful completion of the Atlantic Health School of Medical Laboratory Science is not linked with or contingent upon sitting for or passing any certification examination.**

Medical Laboratory Science Program – Policies and Procedures

ASCP – Certification Examination

Any student who has completed the hospital-based MLS Program, and has received their baccalaureate degree, is eligible to take the ASCP Board of Certification Examination for the Medical Laboratory Scientist, MLS(ACSP)^{CM} and any examination in which they satisfy the eligibility requirements. Applications may be obtained from the www.ascp.org website. Scores from the above examinations will be sent to the Program Director unless otherwise specified by the student.

Academic Guidance and Counseling

Guidance is available for the following situations:

- To assist students in understanding and observing program policies and practices
- For advising on professional and career issues
- For providing counseling or referral for personal and financial problems that may interfere with progress in the program

Confidentiality and impartiality are maintained in dealing with student problems/issues.

In addition, if a student requests guidance and counseling, it is the student's responsibility to contact the MLS PD to make an appointment and seek counseling. If the student requires academic counseling because of an unsatisfactory grade, the PD will contact the student immediately to determine the root cause and create a mutually agreed academic performance improvement plan.

Acceptable Conduct

The Atlantic Health System has established the following as acceptable ethical conduct:

- The student provides services with respect for the dignity of others, unrestricted by considerations of nationality, race, creed, color, status or physical limitations.
- The student safeguards the individual's right to privacy by judiciously protecting information of a confidential nature, sharing only that information relevant to his/her care. This information is never to be discussed in the presence of the public or outside of the hospital.
- The student must observe high standards of honesty and integrity.
- The principles of truthfulness, fairness and respect for others are fundamental to health care professionals.

- The student's attitude shall not impede his/ her progress and /or the progress of others. Negative attitudes include being uncooperative, belligerent, and chronically complaining.
- The student maintains appropriateness of dress, cleanliness, neatness and good grooming.
- The use of obscene language is degrading and will not be tolerated. Infractions of this policy will result in action by the program officials.
- The student is willing to accept the professional, ethical and moral responsibilities to patients, and other members of the health care team.
- The student demonstrates respect for self as a professional and human being by:
 - Not coming to the laboratory under the influence of intoxicants or narcotics.
 - Not bringing such items to the Hospital, nor using such items during working hours
 - Not stealing or deliberately destroying AHS property
 - Not smoking on AHS properties

Access Rights

The student has the following access rights to his/her file:

- The right to obtain copies of those records. Reproduction is at the expense of the student.
- The right to inspect and review the contents of the records.
- The right to receive a list of the types of educational records maintained by the institution which are directly related to the student.

Accommodation

Any student requiring an accommodation must speak with the Program Director and submit a letter requesting the accommodation from the student's health care provider. All correspondence regarding student accommodations will be treated with the highest level confidentiality as per compliance to HIPAA regulations.

Attendance Policy

Attendance during the clinical year is an academic requirement. Strict adherence to the following policy is required for successful completion of the program. If you will be late or absent for any reason, you are required to contact the appropriate Instructor or Program Director as soon as possible prior to the time you are schedule to arrive. Instances of excessive absenteeism and tardiness will result in disciplinary action. (refer to specific policy on absences vs. tardiness)

Absence

Students cannot have more than 5 days of excused absences. Unexcused absences will result in disciplinary action and all unexcused absences, the class/lab time must be made up by the student, or the student risks failing the course or lab rotation. Also, if excessive time is missed from class and there is failure to improve/correct the absences from class, this behavior may result in probation and possible dismissal from the program.

Cell Phone Usage

The use of cell phones is not permitted in lectures or clinical rotation except at designated break times.

College Transcripts

It is the student's responsibility to arrange for the Registrar to send us a transcript containing those courses recently completed which were not on the transcript at the time of application. Each student was accepted to the program contingent upon the successful completion of courses in progress. This applies for 3+1 and 4+1 students.

Dismissal Policy

Academic dismissal may occur for any of the following reasons:

1. Failure to achieve a 75% or better on three individual didactic tests (in the same course).
2. Failure to achieve 75% or better on a practical following re-examination.
3. Conduct that clearly violates items listed in the Acceptable Conduct section of this handbook, and/ or of the regulation of Atlantic Health System.
4. Violation of attendance policies (excessive absences/tardiness)
5. Cheating on Clinical or Didactic Exams (first offense).

Academic Integrity

AHS- Medical Laboratory Science Program is committed to fostering an intellectual and ethical environment based on the principles of academic integrity. Academic integrity is essential to the success of the MLS Program, its mission and vision. The principles of academic integrity require that a student:

- properly acknowledge and cite all use of the ideas, results, or words of others.
- properly acknowledge all contributors to a given piece of work.
- make sure that all work submitted as his or her own in a course or other academic activity is produced without the aid of impermissible materials or impermissible collaboration.
- obtain all data or results by ethical means and report them accurately without suppressing any results inconsistent with his or her interpretation or conclusions.

- treat all other students in an ethical manner, respecting their integrity and right to pursue their educational goals without interference. This requires that a student neither facilitate academic dishonesty by others nor obstruct their academic progress.
- uphold the canons of the ethical or professional code of the profession for which he or she is preparing.

Adherence to these principles is necessary in order to ensure that

- everyone is given proper credit for his or her ideas, words, results, and other scholarly accomplishments.
- all student work is fairly evaluated and no student has an inappropriate advantage over others.
- the academic and ethical development of all students is fostered.
- the reputation of the University for integrity in its teaching, research, and scholarship is maintained and enhanced.

Failure to uphold these principles of academic integrity threatens both the reputation of the MLS Program and the reputation of Atlantic Health System. Every member of the laboratory faculty and management therefore bears a responsibility for ensuring that the highest standards of academic integrity are upheld.

Zero Tolerance on Cheating on Examinations (Didactic or Clinical)

There is zero tolerance for any student caught cheating/stealing/fabrication of results on an examination. If a student is caught cheating on an exam, it is grounds for immediate dismissal from the MLS Program. This constitutes a violation of academic integrity. The dismissal will be immediate and the student will return their ID badge, empty their locker, be escorted to the entrance of the building and will be asked to leave and not return. If they are a 3+1 student, their school advisor will be notified and this incident will be part of their academic record. They will never be able to have employment with Atlantic Health System. If they are a 4+1 student, the incident will be documented in their MLS School file and they will never be able to have employment with Atlantic Health System.

Dress Code

As part of Atlantic Health's effort to ensure employee behavior meets high standards, employees are expected to be dressed and groomed in a manner that maintains Atlantic Health's positive reputation and professionalism, as well as reflects the organization's concern with hygiene. Every member of the Atlantic Health staff should present a professional, business like and caring image at all times.

The laboratory dress code serves to assure that the laboratory staff looks professional and neat, and to provide appropriate protection for our staff against blood-borne pathogens and chemical hazards.

Dress Code

In keeping with this policy, students are required to wear scrubs in the laboratory. White athletic shoes may be worn but they must be leather not canvas.

LAB COATS (Paper) WILL BE PROVIDED BY THE HOSPITAL AND MUST BE WORN AT ALL TIMES WHILE PERFORMING CLINICAL WORK. Lab coats must be taken off when leaving the lab. A "Clean Lab Coat" only is to be worn outside of the laboratory.

Jeans, Sweats, T-shirts, Stretch pants (leggings), halters (midriiffs), inappropriate skirt length, excessive and/or inappropriate jewelry, canvas sneakers, sandals (flip flops), and open-toe shoes ARE NOT PERMITTED.

Grievance (Appeals) Policy

Students have the right to appeal any decision regarding an unfavorable evaluation, disciplinary action, suspension, or dismissal.

The Appeals Committee will consist of a Laboratory Site Manager and the Laboratory Medical Director.

- The student must submit their appeal to the Program Director in writing within seven (7) days of the action. A description of the disputed action must be included.
- The Program Director will reconsider the decision and notify the student of their final decision within one week.
- If the student is unsatisfied with this decision, he or she may request a hearing by the Appeals Committee.
- Prior to the hearing, the student will be required to discuss the appeals process with the Program Director who will be serving on the committee.
- The Appeals Committee will meet within 14 days and render a decision within seven (7) days of the meeting.
- Depending on the nature of the problem, the Program reserves the right to suspend the student pending the outcome of the hearing.
- **THE DECISION OF THE APPEALS COMMITTEE IS FINAL.**

Identification Badges

Identification badges are an important part of each facility's security program. Regulatory agencies also mandate that patients have a right to know the identification of their caregivers. Therefore, ID badges must be clearly displayed at all times. Students are required to wear their badges when on duty and to display them so that the badges can easily be seen, with the individual's photograph and name clearly visible and easily read.

Internet and Personal Electronic Device Use in the Laboratory

The internet is a valuable tool used in the laboratory. We strongly encourage all students to utilize this tool for appropriate work related functions.

According to Atlantic Health policy, electronic devices (such as PCs in the lab) are only to be used for Atlantic Health business purposes only.

Please note that Atlantic Health monitors all electronic devices, computer systems, internet activity, PC use and computer networks for illegal or unauthorized activity. All activity is tracked. Unauthorized use would include accessing the internet for sending of unauthorized email, games, pornography, or electronic shopping during the operation of school hours.

Should you need the internet for non-work related activity, there are public PCs in the Medical Library.

No cell phones/personal electronic devices are to be used during classroom lecture (and this includes texting, Snap-Chat, Twitter, Facebook and Instagram). Personal electronic devices must not be used while on duty in the laboratory. This includes items such as cell phones, iPods, MP3 players, text message device, anything with ear phones, and Blackberry type devices. These devices are distracting and do not allow you to concentrate on the critical work you do for patients. These devices may be used outside of the lab testing area while not on duty. Pictures may not be taken in the lab without the approval of the Manager or Lab Director.

Lecture Series

Lectures will be presented at one of the sites in AHS. The Program Director will send a schedule in advance to inform students of the topic/time/location of the lecture. The lecture time can vary depending on the course and instructor.

Students will be expected to complete various reading assignments, case studies, study questions and projects during the year. Procedures and lectures are better understood if the reading assignments are done prior to class sessions. There will be use of on-line material in a self-directed learning delivery system. Some lectures use the model of the “flipped classroom” whereby the student reads the lesson at home and performs homework and case study discussion activities in the classroom.

Laboratory Rotations

Students report to assigned laboratory departments on Tuesday, Wednesday, Thursday, and Friday. Hours are often day and evening shifts (time will vary depending on the clinical site). It is the responsibility of the student to contact the clinical coordinator or lead technologist on the Friday before a new rotation starts to confirm the exact time to report. You may be asked to report as early as 6:30 or as late as 8:30 AM for special procedures, instrument set-up or to accommodate an instructor’s work schedule. Note: All times for lecture and clinical practice may change at any time based upon the needs of staff/faculty and the department. Flexibility is key! Due to the needs of patients or the individual laboratory section, the student schedule can be changed at any time at the discretion of the MLS Program Director.

Non-Academic Performance Criteria

Grounds for disciplinary action:

- Excessive tardiness or absenteeism
- Repeated unauthorized absences from the work area
- Refusal to obey instructions given by a supervisor, clinical instructor or other legitimate authority
- Careless or damaging use of equipment or supplies
- Conduct, actions, or language which might embarrass patients, employees, or visitors
- Repeated violations of the dress code
- Other conduct detrimental to the hospital operation or standing in the community or the welfare or safety of patients, employees, or visitors

In keeping with hospital employment policies, the following actions may be grounds for immediate dismissal:

- conduct or actions which might endanger patients, employees, or visitors
- possession or use of intoxicants or unlawful drugs on the hospital premises
- theft of hospital, patient, employee, or visitor property
- fighting on hospital premises
- falsification of laboratory test results (or access)
- unauthorized disclosure of hospital records or patient information

Progressive Disciplinary Procedure/ Academic Probation

The following disciplinary protocol will be followed in cases of unsatisfactory performance.

Verbal warning: May be administered for some act of improper conduct, violation of a rule or regulation, improper performance of an assigned task; acts involving a relatively minor degree of seriousness. The student will be notified that this is a verbal warning, not merely a counseling session.

Written warning: Issued in instances which might ultimately lead to dismissal if the unsatisfactory performance continues. This action will involve a meeting of the student, Program Director and his or her clinical instructor. A written description of the unsatisfactory action will be produced with the length of time allowed for correction and subsequent consequences.

School Hours

Students are required to be in attendance Monday through Friday as scheduled. Lecture hours are generally 8am to 3pm. Clinical hours are generally 7am to 3pm but are dependent upon the area. One half hour is allotted for lunch and students are required to follow their clinical instructor's schedule. Note: Some Clinical practice rotations may be 3pm-11pm, depending on

the needs of the department and staff availability. Classroom/clinical lab hours are always at the discretion of the Program director and can be changed or modified at any time, depending on the needs of the MLS Program, specific clinical laboratory and any issues affecting the quality of patient care.

Tardiness

Tardiness is defined as arrival after instruction is scheduled to begin. The importance of reporting to an educational session cannot be overstated. Tardiness should be considered excessive if there are three episodes of unscheduled tardiness within a month, or a total of five or more within three consecutive months.

In addition, chronic tardiness, even within the allowed time frame, may result in disciplinary action. Failure to improve may result in probation and possible dismissal from the program.

Unscheduled Personal and Sick Days

You must notify the Program Director (PD) by texting the PD at the instructed phone number each day you are out. Personal leave must be scheduled with the Program Director in advance. Please make every effort to schedule appointments, e.g., doctors, lawyers, etc., after school hours or on weekends.

Note: If in a clinical rotation, it is the student's responsibility to notify their specific clinical instructor.

Scheduled Vacations and Holidays

Vacations and holidays are **tentative** and may change at the discretion of the Program Director and the needs of the School of MLS.

Students have all regularly scheduled hospital holidays and a holiday break.

- Thanksgiving
- Day after Thanksgiving
- Christmas
- New Year's
- Memorial Day
- Independence Day
- Labor Day

Snow Policy

The State of NJ may declare a "snow emergency". If such an emergency is declared, a student who cannot report to the hospital will be granted an excused absence. During inclement weather, the student should use discretion in traveling and he/she is urged to call the Program Director for advisement. Under all circumstances, the student must call the Program Director if he/she will be absent.

The Family Education Rights and Privacy Act

As a student enrolled in a post-secondary educational program, you are entitled to the rights enumerated in this act passed in 1974. Please take a few minutes to read the information below.

The Right to Amend Educational Records

A student has the right to request the institution to amend an educational record if he/she believes it to be inaccurate, misleading, or in violation of his privacy or other rights.

Note: This does not apply to numerical or letter grade, only to written comments placed in the student's file.

The educational institution must decide either to comply with the student's request or refuse to amend the record and must notify the student of his right to appeal the decision and have a hearing on this matter. This hearing must be held within a reasonable time. If the institution refuses to change the record, the student has the right to insert a "statement" commenting on the information in the educational records and/or setting forth the reasons for his/her disagreement with the decision of the institution.

These student comments will be permanently attached to the evaluation in question and will become a part of the student's permanent file. If the records are disclosed to a third party, the explanatory statement must also be disclosed.

During a formal hearing, the student must be allowed "full or fair opportunity to present evidence" in support of the request to amend the record. The student has the right to an attorney of his/her choice at his or her own expense to represent them. The educational institution will issue its decision in writing within a reasonable period of time based solely upon the evidence presented at the hearing and shall include a summary of the evidence and the reasons for the decision.

Prior Consent to Disclosure

An institution may not disclose any "personal or identifiable information from educational records" without securing the student's prior consent.

Exceptions: The following parties may have access to records without the student's prior consent:

- a. School officials and faculty
- b. Accrediting agencies

Permanent Student File Contents

The following materials will remain in the student file for a minimum of five (5) years:

1. Application materials
 - transcripts from educational institutions
 - letters of recommendation
 - interview summary sheet
 - applicant summary sheet
 - application
 - essential function form
2. Grade summaries sheets from the clinical year; interim and final transcripts
3. Documentation of academic/non-academic, formal/informal conferences and hearings
4. Any critical incident reports with student comments
5. Releases and transcript requests
6. Record of parties with specific, legitimate interests requesting access to the student's file
7. Record of any honors or recognition

After 5 years the graduate's permanent record will consist of:

1. Application, including college/university transcripts
2. Interim and final program transcripts
3. Record of any honors or recognition
4. Record of transcript requests

These records will be maintained permanently.

These records are currently kept by the Program Director in the Medical Laboratory Science Program Office. Parties with immediate access to these records include program officials and faculty. If a student wishes to make a copy of anything in his/her file, there will be no charge for reproduction.

Program Evaluation and Assessment by Students

The students are given the opportunity to evaluate the program. These evaluations are confidential and anonymous. The evaluations are discussed with each coordinator or those directly involved in the experience. Results of the evaluations are used to make constructive changes in the curriculum when appropriate. The students are encouraged to discuss any problems with the Program Director as soon as possible. Graduates (Alumni) are also surveyed in order to ascertain how well prepared they were for employment.

Students are strongly encouraged to sit for the national certification examination upon completion of this program. However, successful completion of the Atlantic Health School of Medical Laboratory Science is not linked with or contingent upon sitting for or passing any certification examination.

Student Employment Policies

Students may elect to work on a part-time basis in a given laboratory department. These are not student jobs and salary and qualifications have been set by Human Resources. This employment is conducted according to the following criteria:

1. Student employment opportunities are subject to job availability. Students may consult the on-line AHS job posting website. Hiring decisions for positions available will be made by the Coordinator/Manager of that section/lab site.
2. Students must have completed the departmental curriculum relative to the area of employment or must demonstrate an acceptable level of competency in performing the specified tasks involved in the employment area.
3. Assigned tasks are limited to technician level duties.
4. Work must be supervised at all times by a Medical Laboratory Scientist.
5. Employment cannot be conducted during educational hours.
6. Students will be paid an hourly wage for employment as determined by the hospital Department of Human Resources. While employed, "student" status no longer applies and the student will be subject to all policies and regulations applicable to employees of AHS.
7. **Students will not perform service work**, whereby students are substituted for regular staff during their student experience in the program. In addition, service work by students in clinical settings outside of academic hours is prohibited.

Student Service Work Policy

MLS student attendance at the AHS clinical sites is for educational purposes only, meaning that the student is there to practice techniques and develop competencies specified in the Clinical Rotation course syllabi. MLS students are not used for service work at the AHS clinical sites as a substitute for regular staff. However, students do perform clinical laboratory procedures on actual patient samples, but only under the supervision of the clinical faculty. This policy on service work is communicated to all laboratory management at all AHS clinical sites, faculty and advisory board. Also, as part of orientation this is discussed in length by the program director to the students. If at any time, during the internship of the student, the student perceives a violation of the service work policy, the student **MUST** notify immediately the program director by text or phone.

Teach Out – Plan

In an unforeseen disaster or event where the school/program can no longer operate, all didactic materials will be distributed online via the course/computer management system and lectures will be presented online via Adobe Connect or an equally appropriate platform. In addition, students will complete their clinical rotations at one of our affiliated clinical sites and/or at one of New Jersey's four hospital-based programs. The MLS educators in the state of NJ meet twice per year and all MLS program directors have agreed to help out in an unexpected event to ensure the completion of the student's professional education. In the event the MLS Program closes – students will be permitted to finish their educational/clinical experience but no new students will be permitted.

Note: If the Teach-Out Plan ever goes into effect, the Program Director will submit the Teach-Out Plan to NAACLS within 30 days of the official announcement of the closure of the program.

Student Graduation and Commencement

After satisfactorily completing all laboratory and lecture requirements, including all assignments and passing a comprehensive final examination (minimum score of 75%), students will be awarded a Certificate in Medical Laboratory Science from Atlantic Health System, School of Medical Laboratory Science. A completed transcript of (32 credits) will be mailed to the students affiliated college or university (for 3+1 students). A record of all grades is permanently maintained in the student's file. The issuing of a degree (by the student's academic institution) or Hospital MLS Certificate is not contingent upon the student passing any type of external certification or licensure examination.

Note: Any student who fails the comprehensive examination will need to take a makeup comprehensive examination. A student can take the comprehensive examination a maximum of 5 times (as in alignment with ASCP certification examination compliance guidelines regarding the maximum times to pass MLS generalist certification).

Student Parking at AHS Laboratory Sites

Students will be instructed on the location where to park their vehicle while attending class at one of the AHS laboratory sites. In the event students are required to park off site and shuttle to the final destination, the MLS Program will comply with any safety/parking request from the AHS Security Office. Any student requiring an accommodation, handicap, or special need/circumstance must be brought to the attention of MLS Program Director.

Health & Safety of Students, Faculty, and Patients

All students and faculty are assigned mandatory education modules relating to safety of students, faculty and patients. It is required that all students and MLS Program faculty complete the required modules and print out the certificate of completion, The health and safety modules include:

- Emergency Management
- Life Safety
- Security
- Workplace Violence Prevention
- Safety
- Hazardous Materials
- Medical Equipment and Utility Management
- Infection Prevention
- Influenza Seasonal and Pandemic
- Bloodborne Pathogens, TB, Scabies, and Pertussis
- Victim of Abuse
- Advance Directive
- Information Security Awareness
- HIPAA Privacy Awareness
- Corporate Compliance
- Right to be Free

Annual Program Performance

Program Performance Improvement

The following performance outcome measures are criteria that are systematically evaluated annually and are analyzed for program effectiveness. These outcome measures provide valuable information and are used to make program improvements.

Continuous monitoring of program performance for effectiveness and improvement is key for providing students with a quality education and clinical experience in laboratory medicine.

Outcome Measures used in Program Improvement and Effectiveness

1. MLS-ASCP Certification Rates (First Attempt)
2. Graduation Rates
3. Attrition Rates
4. Employment Rates
5. Graduate Surveys (from alumni)
6. Employer Surveys (from employers)
7. Monthly monitoring of failures: lecture examinations (reported to Lab PI committee)
8. Monthly monitoring of failures: clinical laboratory rotations (reported to Lab PI committee)
9. Student surveys of lecture faculty/clinical instructors/program course
10. MLS Program Comprehensive Exam Pass Rate (implemented: 2015)
11. Student Satisfaction Survey @ Program Exit (implemented: 2015)

Published Outcomes for Applicants, Current Students and Prospective Students

Atlantic Health System's School of Medical Laboratory Science achieved the following:

Year	Graduation Rate	Attrition Rate	Employment Rate	ASCP Pass Rate First Attempt
2014-2015	6/6 = 100%	0%	6/6 = 100%	6/6 = 100%
2013-2014	6/6 = 100%	0%	6/6 = 100%	6/6 = 100%
**2012-2013	6/6 = 100%	0%	6/6 = 100%	4/6 = 67%

**** Note:** The new Program Director arrived mid-way into school year, with Class of 201

ASCP Pass Rate (first attempt)	NAACLS Benchmark	School of MLS Outcome
Based Upon a 3 year Rolling Calendar	75%	89%



Medical Laboratory Science Program

Program Administration

Medical Directors

Craig A. Dise, MD, PhD
Jory Magidson, MD

Program Director

Drew J. Minardi, MPA, MA, MT,PBT(ASCP)BB, CQA(ASQ)

Major Program Faculty

Chemistry/ Hematology/Hemostasis

Janice Craig, MS, MT(ASCP)SC, MMC Clinical Lab Specialist, Chemistry Laboratory
Joanne Jack, MT(ASCP)SH, MMC Clinical Lab Specialist, Hematology Laboratory
Nayana Patel, MT(ASCP), MMC- Lead MLS, Core Laboratory
Farida Ong, MT(ASCP)SC, MMC, Clinical Specialist, Donor Services
Drew J. Minardi, MPA, MA, MT,PBT(ASCP)BB, CQA(ASQ), Program Director

Laboratory Operations/Urinalysis and Body Fluids

Janice Craig, MS, MT(ASCP)SC, MMC Clinical Lab Specialist, Chemistry Laboratory
Wael Hassan, MS, MLS(ASCP), OMC-POC Coordinator
Drew J. Minardi, MPA, MA, MT,PBT(ASCP)BB, CQA(ASQ), Program Director

Blood Bank (Transfusion and Donor Services)

Vicki Wille, MT(ASCP)SBB, OMC- Transfusion Services Coordinator
Catherine Nakrosis, MT(ASCP), MMC – Lead MLS, Transfusion Services
Drew J. Minardi, MPA, MA, MT,PBT(ASCP)BB, CQA(ASQ), Program Director

Microbiology/ Immunology/Molecular Diagnostics/Point of Care

Kathy Hummel, MS, MT(ASCP), ACL- Immunology/Molecular Diagnostics Coordinator
Wael Hassan, MS, MLS(ASCP), OMC-POC Coordinator
Nancy Miller, MT(ASCP)SM, ACL- Clinical Microbiologist Specialist, Microbiology
Anmarie Acocella, M(ASCP), ACL – Microbiologist, Microbiology
Cynthia Warner, MT(ASCP)SM, ACL- Lead MLS, Immunology
Jane Francella, MAS, MLS(ASCP)CM, MMC- Laboratory Manager
Drew J. Minardi, MPA, MA, MT,PBT(ASCP)BB, CQA(ASQ), Program Director

Flow Cytometry/FISH

Cynthia Miller, MT(ASCP), ACL-Lead Flow Cytometry MLS



References

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www.ascls.org
2. American Society for Clinical Pathology (ASCP)
www.ascp.org
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4. Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook handbook, 2014-2015 Edition, Medical and Clinical Laboratory Technologists and Technicians
<http://www.bls.gov/ooH/healthcare/medical-and-clinical-laboratory-technologists-and-technicians.htm>
5. National Accrediting Agency for Clinical Laboratory Science
www.naacls.org
6. Rutgers University, *“Policy on Academic Integrity”*, 2015.



Medical Laboratory Science Program

Advisory Board

Member	Relation to the Program
Dr. Jory Magidson	Pathology Director and Medical Director of MLS Program
Drew J. Minardi	Program Director / MLS Program
Jane Francella	MMC Laboratory Manager / Leadership Representative/ MLS Educator
Raymond Monahan	OMC Laboratory Manager / Leadership Representative
Carrie Gallagher	NMC Laboratory Manager / Leadership Representative
Nancy Cicalese	ACL Laboratory Manager/ Past MLS Program Director
Wael Hassan	OMC Representative / Point of Care Coordinator/ MLS Educator
Nancy Olivo	Donor Services Coordinator/ MLS Alumni
Patricia Michalchuk	CMC Laboratory Manager / Leadership Representative
Margaret Zhang	ACL Microbiologist - MLS Alumni – Class of 2013
Cathi Christino	Professional Liaison – Terumo Corporation
Marilyn Rubin	Academic Affiliate – Fairleigh Dickinson University

Laboratory Site Legend

1. MMC: Morristown Medical Center, Morristown- (MLS Program- Administrative Headquarters)
2. OMC: Overlook Medical Center, Summit
3. NMC: Newton Medical Center, Newton
4. CMC: Chilton Medical Center, Pompton Plains
5. ACL: Atlantic Consolidated Laboratory, Morris Plains- (MLS Program- Education Headquarters)