

Medical Laboratory Technician, AAS

Program Features Overview (Course sequencing meant as a guideline for planning)

Northampton Community College (NCC) is partnering with Reading Area Community College (RACC) to offer a cooperative agreement between the two schools to better serve students in the Northampton, Monroe, Wayne and Pike regions who are interested in pursuing a career as a Medical Laboratory Technician. Career pathway requires completion of a Medical Laboratory Technician (MLT) Program which RACC currently offers at the campus in Reading, PA. This collaborative agreement allows students to take all of their general education courses for the MLT program at NCC and then take the core Medical Laboratory Technician courses at RACC. After the students have completed all of their general education courses in the MLT curriculum and met the program admissions requirements at NCC, they would apply to the RACC MLT program by June 1 for a fall start in their second year. The fall semester of their second year would include four courses offered at NCC on Monday, Wednesday, and Friday, and two MLT program courses at RACC on Tuesday and Thursday. In the spring semester of their second year, the students would attend classes at RACC on Monday, and have their clinical rotations on Tuesday through Friday for the entire semester. Students can complete their clinical rotations in clinical facilities located closer to their home, based on clinical affiliation agreements that RACC has in place.

The RACC MLT program is accredited by the National Accrediting Agency for Clinical Laboratory Science. The cooperative agreement also includes “in county” RACC tuition rates for MLT program courses for students from NCC who are enrolled in the MLT program despite their county of residence.

Program Rationale and Outcomes

RACC is the closest community college offering the Medical Laboratory Technician program (48 miles from NCC to RACC per MapQuest). RACC is going to allow students from NCC to receive in-county RACC tuition and fee rates for only those courses not offered at NCC campuses. To address the challenge of transportation for students in the program, the RACC program is designed so students attending from similar locales could carpool together, and students’ clinical rotations are located close to where they reside.

Students will learn:

- The skills necessary for collection and processing of biological specimens.
- The correlation of disease to laboratory test results.
- The ability to perform laboratory tests and report information such as test results, reference ranges and specimen requirements to authorized sources.
- How to operate state-of-the art laboratory equipment utilizing established protocols and quality control checks.

Program Outcomes include, but are not limited to, the following.

Student completing the program will be able to:

- Follow established procedures for collection and processing biological specimens for analysis and perform assigned analytical tests or procedures.
- Recognize factors that affect measurements and results and take appropriate action according to predetermined protocols; recognize abnormal results, correlate them with disease processes, and refer them to designated supervisory personnel.
- Operate instruments within the scope of training utilizing established protocols and quality control checks, recognizing equipment malfunctions and notifying supervisory personnel when appropriate.

- Report information such as test results, reference range and specimen requirements to authorized sources.
- Perform routine quality control and maintain accurate records. Recognize out-of-control results and notify supervisory personnel.
- Demonstrate a professional attitude in interpersonal communication skills with patients, peers, supervisors, other health care professionals and the public.

Admission Requirements

Admission into the clinical portion of the MLT program at RACC is on a selective basis, see selective admission insert from RACC. The RACC application deadline after all general education, math and science courses are completed is June 1 for the second year. This is a guideline, program sequencing and curriculum are subject to change.

Program of Study

This is a suggested sequencing that is subject to change, and is individually scheduled based on student schedules.

Proposed Sequence: Prerequisites: BIOS 107, MATH 140, College Success, complete all required courses with a “C” or better, maintain a cumulative Math/Science GPA of 2.5

Proposed Sequencing

Course	Title	Credits	NCC/RACC
FALL SEMESTER			
COLS 101	College Success	1	NCC
ENGL 101	English I	3	NCC
BIOS 204	Human Anatomy and Physiology I	4	NCC
CHEM 120	General Chemistry	4	NCC
MATH 150	Introduction to Statistics	3	NCC
CISC 101	Introduction to Computers	3	NCC
Semester Total		18 Credits	
SPRING SEMESTER			
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ENGL 151T	English II Technical Writing	3	NCC
BIOS 254	Human Anatomy and Physiology II	4	NCC
MLT 120	Basic Immunology	2	RACC
CHEM201G	Organic Chemistry I	4	NCC
SOCA 103	Principles of Sociology	3	NCC
CHEM 251	Chemistry of Biomolecules	1	Distance RACC
HEA 220	Clinical Implications of Lab Tests	1	Distance RACC
Semester Total		18 Credits	

FALL SEMESTER			
FALL SEMESTER			
CHE 260	Theory of Clinical Instrumentation**	2	RACC
BIOS202	Microbiology for Allied Health	4	NCC
MLT211	Clinical Laboratory Techniques	4	RACC
PHIL202	Ethics and Morals	3	NCC
PSYC103	Introduction to Psychology	3	NCC
Semester Total		16 Credits	
<i>*Full time RACC</i>			
*INTERIM JANUARY SEMESTER (3 Weeks)			
MLT222	Clinical Urinalysis	1	RACC
MLT233	Clinical Serology	1	RACC
Semester Total		2 Credits	
*SPRING SEMESTER (14 Weeks)			
MLT220	Clinical Hematology/Coagulation	5	RACC
MLT231	Clinical Microbiology	4	RACC
MLT221	Clinical Chemistry	4	RACC
MLT230	Clinical Blood Bank	4	RACC
Semester Total		17 Credits	
Total Degree Credits		71 Credits	

Career Potential and Transfer

The program is designed to prepare graduates to enter the workforce upon completing the program. Students can also elect to transfer to a 4 year school to obtain their Medical Laboratory Technologist B.S. Degree from such institutions as East Stroudsburg University, Marywood University, Thomas Jefferson, University of Pennsylvania, and Drexel University.

The RACC MLT Program has excellent pass rates on the licensing exam (96%), graduation rates (100%), and placement rates from 2014-2016 (97.6 %) with 11-15 students graduating annually. There is an active advisory board for the program which is held at RACC with all the clinical affiliates for the program participate.

Of note, NCC had an MLT program and it was discontinued in 1992 due to low enrollment. Since then, the job opportunities have increased and are projected to grow by 13% (U.S.DOL Occupational Outlook, 2018) from 2016 to 2026. The MLT position has been on the high priority occupation list for years and is highly needed in the local healthcare employers due to the aging workforce. (Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Medical and Clinical Laboratory Technologists and Technicians, on the Internet at <https://www.bls.gov/ooh/healthcare/medical-and-clinical-laboratory-technologists-and-technicians.htm> (visited January 30, 2018)

Potential Employers and Appropriate Labor Market Studies

From EMSI data analytics, there are 310 positions that were posted for MLT in the past 2 years for Northeast Pennsylvania. Local employers include doctor offices, hospitals, clinics, and blood centers.

Earnings

The average Medical Laboratory Technician earns \$38,950-\$50,930 per year, averaging \$24.48 per hour.

Certification/Licensure

RACC program is accredited under the National Accrediting Agency for Clinical Laboratory Science and graduating students are eligible to take their national certifying examination to become Registered Medical Laboratory Technicians.