

# Baccalaureate Degree Completion Guidelines for Medical Laboratory Technicians

## Department of Clinical Laboratory Sciences College of Health Professions Virginia Commonwealth University

### ***Program Description***

The Department of Clinical Laboratory Sciences (CLS) at Virginia Commonwealth University (VCU) Medical Center offers a course of study for certified MLTs leading to the Bachelor of Science degree in Clinical Laboratory Sciences. MLTs, who hold an associate degree in medical technology from an accredited community college and are actively certified as medical laboratory technicians, may be granted credit in the undergraduate CLS program for upper-level course requirements through challenge examinations or exemptions based on documented competencies in required laboratory skills. In addition, students who meet the exemption eligibility requirements for the junior level laboratory portions of the curriculum may take the didactic courses online. Both full-time and part-time students are accepted into the program. The degree completion program, including prerequisite courses, requires a total of 125 semester credits, which are earned through course enrollment at VCU, transfer credit from other institutions of higher education, and credits based on documented competencies.

### **I. Admission Requirements**

To be considered for admission to the degree completion program, applicants must submit a completed application package and:

1. Have an associate degree in medical laboratory technology from a NAACLS accredited MLT program.
2. Have a minimum cumulative G.P.A. of 2.0 on a 4.0 scale on all college/university courses completed prior to admission.
3. Submit documentation of active MLT national certification prior to enrollment in the undergraduate Clinical Laboratory Sciences program.
4. Receive satisfactory recommendation from MLT program director.
5. Be interviewed by CLS faculty as a component of the admission process.
6. Have satisfactorily completed a minimum of 44 non-MLT semester hours of transferable credit for admission as a full-time student, 38 non-MLT semester hours for admission as a part-time student. Please refer to the VCU Transfer Guide ([www.transfer.vcu.edu](http://www.transfer.vcu.edu)) to identify transfer equivalencies for courses you have completed at other institutions. The following general education and science prerequisite courses must be completed prior to admission. Examples of transferable courses from the VA Community College System are shown in parentheses.
  - 6 semester credits English composition (e.g., ENG 111, 112).
  - 8 semester credits Biology (e.g., BIO 101, 102, 141, 142, 205; survey courses do not qualify).
  - 8 semester credits Chemistry (e.g., CHM 111, 112; survey courses do not qualify).

- 3 semester credits Mathematics; College Algebra or higher level (e.g., MTH 158, 163, 166).

## II. Completion of Prerequisite Coursework

A total of 60 credits in prerequisite coursework must be completed for the B.S. degree. Once admitted into the baccalaureate program, an MLT is required to complete the remainder of the prerequisite coursework, which may be transferred from another college or university during your studies at VCU **two semesters prior to graduation**. Please refer to the VCU Transfer Guide ([www.transfer.vcu.edu](http://www.transfer.vcu.edu)) to determine VCU course equivalencies. These requirements include:

- an additional *4 semester credits of biology* (total of 12 semester credits).
- an additional *4 semester credits of either organic chemistry (e.g., CHM 241 and 243) or quantitative analysis* lecture and lab (total of 12 semester credits).
- *3 semester credits of humanities* (select from courses in history, philosophy, political science, religion, foreign languages, literature, or art history/arts).
- *3 semester hours of social sciences* (select from courses in anthropology, economics, geography, psychology, sociology or social sciences; may include selected courses in history and political science).

**All pre-requisite coursework must be completed two semesters prior to graduation.**

## III. Curriculum: Junior Year

A. Exemptions: The student is eligible to receive up to 11.0 semester hours through exemptions based on training received in an accredited MLT program.

1. MLT (or eligible) students are exempt from the following course in the Clinical Laboratory Sciences curriculum:

CLLS 337 Clinical Education      1.0 credit hour

2. Exemptions from the laboratory portions of the CLLS 300 level courses are based on grades earned in the MLT program. A student who received a grade of C or above in each course related to a specific discipline in the MLT program will be exempt from the **laboratory portion of the corresponding CLLS course:**

3.

Course No.	Course Title	Lab Credit Hrs.
CLLS 301	Hematology	1.5
CLLS 304	Urine and Body Fluid Analysis	0.5
CLLS 306	Immunohematology	2.0
CLLS 308	Pathologic Microbiology	2.0
CLLS 310	Clinical Immunology	1.0
CLLS 311/312	Clinical Chemistry and Instrumentation I./II.	3.0

\*Please note that this exemption does not apply to CLLS 302 Hematology laboratory.

3. Proficiency credit(s), but no grade, will be recorded on the student's transcript for the exempted course(s) at the completion of the semester in which the course is offered.
4. Exemptions apply only to courses taken within the last 5 years. Courses completed before that time will be evaluated, and the faculty member responsible for the course will have the option of requiring a proficiency test. For guidelines, see the following section on challenge examinations.

B. Challenge Examinations

1. Challenge examinations may be taken for the lecture and/or lab portions of all the junior level courses from which the student is not exempt.
2. Schedule: Challenge examinations are given 1 - 2 weeks prior to the beginning of the semester in which the course is offered.
3. Grading: A grade of  $\geq 70\%$  must be achieved to successfully pass a challenge examination.
4. Proficiency credit(s) but no grade will be recorded on the student's transcript for successfully challenged courses at the completion of the semester in which the course is offered.

**IV. Curriculum: Senior Year**

A. Senior Clinical Rotations

1. Certified MLTs who completed clinical training through an accredited MLT program within the last 5 years and/or the equivalent of at least 2 years of full-time work experience in a clinical laboratory as an MLT within the last 5 years would be permitted to obtain advanced standing (15 credits) for the following courses by passing the Clinical Qualifying Examination (CQE):

CLLS 483 Biochemistry Practicum (3 credits),  
CLLS 485 Hematology Practicum (3 credits),  
CLLS 493 Clinical Microbiology Practicum (3 credits),  
CLLS 494 Miscellaneous Clinical Practicum (3 credits),  
CLLS 496 Blood Bank Practicum (3 credits).

2. A comprehensive Clinical Qualifying Examination will be given each summer. To be eligible, all junior (300) level CLLS coursework must be completed. The exam will be divided into the following sections:
  - Chemistry (to include Toxicology and Instrumentation)
  - Hematology (to include Coagulation and Urinalysis)
  - Microbiology (to include Parasitology)

- Immunohematology
- Immunology
- Urine and Body Fluid Analysis

**A minimum passing grade of 60% in all sections** is required in order to progress in the program.

3. Upon successfully passing the Clinical Qualifying Examination, 15 proficiency credit(s) for the practicum courses, but no grade, will be recorded on the student's transcript during the final semester of the program. Cases in which a student does not pass the qualifying examination after three attempts will be reviewed by the faculty on an individual basis.

**B. Senior Academic Classes**

Senior (400 level) academic courses cannot be challenged. Students are permitted to take two senior courses prior to finishing the junior curriculum and passing the CQE if they achieved a grade of B or higher in all courses relevant to the discipline.

**C. Degree Requirements for All Undergraduate Students**

In accordance with VCU's policy, degree candidates must complete at least 25 percent of the credit semester hours required for their bachelor's degree program at VCU, including at least 30 of the last 45 credits. *For the CLS program, students must complete **31.25 credits** of upper level coursework at VCU.* Thus, students in the degree completion program may obtain a maximum of 34 proficiency credits obtained through exemption or challenge examinations.

**V. *Online Curriculum***

MLTs may complete all didactic coursework using distance-based learning technology. The online courses eliminate the need for students to relocate and allows them to work as they complete the program. This option is restricted to MLTs who are awarded proficiency credits for the laboratory sections of all the junior (300) level CLS courses through exemptions or challenge examinations. Students who choose this route must own a contemporary personal computer equipped with WiFi or Cable internet.

Microscope access is required in order to complete CLS coursework. If the student does not have microscope access in a clinical laboratory, they may utilize the microscopes in the CLS department during normal business hours.

**VI. *Test-Examination Policy***

In addition to the policy stated in the Undergraduate Student Policies and Regulations manual, students will be expected to take all tests or complete assignments on the date specified in the course syllabus  $\pm 1$  day. For example, if a test is scheduled on a Wednesday, the student must complete the test between Tuesday and Thursday. Students must inform the course instructor

of the chosen test date and time one week prior to each scheduled test/exam. No extensions will be granted for any assignment/quiz/exam without acceptable documentation.

## **VII. Proctors**

Students may secure a proctor for tests and exams. Suitable proctors include laboratory supervisors, managers, or directors, as well as testing centers or public libraries. If a proctor is used, the following information must be sent to Mrs. Kaitlin Pierce ([PierceKL2@vcu.edu](mailto:PierceKL2@vcu.edu)) so that a proctor agreement can be established: name of proctor, title, business name and address, phone number, fax number, and an email address. Proctor agreement forms are provided upon student request from Mrs. Pierce. (Please see page 6-7 for an example of the proctor letter and agreement.)

Students may also come to the CLS department for tests/exams. If this is preferred, students must take the test/exam during the regularly scheduled class or contact the respective instructor **one week in advance** to schedule an appointment to complete the test/exam.

Scheduled appointments to complete tests/exams must be made during normal business hours (8:30 am – 4:30 pm). Instructor imposed time limits will determine the latest time a test/exam can be scheduled. For instance, if allotted time for a test is 2 hours, students may not schedule an appointment past 2:30 pm. It is imperative that students arrive on time. Students who arrive past the scheduled appointment time will not be permitted to take the test.

**NOTE:** The faculty reserves the right to add or delete policies as appropriate.

Date

Dear Potential Proctor,

\_\_\_\_\_ (student's name) forwarded your contact information and stated that you were willing to serve as a proctor for tests/exams. I would like to describe what this responsibility entails. At the beginning of each semester, students are given a syllabus for the courses in which they are enrolled. Test dates are included. There is a window of time in which the student must take the test. It is the student's responsibility to work out a day/time within that time frame that is convenient for both of you. When a test is approaching, the instructor for the respective course will email you testing materials and instructions. If you allow internet access at your location, the student may have the option of taking the test through Blackboard (this is course dependent). If internet access is not allowed at your location, the student will take a paper copy.

We ask that the student take the test in a proctored environment, that is, under your supervision. It is expected that no book/notes will be used during this time. In addition, all personal belongings, including cell phones must be put away. The instructors will specify the time allowed to complete the test and if extras, such as calculators are permitted. If the student takes a paper version of the test, we ask that it be faxed upon completion to [\(804\) 828-1911](tel:8048281911). The test cannot leave the building and must remain in your possession until the end of the semester. At that time, the originals can be mailed to the Clinical Laboratory Sciences department or destroyed.

Are you willing to provide this service for the student? If so, please complete and sign the attached form, include the student's name, then email to [PierceKL2@vcu.edu](mailto:PierceKL2@vcu.edu) or fax to (804) 828-1911.

Please feel free to contact me directly with questions or concerns.

Sincerely,

Kaitlin L. Pierce, MS, MLS(ASCP)<sup>CM</sup>

Clinical Coordinator and Director of MLT BS Completion Program

VIRGINIA COMMONWEALTH UNIVERSITY  
COLLEGE OF HEALTH PROFESSIONS  
DEPARTMENT OF CLINICAL LABORATORY SCIENCES

PROCTOR AGREEMENT

Name of Proctor: \_\_\_\_\_

Title: \_\_\_\_\_

Business Name and Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

My signature below indicates that I am willing to serve as a proctor for \_\_\_\_\_  
(Student's Name)  
and will abide by all rules and specifications described in the above memo.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**DEPARTMENT OF CLINICAL LABORATORY SCIENCES  
CURRICULUM FOR BS DEGREE COMPLETION PROGRAM**

***Junior Year***  
**Fall Semester**

	COURSE NAME	LECTURE CREDIT HOURS	LAB CREDIT HOURS	TOTAL
CLLS 301	Hematology	2.0	1.5*	3.5
CLLS 304	Urine and Body Fluid Analysis	1.5	0.5*	2.0
CLLS 307	Intro Path Micro	3.0		3.0
CLLS 310	Cl. Immunology	3.5	1.0*	4.5
CLLS 311	Clin Chemistry/ Instrumentation I	3.0	2.0*	5.0
		13.0		18.0

**Spring Semester**

CLLS 302	Hematology	2.5	1.5	4.0
CLLS 306	Immunoematology	2.5	2.0*	4.5
CLLS 308	Path. Bacteriology	3.0	2.0*	5.0
CLLS 312	Clin. Chemistry & Instrumentation II	4.0	1.0*	5.0
		12.0		18.5

**Summer Semester**

CLLS 337    Clinical Education    1.0 credit\*

\* The student is eligible to receive up to 11.0 semester hours through exemptions based on training received in an accredited MLT program. Exemptions from the laboratory portions of the CLLS 300 level courses are based on grades earned in the MLT program. A student who received a grade of C or above in each course related to a specific discipline in the MLT program will be exempt from the laboratory portion of the corresponding CLLS course. Challenge examinations may be taken for the lecture and/or lab portions of all the junior level courses from which the student is not exempted.

**DEPARTMENT OF CLINICAL LABORATORY SCIENCES  
CURRICULUM *cont.***

***Senior Year***

**Fall Semester – Clinical Practicums**

Certified MLTs who completed clinical training through an accredited MLT program within the last 5 years and/or the equivalent of at least 2 years of full-time work experience in a clinical laboratory as an MLT within the last 5 years would be **permitted to obtain advanced standing (15 credits)** for the following courses by passing the Clinical Qualifying Examination:

CLLS 483	Chemistry	3 credits
CLLS 485	Hematology	3 credits
CLLS 493	Microbiology	3 credits
CLLS 494	Miscellaneous	3 credits
CLLS 496	Blood Bank	3 credits
		15 credits

**Spring Semester**

	<b>COURSE NAME</b>	<b>LECTURE CREDITS</b>
CLLS 407	Inter. Immunohem.	2.5
CLLS 408	Adv. Microbiology	2.0
CLLS 409	Inter. Hematology	2.0
CLLS 410	Adv. Clin. Biochem/Inst.	2.0
CLLS 411	Ed./Management	3.0
CLLS 412	Senior Seminar	1.0
CLLS 438	Research Paper	1.0 (optional)
		12.5-13.5

Revised: July 2014