# Clinical Laboratory Sciences

#### ADDENDUM - 6/25/2024

The B.S. in Clinical Laboratory Sciences (formerly Medical Technology) is a degree accredited by:

The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)

5600 N. River Rd, Suite 720, Rosemont, IL 60018-5119 Telephone (773) 714-8880 or at <a href="http://www.naacls.org/">http://www.naacls.org/</a>

Building upon a foundation of biology and chemistry courses, the Clinical Laboratory Sciences (CLS) Program prepares students to enter the CLS profession through advanced hands-on training in the clinical laboratory sciences.

Upon completion of the program and the achievement of certification and license, clinical laboratory scientists are employed in a variety of health-care settings as laboratory technologists, progressing to supervisory and management positions. A majority of students graduating with this degree work in clinical laboratories. Others may work in research labs, reference labs, public health labs, blood banks, crime labs, or physicians' office labs.

The Medical Laboratory Sciences program has two different tracks to earn a B.S. in Clinical Laboratory Sciences; a traditional B.S. in Clinical Laboratory Sciences and an MLT to MLS B.S. in Clinical Laboratory Sciences.

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# Traditional B.S. in Clinical Laboratory Sciences

## **Admission Requirements**

In addition to the University's general admission requirements as described in the Undergraduate Admissions section of the catalog, students seeking admission to the Medical Laboratory Sciences program must meet additional requirements at the time of application. Upon completion of the prerequisite courses listed below and other graduation requirements, the student is eligible to apply for selection into the clinical year. It should be noted that admission into the Clinical Laboratory Sciences Program's clinical year (19 months) is on a competitive basis and is limited to 40 students per class. The clinical year begins with three semesters of on-campus courses and lab work followed by two semesters of advanced clinical laboratory training at one of the affiliate hospitals. Note that meeting minimum standards does not guarantee admission into the program. Students who complete the prerequisite coursework at another university may apply and be admitted to UWF-based clinical training, provided they meet the selection criteria. The program selection criteria are based on the following:

- A minimum overall GPA of 2.5 on a 4.0 scale
- Completion of General Education requirements

- Completion of all the prerequisite coursework with a grade of "C-" or better
- Submission of a departmental application
- · Personal interview with the selection committee
- · Recommendation letters

The accelerated nature of this program makes it desirable that students entering UWF as juniors have completed the prerequisites or equivalents listed below. Students with deficiencies may need two years to complete the lower division and junior-year prerequisites in order to be eligible for selection into the clinical year.

Upon admission, the MLS student will receive information concerning current UWF MLS requirements for progression to the clinical training courses. These include, but may not be limited to student health physical examination; hospital required immunizations; TB test, criminal background check; Florida training license; proof of health insurance; and drug screen.

#### **Degree Requirements**

A grade of "C" or higher is required in each programmatic course (4000-level courses with an MLS prefix).

## **Progression**

The following requirements must be met to remain and progress in the MLS program track:

- A grade of "C" or higher is required in each programmatic course (4000-level clinical courses with an MLS prefix) and a grade of "C" or higher on clinical lab practical exams.
- Completion of the programmatic coursework within two years of beginning a clinical internship
- Students may only have one MLS course or clinical lab exam grade below a "C." That course and/or clinical lab exam will have to be repeated to make a "C" or better.
- Withdrawing from a course is considered the same as receiving below a "C" in a graded course.
- Students repeating an MLS course must also repeat the corequisite lab.
- While in the program, if the student's criminal status changes, the student must disclose this to the MLS department within three
   (3) business days of the offense. Failure to disclose will result in dismissal from the program. Absolute honesty is essential. Clinical practice facilities have the right to refuse to permit a student to attend practice in their facility due to criminal charges. If a student is denied access to clinical practice, this could result in the inability to complete clinical requirements resulting in a course failure and dismissal from the MLS program.
  - Students who are not enrolled for two or more consecutive semesters will be required to resubmit all criminal background check materials at the time of re-entry.

#### **Program Dismissal**

Dismissal from the program may occur in the following instances:

- Failure to maintain the academic and professional standards specified in the program handbook
- Earning two grades below a "C" in MLS courses or withdrawing from two MLS courses.

#### General Education

In addition to the General Education requirements listed on this page, students must satisfy all additional University requirements, including

the College-Level Communication and Computation, Multicultural, and Foreign Language requirements. With appropriate planning and coordination with an academic advisor, students may satisfy some of the general University requirements through the General Education curriculum. For a complete listing of general degree requirements, refer to the State University Requirements section of this catalog.

#### **General Education Curriculum:**

#### Communication

| ENC 1101 | English Composition I (Core)     | 3 |
|----------|----------------------------------|---|
| ENC 1102 | English Composition II (Breadth) | 3 |

## **Humanities**

Choose one course from Group A (Core) and one additional

| course from either | er Group A or Group B (Breadth)                        |
|--------------------|--|
| Group A (Core)     |  |
| ARH 1000           | Art Appreciation                                       |
| LIT 2000           | Introduction to Literature                             |
| MUL 2010           | Music Appreciation                                     |
| PHI 2010           | Introduction to Philosophy                             |
| THE 2000           | Theatre Appreciation                                   |
| Group B (Breadtl   | h)   |
| AML 2010           | American Literature I                                  |
| AML 2020           | American Literature II                                 |
| ARH 2050           | Western Survey I: Prehistory to the<br>Medieval Period |
| ARH 2051           | Western Survey II: Renaissance to Contemporary         |
| ART 1015C          | Exploring Artistic Vision                              |
| ART 2821           | The Self, Creativity, Your Career and Visual Culture   |
| CRW 2001           | Introduction to Creative Writing                       |
| ENL 2010           | History of English Literature I                        |
| ENL 2020           | History of English Literature II                       |
| IDH 1040           | Honors Core: Humanities                                |
| LIT 2030           | Introduction to Poetry                                 |
| MUH 2930           | The Music Experience: Special Topics                   |
| PHI 2103           | Critical Thinking                                      |
| PHI 2603           | Ethics in Contemporary Society                         |
| REL 1300           | World Religions  |
| SPC 2608           | Public Speaking  |
| THE 2300           | Survey of Dramatic Literature                          |

#### **Mathematics**

Choose one course from Group A (Core) and one Additional course from either Group A or Group B (Breadth)

| Group A (Core)    |                                  |  |  |
|-------------------|----------------------------------|--|--|
| MAC 1105          | College Algebra                  |  |  |
| MAC 1105C         | College Algebra with Lab         |  |  |
| MAC 2311          | Analytic Geometry and Calculus I |  |  |
| MGF 1130          | Mathematical Thinking            |  |  |
| STA 2023          | Elements of Statistics           |  |  |
| Group B (Breadth) |                                  |  |  |
| MAC 1114          | Trigonometry                     |  |  |
| MAC 1140          | Precalculus Algebra              |  |  |
|                   |                                  |  |  |

| MAC 1147 | Precalculus with Trigonometry       |
|----------|-------------------------------------|
| MAC 2233 | Calculus with Business Applications |
| MAC 2312 | Analytic Geometry and Calculus II   |
| MGF 1131 | Mathematics in Context              |
| STA 2360 | Introduction to Data Science        |

#### **Natural Sciences**

Choose one course from Group A (Core) and one additional course from either Group A or Group B (Breadth)

|                            | er Group A or Group B (Breadtn)                   |
|----------------------------|---|
| Group A (Core)<br>AST 1002 | Descriptive Astronomy                             |
| BSC 1005                   | General Biology for Non-Majors                    |
| BSC 1005                   | *   |
|                            | Anatomy and Physiology I                          |
| BSC 2010                   | Biology I   |
| CHM 1020                   | Concepts in Chemistry                             |
| CHM 2045                   | General Chemistry I                               |
| ESC 2000                   | Introduction to Earth Science                     |
| EVR 2001                   | Introduction to Environmental Science             |
| GLY 2010                   | Physical Geology                                  |
| PHY 1020                   | Conceptual Physics                                |
| PHY 2048                   | Calculus-Based Physics I , , ,                    |
| PHY 2048C                  | Calculus-Based Physics I Studio                   |
| PHY 2053                   | Algebra-Based Physics I *, **                     |
| Group B (Breadt            | h)  |
| ANT 2511                   | Biological Anthropology *                         |
| AST 2037                   | Life in the Universe                              |
| BOT 2010                   | General Botany                                    |
| BSC 1050                   | Fundamentals of Ecology                           |
| BSC 1086                   | Anatomy and Physiology II *                       |
| BSC 2011                   | Biology II  |
| BSC 2311                   | Introduction to Oceanography and Marine Biology * |
| CGS 2020                   | Introduction to Machine Learning                  |
| CHM 2046                   | General Chemistry II *                            |
| CIS 2530                   | Introduction to Cybersecurity                     |
| IDH 1043                   | Honors Core: Natural Sciences                     |
| MCB 1000                   | Fundamentals of Microbiology *                    |
| PHC 2082                   | Informatics and Your Health                       |
| PHY 2049                   | Calculus-Based Physics II *, ***                  |
| PHY 2054                   | Algebra-Based Physics II *, **                    |

- \* May be taken with or without lab.
- \*\* Algebra-Based Physics is usually recommended for non-science majors, while Calculus-Based Physics is recommended for science majors.
- \*\*\*Although students receive 5 semester hours credit for PHY 2048C, an additional 3 semester science course will be needed to meet General Education requirements.

#### Social Sciences

Choose one course from Group A (Core) and one additional course from either Group A or Group B (Breadth)

Group A (Core)

AMH 2010 United States to 1877 6

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| AMH 2020       | United States Since 1877                           |
|----------------|--|
| ANT 2000       | Introduction to Anthropology                       |
| ECO 2013       | Principles of Economics Macro                      |
| POS 2041       | American Politics                                  |
| PSY 2012       | General Psychology                                 |
| Group B (Bread | th)  |
| ANT 2100       | Introduction to Archaeology                        |
| ANT 2400       | Current Cultural Issues                            |
| CCJ 2002       | Survey of Crime and Justice                        |
| COM 2023       | Death and Communication                            |
| CPO 2002       | Comparative Politics                               |
| DEP 2004       | Human Development Across the Lifespan              |
| EUH 1000       | Western Perspectives I                             |
| EUH 1001       | Western Perspectives II                            |
| FIN 2104       | Personal Financial Planning                        |
| GEA 2000       | Nations and Regions of the World                   |
| GEB 1011       | Introduction to Business                           |
| HIS 2050       | Explore History: Special Topics                    |
| IDH 1041       | Honors Core: Social Sciences                       |
| INR 2002       | International Politics                             |
| MMC 2000       | Principles of Mass Communication                   |
| PLA 2013       | Survey of American Law                             |
| SOW 2192       | Understanding Relationships in the 21st<br>Century |
| SPM 2010       | Sport in Global Society                            |
| SYG 2000       | Introduction to Sociology                          |
| SYG 2010       | Current Social Problems                            |

#### **General Education Electives**

Choose an additional course from two of the five areas of Communication, Mathematics, Social Sciences, Humanities, and Natural Sciences.

# Multicultural Requirement Multicultural Courses

# An important component of a liberal education is the study of cultures other than one's own. As such, multiculturalism encompasses the appreciation of the values, expressions, and modes of organization of diverse cultural communities. To further such study, the University of West Florida requires all students pursuing a bachelor's degree to complete at least one course that explores one or more of the dimensions of another culture (language, religion, socio-economic structures, etc.). Students are exempt from this requirement if they

have completed an A.A. degree, the general education program at a

The requirement is satisfied by the successful completion of a multicultural course designated on the following list. Several of the selections are General Education courses, and students may enroll in these to meet both the General Education and the multicultural requirements.

Florida public institution, or a baccalaureate degree.

This list is continually updated and students are encouraged to check with their advisors for alternative options.

| AML 2010 | American Literature I  | 3 |
|----------|------------------------|---|
| AML 2020 | American Literature II | 3 |

| AML 3604 | African American Literature                               | 3 |
|----------|---|---|
| AML 3624 | Black Women Writers                                       | 3 |
| AML 4015 | Topics in Nineteenth-Century American<br>Literature       | 3 |
| AML 4640 | Topics in Native American Literature                      | 3 |
| ANT 1001 | Anthropology as a Profession                              | 1 |
| ANT 2000 | Introduction to Anthropology                              | 3 |
| ANT 2301 | Human Sexuality and Culture                               | 3 |
| ANT 3212 | Peoples and Cultures of the World                         | 3 |
| ANT 3312 | North American Indians                                    | 3 |
| ANT 3363 | Japanese Culture  | 3 |
| ANT 4006 | Anthropology of Human Rights                              | 3 |
| ANT 4025 | Ritual Use of Human Remains                               | 3 |
| ANT 4403 | Environmental Anthropology                                | 3 |
| ANT 4516 | Modern Human Physical Variation                           | 3 |
| ARH 1000 | Art Appreciation  | 3 |
| ARH 2050 | Western Survey I: Prehistory to the                       | 3 |
|          | Medieval Period   |   |
| ARH 3201 | Art and Culture in The Global Middle Ages                 | 3 |
| ARH 2051 | Western Survey II: Renaissance to Contemporary            | 3 |
| ARH 3590 | Non-Western Art   | 3 |
| ARH 3607 | Native American Art                                       | 3 |
| ARH 4412 | The Age of Revolution to Romanticism in Europe: 1750-1850 | 3 |
| ARH 4450 | Modern Art: 1850-1980                                     | 3 |
| ARH 4470 | Contemporary Art  | 3 |
| ARH 4563 | Art of Japan  | 3 |
| CCJ 3678 | Race, Gender, Ethnicity, and Crime                        | 3 |
| COM 3014 | Gender Communication                                      | 3 |
| COM 3461 | Intercultural Communication                               | 3 |
| COM 4242 | Communication and Christianity                            | 3 |
| CPO 2002 | Comparative Politics                                      | 3 |
| CRW 2001 | Introduction to Creative Writing                          | 3 |
| EDF 2085 | Teaching Diverse Populations                              | 3 |
| ENG 4013 | Introduction to Literary Theory                           | 3 |
| ENL 2020 | History of English Literature II                          | 3 |
| EUH 1000 | Western Perspectives I                                    | 3 |
| EUH 1001 | Western Perspectives II                                   | 3 |
| EUH 3334 | Emperors, Sultans, Dictators, and                         | 3 |
|          | Democrats: The Balkans                                    | _ |
| EUH 3411 | Rome and the Mediterranean World                          | 3 |
| EUH 3576 | Soviet Union since 1917                                   | 3 |
| FOL 3501 | Global Cinema   | 3 |
| GEA 2000 | Nations and Regions of the World                          | 3 |
| GEB 4361 | International Business                                    | 3 |
| GEO 3421 | Cultural Geography  | 3 |
| GEO 3471 | Geography of World Affairs                                | 3 |
| HSC 2622 | Introduction to Global Health Sciences                    | 3 |
| HIS 2050 | Explore History: Special Topics                           | 3 |
| HIS 4262 | Rise and Fall of the Portuguese Empire                    | 3 |
| IDH 1040 | Honors Core: Humanities                                   | 3 |
| IDH 1041 | Honors Core: Social Sciences                              | 3 |
| .2       |   | J |

<sup>\*\*</sup>Passed by UWF Faculty Senate on 11/08/2002

| INR 2002 | International Politics  | 3 |
|----------|---|---|
| LAH 4135 | Spanish Conquest of the Americas  | 3 |
| LAH 4131 | 'Atlantic Indians': How Indigenous and<br>African Peoples Shaped Europe & the<br>Americas | 3 |
| LAH 4451 | Greater Mexico: Central America from<br>Conquest to the 20th Century                      | 3 |
| LAH 4728 | Gender and Sexuality in Latin America from Colonization to Today                          | 3 |
| LIT 2000 | Introduction to Literature  | 3 |
| LIT 2030 | Introduction to Poetry  | 3 |
| LIT 4036 | Topics in Poetry and Poetics  | 3 |
| LIT 4385 | Feminist Theory   | 3 |
| MAN 4102 | Management of Diversity   | 3 |
| MAR 4156 | Seminar in International Marketing  | 3 |
| MMC 3743 | Communicating Fear: Horror Films and Popular Culture                                      | 3 |
| MMC 3745 | Communicating Fear Abroad: International Horror Films & Popular Culture                   | 3 |
| MMC 4601 | Minorities and the Mass Media   | 3 |
| MUH 2930 | The Music Experience: Special Topics  | 3 |
| MUL 2010 | Music Appreciation  | 3 |
| NUR 4615 | Patient Centered Population Health  | 3 |
| NUR 4636 | Population-based Public Health Nursing  | 3 |
| PHI 3790 | African Philosophy  | 3 |
| PUR 3404 | International Public Relations  | 3 |
| PSY 3860 | Positive Psychology   | 3 |
| SOP 3730 | Psychology, Culture, and Society  | 3 |
| SOW 4233 | Human Diversity and Social Justice  | 3 |
| SPN 3400 | Advanced Stylistics   | 3 |
| SPN 4520 | Latin American Culture and Civilization   | 3 |
| SYO 4421 | Sociology of Health, Illness and Health Care  | 3 |
| SYO 4530 | Inequality in America   | 3 |
|          |   |   |

# **Civic Literacy Requirement**

The 2017 Florida Legislature amended Section 1007.25, Florida Statutes, to require students *initially entering* a State University System (SUS) and/or Florida College System (FCS) institution in 2018-2019 and thereafter to demonstrate competency in civic literacy. The 2021 Legislature further amended Florida Statutes, requiring students to complete both a civic literacy course and an exam. As a result, there are three cohorts of students currently matriculating at Florida public institutions subject to varying requirements. As demonstrated in the table below, the exact civic literacy requirements are based on the academic term in which a student first enrolled in a Florida public institution.

| Students Included in Cohort   | Civic Literacy Competency<br>Requirement                             |
|---|--|
| Cohort 1: Students first entering the SUS or FCS prior to fall 2018                 | None   |
| Cohort 2: Students first entering<br>the SUS or FCS in fall 2018 –<br>summer A 2021 | Complete a course <b>or</b> exam (course options AMH 2020, POS 2041) |

| Cohort 3: Students first entering | Complete both a course and     |
|-----------------------------------|--------------------------------|
| the SUS or FCS in summer B        | exam (course options AMH 2020, |
| 2021 (on or after July 1, 2021)   | POS 2041)                      |
| and thereafter                    |                                |

Additionally, the 2021 Legislature made two additional exceptions: approving the use of accelerated mechanisms for meeting the course competency requirement and exempting high school students who pass the Florida Civic Literacy Exam in high school from the postsecondary exam requirement. These two changes are in effect for Cohort 3.

There are multiple ways to satisfy this requirement. Students should work with their academic advisor to determine which option is best for their degree requirements/degree plan.

Additional information can be found on our <u>Civic Literacy</u> website, SUS regulation <u>BOG 8.006</u> and Florida Statute <u>s.1007.25(4,a-b)</u>.

# **Mathematics Pathway**

Students are advised to complete the following courses to fulfill the mathematics pathway that aligns with the mathematics skills needed for success in their program and their career goals. Students should refer to their academic advisor for questions about the math pathway for their program. For information about this requirement, refer to the catalog page for <a href="Mathematics Pathways">Mathematics Pathways</a>. These courses may also fulfill requirements for General Education and Common Prerequisites.

Algebra through Calculus

| Students will be placed on a starting point based on their |                        |   |  |
|--|------------------------|---|--|
| mathematics placement.                                     |                        |   |  |
| MAC 1105   | College Algebra        | 3 |  |
| or MAC 1105CCollege Algebra with Lab                       |                        |   |  |
| STA 2023   | Elements of Statistics | 3 |  |

# **Common Prerequisites**

State-mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. See the <u>Common Prerequisite Manual</u> for course substitutions from Florida colleges and universities.

| Total Hours |                                    | 31 |
|-------------|------------------------------------|----|
| BSC 2010+L  | Biology I (+Lab) *                 | 4  |
| STA 2023    | Elements of Statistics *           | 3  |
| MCB 3020+L  | Microbiology (+Lab)                | 4  |
| CHM 2210+L  | Organic Chemistry I (+Lab)         | 4  |
| CHM 2046+L  | General Chemistry II (+Lab) *      | 4  |
| CHM 2045+L  | General Chemistry I (+Lab) *       | 4  |
| BSC 1086+L  | Anatomy and Physiology II (+Lab) * | 4  |
| BSC 1085+L  | Anatomy and Physiology I (+Lab) *  | 4  |

Indicates common prerequisites which can be used to satisfy General Education requirements.

## Major

| MLS 4191+L | Molecular Diagnostics (+Lab) +    | 4 |
|------------|-----------------------------------|---|
| MLS 4505+L | Clinical Immunology (+Lab) +      | 4 |
| MLS 4220+L | Urinalysis/Body Fluids I (+Lab) + | 2 |
| MLS 4305+L | Hematology I (+Lab) +             | 4 |

| <b>Total Hours</b> |  | 55 |
|--------------------|--|----|
| MLS 4825L          | Urinalysis/Body Fluids II <sup>+</sup> | 2  |
| MLS 4824L          | Special Clinical Methods +             | 2  |
| MLS 4823L          | Immunohematology II <sup>+</sup>       | 4  |
| MLS 4822L          | Hematology II <sup>+</sup>             | 4  |
| MLS 4821L          | Diagnostic Microbiology II +           | 4  |
| MLS 4820L          | Clinical Chemistry III +               | 4  |
| MLS 4705           | Special Clinical Topics +              | 1  |
| MLS 4630+L         | Clinical Chemistry II (+Lab) +         | 3  |
| MLS 4625+L         | Clinical Chemistry I (+Lab) +          | 3  |
| MLS 4550+L         | Immunohematology I (+Lab) +            | 4  |
| MLS 4462+L         | Medical Microbiology (+Lab) +          | 4  |
| MLS 4460+L         | Diagnostic Microbiology I (+Lab) +     | 4  |
| MLS 4334+L         | Hemostasis and Thrombosis (+Lab) +     | 2  |

+ Courses included in the major GPA.

# **Major-Related**

| Total Hours |  | 12 |
|-------------|--|----|
| or MLS 3194 | Clinical Genetics                                    |    |
| PCB 3063    | Genetics   | 3  |
| or MLS 3621 | Clinical Biochemistry                                |    |
| BCH 3033    | Biochemistry I                                       | 3  |
| HSC 3555    | Pathophysiology                                      | 3  |
| MLS 3032C   | Applications in Clinical and Biotech<br>Laboratories | 3  |

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# Clinical Laboratory Sciences MLT to MLS

# **Program Requirements**

Upon completion of the program and the achievement of certification and license, medical laboratory scientists are employed in a variety of healthcare settings, progressing to supervisory and management positions. A majority of students graduating with this degree will work in clinical and military laboratories. Others will work in research labs, reference labs, public-health labs, blood banks, crime labs, physicians' office labs, and so on. Medical Laboratory Technicians (MLT) with an Associate's degree in Clinical Laboratory Sciences that included a training internship and who are credentialed by the American Society for Clinical Pathology (ASCP), American Medical Technologists (AMT) or American Association of Bioanalysts (AAB) as a Medical Laboratory Technician qualify for admission into the Clinical Laboratory Sciences MLT to MLS specialization.

 Not all states authorize online programs, if you are residing outside of Florida you will want to check the status of your state's acceptance of this program: <u>UWF State Authorization</u> <u>Status</u>. Some U.S. states have special training requirements. Students seeking state licensure in California and New York may need to complete additional training hours to comply with state license requirements.

This program will not meet immigration requirements for students holding an F1 or J1 Visa to maintain status. Contact <u>International</u> Affairs for further information.

Acceptance to the University does not constitute admission to the upper-division Clinical Laboratory Sciences program. Students entering UWF who declare a major in Clinical Laboratory Sciences will automatically be placed in a pending status until they meet the requirements for admission. At the time of admission to the university, potential students must already have completed an MLT program that includes clinical training courses and are currently certified as a generalist MLT (ASCP, AMT, AAB, cannot be provisional).

# **Admission Requirements**

In addition to the University's general admission requirements, students in the MLT to MLS specialization program must meet the following requirements at the time of application:

- Associate of Science in Medical Laboratory Technology degree from a NAACLS or ABHES accredited program and completion of the general education, common, and upper-division prerequisites of the program; or military training as a Medical Laboratory Technician, ASCP certified, and completed an Associate of Arts degree and the general education, common, and upper-division prerequisites of the program.
  - The MLT program must include clinical training courses.
- Minimum overall GPA of 2.5 on a 4.0 scale.
- Completion of all the prerequisite coursework with a grade of "C-" or better.
- A grade of "C" or higher is required in each programmatic course (4000-level clinical courses with an MLS prefix).
- Two years of full-time work as an MLT in the last 5 years.
  - If graduated in the last year from an accredited program, must be working at the time of acceptance into the MLT to MLS program.
- Current certification as an MLT by ASCP, AMT, or AAB.
  - · Cannot be provisional.
- · Submission of a departmental application.
- · Recommendation letters as requested.

# **Progression Requirements**

- A grade of "C" or higher is required in each programmatic course (4000-level clinical courses with an MLS prefix).
- Students may only have one 4000-level MLS course grade below a "C" and will have to repeat the course successfully.
- Withdrawing from a course is considered the same as receiving below a "C" in a graded course.

Dismissal from the program may occur in the following instances:

- Failure to maintain the academic and professional standards specified in the program handbook.
- Earning two grades below a "C" in programmatic coursework or withdrawing from two programmatic courses.

#### **General Education**

In addition to the General Education requirements listed on this page, students must satisfy all additional University requirements, including the College-Level Communication and Computation, Multicultural, and Foreign Language requirements. With appropriate planning and

coordination with an academic advisor, students may satisfy some of the general University requirements through the General Education curriculum. For a complete listing of general degree requirements, refer to the <u>State University Requirements</u> section of this catalog.

#### **General Education Curriculum:**

#### Communication

| ENC 1101 | English Composition I (Core)     | 3 |
|----------|----------------------------------|---|
| ENC 1102 | English Composition II (Breadth) | 3 |

#### **Humanities**

Choose one course from Group A (Core) and one additional 6 course from either Group A or Group B (Breadth)

| course from either | er Group A or Group B (Breadth)                      |
|--------------------|--|
| Group A (Core)     | , , , ,  |
| ARH 1000           | Art Appreciation                                     |
| LIT 2000           | Introduction to Literature                           |
| MUL 2010           | Music Appreciation                                   |
| PHI 2010           | Introduction to Philosophy                           |
| THE 2000           | Theatre Appreciation                                 |
| Group B (Breadth   | n)   |
| AML 2010           | American Literature I                                |
| AML 2020           | American Literature II                               |
| ARH 2050           | Western Survey I: Prehistory to the Medieval Period  |
| ARH 2051           | Western Survey II: Renaissance to Contemporary       |
| ART 1015C          | Exploring Artistic Vision                            |
| ART 2821           | The Self, Creativity, Your Career and Visual Culture |
| CRW 2001           | Introduction to Creative Writing                     |
| ENL 2010           | History of English Literature I                      |
| ENL 2020           | History of English Literature II                     |
| IDH 1040           | Honors Core: Humanities                              |
| LIT 2030           | Introduction to Poetry                               |
| MUH 2930           | The Music Experience: Special Topics                 |
| PHI 2103           | Critical Thinking                                    |
| PHI 2603           | Ethics in Contemporary Society                       |
| REL 1300           | World Religions                                      |
| SPC 2608           | Public Speaking                                      |
| THE 2300           | Survey of Dramatic Literature                        |
|                    |  |

# **Mathematics**

Choose one course from Group A (Core) and one Additional 6 course from either Group A or Group B (Breadth)

| course from either Group A or Group B (Breadth) |                                     |  |
|---|-------------------------------------|--|
| Group A (Core)                                  |                                     |  |
| MAC 1105  | College Algebra                     |  |
| MAC 1105C                                       | College Algebra with Lab            |  |
| MAC 2311  | Analytic Geometry and Calculus I    |  |
| MGF 1130  | Mathematical Thinking               |  |
| STA 2023  | Elements of Statistics              |  |
| Group B (Breadt                                 | h)                                  |  |
| MAC 1114  | Trigonometry                        |  |
| MAC 1140  | Precalculus Algebra                 |  |
| MAC 1147  | Precalculus with Trigonometry       |  |
| MAC 2233  | Calculus with Business Applications |  |

| MAC 2312 | Analytic Geometry and Calculus II |
|----------|-----------------------------------|
| MGF 1131 | Mathematics in Context            |
| STA 2360 | Introduction to Data Science      |

6

6

#### **Natural Sciences**

Choose one course from Group A (Core) and one additional course from either Group A or Group B (Breadth)

| course from eit | ther Group A or Group B (Breadth)                 |
|-----------------|---|
| Group A (Core   | )   |
| AST 1002        | Descriptive Astronomy                             |
| BSC 1005        | General Biology for Non-Majors *                  |
| BSC 1085        | Anatomy and Physiology I *                        |
| BSC 2010        | Biology I   |
| CHM 1020        | Concepts in Chemistry *                           |
| CHM 2045        | General Chemistry I *                             |
| ESC 2000        | Introduction to Earth Science *                   |
| EVR 2001        | Introduction to Environmental Science             |
| GLY 2010        | Physical Geology                                  |
| PHY 1020        | Conceptual Physics                                |
| PHY 2048        | Calculus-Based Physics I *, **                    |
| PHY 2048C       | Calculus-Based Physics I Studio ***               |
| PHY 2053        | Algebra-Based Physics I *, **                     |
| Group B (Brea   | dth)  |
| ANT 2511        | Biological Anthropology *                         |
| AST 2037        | Life in the Universe                              |
| BOT 2010        | General Botany                                    |
| BSC 1050        | Fundamentals of Ecology                           |
| BSC 1086        | Anatomy and Physiology II *                       |
| BSC 2011        | Biology II  |
| BSC 2311        | Introduction to Oceanography and Marine Biology * |
| CGS 2020        | Introduction to Machine Learning                  |
| CHM 2046        | General Chemistry II *                            |
| CIS 2530        | Introduction to Cybersecurity                     |
| IDH 1043        | Honors Core: Natural Sciences                     |
| MCB 1000        | Fundamentals of Microbiology *                    |
| PHC 2082        | Informatics and Your Health                       |
| PHY 2049        | Calculus-Based Physics II *,**                    |
| PHY 2054        | Algebra-Based Physics II *, **                    |

- \* May be taken with or without lab.
- \*\* Algebra-Based Physics is usually recommended for non-science majors, while Calculus-Based Physics is recommended for science majors.
- \*\*\*Although students receive 5 semester hours credit for PHY 2048C, an additional 3 semester science course will be needed to meet General Education requirements.

#### **Social Sciences**

Choose one course from Group A (Core) and one additional course from either Group A or Group B (Breadth)

Group A (Core)

| Croup / (Corc) |                              |
|----------------|------------------------------|
| AMH 2010       | United States to 1877        |
| AMH 2020       | United States Since 1877     |
| ANT 2000       | Introduction to Anthropology |

| ECO 2013         | Principles of Economics Macro                      |
|------------------|--|
| POS 2041         | American Politics                                  |
| PSY 2012         | General Psychology                                 |
| Group B (Breadtl | h)   |
| ANT 2100         | Introduction to Archaeology                        |
| ANT 2400         | Current Cultural Issues                            |
| CCJ 2002         | Survey of Crime and Justice                        |
| COM 2023         | Death and Communication                            |
| CPO 2002         | Comparative Politics                               |
| DEP 2004         | Human Development Across the Lifespan              |
| EUH 1000         | Western Perspectives I                             |
| EUH 1001         | Western Perspectives II                            |
| FIN 2104         | Personal Financial Planning                        |
| GEA 2000         | Nations and Regions of the World                   |
| GEB 1011         | Introduction to Business                           |
| HIS 2050         | Explore History: Special Topics                    |
| IDH 1041         | Honors Core: Social Sciences                       |
| INR 2002         | International Politics                             |
| MMC 2000         | Principles of Mass Communication                   |
| PLA 2013         | Survey of American Law                             |
| SOW 2192         | Understanding Relationships in the 21st<br>Century |
| SPM 2010         | Sport in Global Society                            |
| SYG 2000         | Introduction to Sociology                          |
| SYG 2010         | Current Social Problems                            |

#### **General Education Electives**

Choose an additional course from two of the five areas of Communication, Mathematics, Social Sciences, Humanities, and Natural Sciences.

# Multicultural Requirement Multicultural Courses

An important component of a liberal education is the study of cultures other than one's own. As such, multiculturalism encompasses the appreciation of the values, expressions, and modes of organization of diverse cultural communities. To further such study, the University of West Florida requires all students pursuing a bachelor's degree to complete at least one course that explores one or more of the dimensions of another culture (language, religion, socio-economic structures, etc.). Students are exempt from this requirement if they have completed an A.A. degree, the general education program at a Florida public institution, or a baccalaureate degree.

The requirement is satisfied by the successful completion of a multicultural course designated on the following list. Several of the selections are General Education courses, and students may enroll in these to meet both the General Education and the multicultural requirements.

\*\*Passed by UWF Faculty Senate on 11/08/2002

This list is continually updated and students are encouraged to check with their advisors for alternative options.

| AML 2010 American Literature I       | 3 |
|--------------------------------------|---|
| AML 2020 American Literature II      | 3 |
| AML 3604 African American Literature | 3 |
| AML 3624 Black Women Writers         | 3 |

| AML 4015 | Topics in Nineteenth-Century American<br>Literature         | 3 |
|----------|---|---|
| AML 4640 | Topics in Native American Literature                        | 3 |
| ANT 1001 | Anthropology as a Profession                                | 1 |
| ANT 2000 | Introduction to Anthropology                                | 3 |
| ANT 2301 | Human Sexuality and Culture                                 | 3 |
| ANT 3212 | Peoples and Cultures of the World                           | 3 |
| ANT 3312 | North American Indians                                      | 3 |
| ANT 3363 | Japanese Culture  | 3 |
| ANT 4006 | Anthropology of Human Rights                                | 3 |
| ANT 4025 | Ritual Use of Human Remains                                 | 3 |
| ANT 4403 | Environmental Anthropology                                  | 3 |
| ANT 4516 | Modern Human Physical Variation                             | 3 |
| ARH 1000 | Art Appreciation  | 3 |
| ARH 2050 | Western Survey I: Prehistory to the<br>Medieval Period      | 3 |
| ARH 3201 | Art and Culture in The Global Middle Ages                   | 3 |
| ARH 2051 | Western Survey II: Renaissance to                           | 3 |
|          | Contemporary  |   |
| ARH 3590 | Non-Western Art   | 3 |
| ARH 3607 | Native American Art   | 3 |
| ARH 4412 | The Age of Revolution to Romanticism in Europe: 1750-1850   | 3 |
| ARH 4450 | Modern Art: 1850-1980                                       | 3 |
| ARH 4470 | Contemporary Art  | 3 |
| ARH 4563 | Art of Japan  | 3 |
| CCJ 3678 | Race, Gender, Ethnicity, and Crime                          | 3 |
| COM 3014 | Gender Communication  | 3 |
| COM 3461 | Intercultural Communication                                 | 3 |
| COM 4242 | Communication and Christianity                              | 3 |
| CPO 2002 | Comparative Politics  | 3 |
| CRW 2001 | Introduction to Creative Writing                            | 3 |
| EDF 2085 | Teaching Diverse Populations                                | 3 |
| ENG 4013 | Introduction to Literary Theory                             | 3 |
| ENL 2020 | History of English Literature II                            | 3 |
| EUH 1000 | Western Perspectives I                                      | 3 |
| EUH 1001 | Western Perspectives II                                     | 3 |
| EUH 3334 | Emperors, Sultans, Dictators, and<br>Democrats: The Balkans | 3 |
| EUH 3411 | Rome and the Mediterranean World                            | 3 |
| EUH 3576 | Soviet Union since 1917                                     | 3 |
| FOL 3501 | Global Cinema   | 3 |
| GEA 2000 | Nations and Regions of the World                            | 3 |
| GEB 4361 | International Business                                      | 3 |
| GEO 3421 | Cultural Geography  | 3 |
| GEO 3471 | Geography of World Affairs                                  | 3 |
| HSC 2622 | Introduction to Global Health Sciences                      | 3 |
| HIS 2050 | Explore History: Special Topics                             | 3 |
| HIS 4262 | Rise and Fall of the Portuguese Empire                      | 3 |
| IDH 1040 | Honors Core: Humanities                                     | 3 |
| IDH 1041 | Honors Core: Social Sciences                                | 3 |
| INR 2002 | International Politics                                      | 3 |
| LAH 4135 | Spanish Conquest of the Americas                            | 3 |
|          |   |   |

| LAH 4131 | 'Atlantic Indians': How Indigenous and<br>African Peoples Shaped Europe & the<br>Americas | 3 |
|----------|---|---|
| LAH 4451 | Greater Mexico: Central America from<br>Conquest to the 20th Century                      | 3 |
| LAH 4728 | Gender and Sexuality in Latin America from Colonization to Today                          | 3 |
| LIT 2000 | Introduction to Literature  | 3 |
| LIT 2030 | Introduction to Poetry  | 3 |
| LIT 4036 | Topics in Poetry and Poetics  | 3 |
| LIT 4385 | Feminist Theory   | 3 |
| MAN 4102 | Management of Diversity   | 3 |
| MAR 4156 | Seminar in International Marketing  | 3 |
| MMC 3743 | Communicating Fear: Horror Films and Popular Culture                                      | 3 |
| MMC 3745 | Communicating Fear Abroad: International Horror Films & Popular Culture                   | 3 |
| MMC 4601 | Minorities and the Mass Media   | 3 |
| MUH 2930 | The Music Experience: Special Topics  | 3 |
| MUL 2010 | Music Appreciation  | 3 |
| NUR 4615 | Patient Centered Population Health  | 3 |
| NUR 4636 | Population-based Public Health Nursing  | 3 |
| PHI 3790 | African Philosophy  | 3 |
| PUR 3404 | International Public Relations  | 3 |
| PSY 3860 | Positive Psychology   | 3 |
| SOP 3730 | Psychology, Culture, and Society  | 3 |
| SOW 4233 | Human Diversity and Social Justice  | 3 |
| SPN 3400 | Advanced Stylistics   | 3 |
| SPN 4520 | Latin American Culture and Civilization   | 3 |
| SYO 4421 | Sociology of Health, Illness and Health Care  | 3 |
| SYO 4530 | Inequality in America   | 3 |

# **Civic Literacy Requirement**

The 2017 Florida Legislature amended Section 1007.25, Florida Statutes, to require students initially entering a State University System (SUS) and/or Florida College System (FCS) institution in 2018-2019 and thereafter to demonstrate competency in civic literacy. The 2021 Legislature further amended Florida Statutes, requiring students to complete both a civic literacy course and an exam. As a result, there are three cohorts of students currently matriculating at Florida public institutions subject to varying requirements. As demonstrated in the table below, the exact civic literacy requirements are based on the academic term in which a student first enrolled in a Florida public institution.

| Students Included in Cohort  | Civic Literacy Competency<br>Requirement                                   |
|--|--|
| Cohort 1: Students first entering the SUS or FCS prior to fall 2018  | None   |
| Cohort 2: Students first entering<br>the SUS or FCS in fall 2018 –<br>summer A 2021                                  | Complete a course <b>or</b> exam (course options AMH 2020, POS 2041)       |
| Cohort 3: Students first entering<br>the SUS or FCS in summer B<br>2021 (on or after July 1, 2021)<br>and thereafter | Complete both a course <b>and</b> exam (course options AMH 2020, POS 2041) |

Additionally, the 2021 Legislature made two additional exceptions: approving the use of accelerated mechanisms for meeting the course competency requirement and exempting high school students who pass the Florida Civic Literacy Exam in high school from the postsecondary exam requirement. These two changes are in effect for Cohort 3.

There are multiple ways to satisfy this requirement. Students should work with their academic advisor to determine which option is best for their degree requirements/degree plan.

Additional information can be found on our Civic Literacy website, SUS regulation BOG 8.006 and Florida Statute s.1007.25(4,a-b).

# **Mathematics Pathway**

Students are advised to complete the following courses to fulfill the mathematics pathway that aligns with the mathematics skills needed for success in their program and their career goals. Students should refer to their academic advisor for questions about the math pathway for their program. For information about this requirement, refer to the catalog page for Mathematics Pathways. These courses may also fulfill requirements for General Education and Common Prerequisites.

Algebra through Calculus

| Students will be  | placed on a starting point based on their |     |
|-------------------|---|-----|
| mathematics place | cement.                                   |     |
| MAC 1105          | College Algebra                           | 3-4 |
| or MAC 11050      | CCollege Algebra with Lab                 |     |
| STA 2023          | Elements of Statistics                    | 3   |

# **Common Prerequisites**

State-mandated common prerequisites must be completed prior to acceptance into the MLT to MLS specialization. See the Common Prerequisites for course substitutions from Florida colleges and universities.

| CHM 2045+L        | General Chemistry I (+Lab) *       | 4 |
|-------------------|------------------------------------|---|
| CHM 2046+L        | General Chemistry II (+Lab) *      | 4 |
| BSC 1085+L        | Anatomy and Physiology I (+Lab) *  | 4 |
| CHM 2210          | Organic Chemistry I                | 3 |
| MCB 3020+L        | Microbiology (+Lab) (or MCB 2010C) | 4 |
| STA 2023          | Elements of Statistics *           | 3 |
| Choose one of the | ne following options:              | 4 |
| Option 1          |                                    |   |
| BSC 2010+L        | Biology I (+Lab) *                 |   |
| Option 2          |                                    |   |
| BSC 1086+L        | Anatomy and Physiology II (+Lab) * |   |

**Total Hours** 26

\* Common prerequisites which can be used to satisfy General Education requirements.

#### **Lower Division Electives**

Students must complete sufficient 1000/2000 level electives to satisfy at least 60 semester hours in the lower division. Current UWF students may use elective courses at any level (1000-4000) to meet this elective requirement.

**Total Hours** 

# **Major**

| Total Hours |   | 39 |
|-------------|---|----|
| MLS 4631C   | Clinical Chemistry II for the MLT to MLS +                      | 3  |
| MLS 4704    | Clinical Management Portfolio for the MLT to MLS track + ***    | 3  |
| MLS 4626C   | Clinical Chemistry I for the MLT to MLS +                       | 3  |
| MLS 4552C   | Immunohematology for the MLT to MLS track <sup>+</sup>          | 4  |
| MLS 4463C   | Medical Microbiology for the MLT to MLS track <sup>+</sup>      | 4  |
| MLS 4461C   | Diagnostic Microbiology for the MLT to MLS track <sup>+</sup>   | 4  |
| MLS 4335C   | Hemostasis and Thrombosis for the MLT to MLS track $^{\dagger}$ | 3  |
| MLS 4306C   | Hematology for the MLT to MLS track +                           | 4  |
| MLS 4221C   | Urinalysis/Body Fluids for the MLT to MLS track <sup>+</sup>    | 3  |
| MLS 4506C   | Clinical Immunology for the MLT to MLS track <sup>+</sup>       | 4  |
| MLS 4193C   | Molecular Diagnostics for the MLT to MLS track <sup>+</sup>     | 4  |

- \*\* College-Level Communication Skills course.
- + Courses included in the major GPA.

# **Major-Related**

| Total Hou | ırs  |                              | <br>9 |
|-----------|------|------------------------------|-------|
| MLS 3621  |      | Clinical Biochemistry +      | 3     |
| or HSC    | 3535 | Medical Terminology          |       |
| HSC 3555  | ;    | Pathophysiology <sup>+</sup> | 3     |
| MLS 3194  |      | Clinical Genetics +          | 3     |

# **Upper Division Electives**

Students must complete sufficient 3000/4000 level electives to meet UWF's requirement of 48 semester hours in the upper division or complete all departmental requirements at the 3000/4000 level, whichever is greater.

Total Hours 12

Up to 12 semester hours of MLT courses will be validated for transfer credit based upon MLT certification and successful completion of the major courses in the program.

Graduation requirements stipulate a student must earn the last 30 hours of coursework at the University of West Florida.

# Categorical Concentration in Core Lab (Hematology & Clinical Chemistry) Certificate

Individuals with a bachelor's degree from a regionally accredited college/university in Biology, Chemistry, or Biomedical Sciences can complete the requirements to become a Technologist in the departments of Hematology, Clinical Chemistry, and Body Fluids through this innovative online + internship curriculum. After completion, the candidate may sit for the categorical exam in Hematology and Clinical Chemistry, and become certified as a Technologist in Chemistry C(ASCP) and Hematology H(ASCP). The certification

qualifies the candidate for positions in the Clinical Chemistry and Hematology sections of medical facilities.

Not all states authorize categorical certification. If you are
residing or planning to reside outside of Florida you will want
to check the status of your state's acceptance of a categorical
certification: <u>UWF State Authorization Status</u>. Some U.S. states
have special training requirements or do not license in specific
laboratory categories. It is the student's responsibility to research
state licensure requirements.

The program is limited to employees of institutions currently affiliated with the Medical Laboratory Sciences Department at the University of West Florida. Students are expected to perform the internship courses of the curriculum at their place of employment.

#### **Admission Requirements**

Students seeking admission to the Medical Laboratory Sciences (MLS) Certificate Program must meet the requirements **at the time of application**. The program selection criteria are based on the following:

- A minimum overall GPA of 2.5 on a 4.0 scale from their bachelor's degree
- Bachelor's degree in Biology, Biomedical Sciences, Chemistry, or a related discipline
- Completion of all science prerequisite coursework with a grade of "C-" or better
- · Submission of a departmental application
- · Personal interview with the certificate coordinator
- · Recommendation letters
- Submission of an eligibility form
- · Currently employed at one of the UWF MLS affiliates
  - Those residing in proximity to an affiliated institution, yet not employed there, may be evaluated on an individual basis.

Students with prerequisite deficiencies may take longer to complete the program.

Upon admission, the MLS student will receive information concerning current UWF MLS requirements for progression to the clinical training courses. These include, but may not be limited to student health physical examination; hospital required immunizations; TB test; criminal background check; Florida training license; proof of health insurance; and drug screen.

# **Certificate Requirements**

A grade of "C" or higher is required in each programmatic course (4000-level courses with an MLS prefix).

#### **Progression**

The following requirements must be met to remain and progress in the MLS program track:

- A grade of "C" or higher is required in each programmatic course (4000-level clinical courses with an MLS prefix) and a grade of "C" or higher on clinical lab practical exams.
- Completion of the programmatic coursework within two years of beginning a clinical internship.
- Students may only have one MLS course or clinical lab exam grade below a "C." That course or clinical lab exam will have to be repeated to make a "C" or better.
- Withdrawing from a course is considered the same as receiving below a "C" in a graded course.

- Students repeating an MLS course must also repeat the corequisite lab.
- While in the program, if the student's criminal status changes, the student must disclose this to the MLS department within three
   (3) business days of the offense. Failure to disclose will result in dismissal from the program. Absolute honesty is essential. Clinical practice facilities have the right to refuse to permit a student to attend practice in their facility due to criminal charges. If a student is denied access to clinical practice, this could result in the inability to complete clinical requirements resulting in a course failure and dismissal from the MLS program.
  - Students who are not enrolled for two or more consecutive semesters will be required to resubmit criminal background check materials and repeat drug screen at the time of re-entry.

# **Program Dismissal**

Dismissal from the program may occur in the following instances:

- Failure to maintain the academic and professional standards specified in the program handbook.
- Earning two grades below a "C" in MLS courses or withdrawing from two MLS courses.

# **Required Courses**

Prerequisite courses include Human Physiology, Genetics, and Biochemistry.

| MLS 4306C   | Hematology for the MLT to MLS track                | 4  |
|-------------|--|----|
| MLS 4335C   | Hemostasis and Thrombosis for the MLT to MLS track | 3  |
| MLS 4221C   | Urinalysis/Body Fluids for the MLT to MLS track    | 3  |
| MLS 4626C   | Clinical Chemistry I for the MLT to MLS            | 3  |
| MLS 4631C   | Clinical Chemistry II for the MLT to MLS           | 3  |
| MLS 4705    | Special Clinical Topics                            | 1  |
| MLS 4820L   | Clinical Chemistry III                             | 4  |
| MLS 4822L   | Hematology II                                      | 4  |
| MLS 4193C   | Molecular Diagnostics for the MLT to MLS track     | 4  |
| MLS 4506C   | Clinical Immunology for the MLT to MLS track       | 4  |
| Total Hours |  | 33 |

# Technologist in Clinical Chemistry Certificate

Individuals with a bachelor's degree from a regionally accredited college/university in Biology, Chemistry, or Biomedical Sciences can complete the requirements to become a Technologist in the department of Clinical Chemistry through this innovative online + internship curriculum. After completion, the candidate may sit for the categorical exam in Clinical Chemistry, and become certified as a Technologist in Chemistry C(ASCP). The certification qualifies the candidate for positions in the Clinical Chemistry sections of medical facilities.

Not all states authorize categorical certification. If you are
residing or planning to reside outside of Florida you will want
to check the status of your state's acceptance of a categorical
certification: <u>UWF State Authorization Status</u>. Some U.S. states
have special training requirements or do not license in specific

laboratory categories. It is the student's responsibility to research state licensure requirements.

The program is limited to employees of institutions currently affiliated with the Medical Laboratory Sciences Department at the University of West Florida. Students are expected to perform the internship courses of the curriculum at their place of employment.

# **Admission Requirements**

Students seeking admission to the Medical Laboratory Sciences (MLS) Certificate Program must meet the requirements **at the time of application**. The program selection criteria are based on the following:

- A minimum overall GPA of 2.5 on a 4.0 scale from their bachelor's degree
- Bachelor's degree in Biology, Biomedical Sciences, Chemistry, or a related discipline
- Completion of all science prerequisite coursework with a grade of "C-" or better
- Submission of a departmental application
- · Personal interview with the certificate coordinator
- · Recommendation letters
- · Submission of an eligibility form
- · Currently employed at one of the UWF MLS affiliates
  - Those residing in proximity to an affiliated institution, yet not employed there, may be evaluated on an individual basis.

Students with prerequisite deficiencies may take longer to complete the program.

Upon admission, the MLS student will receive information concerning current UWF MLS requirements for progression to the clinical training courses. These include, but may not be limited to student health physical examination; hospital required immunizations; TB test; criminal background check; Florida training license; proof of health insurance; and drug screen.

#### Certificate Requirements

A grade of "C" or higher is required in each programmatic course (4000-level courses with an MLS prefix).

#### **Progression**

The following requirements must be met to remain and progress in the MLS program track:

- A grade of "C" or higher is required in each programmatic course (4000-level clinical courses with an MLS prefix) and a grade of "C" or higher on clinical lab practical exams.
- Completion of the programmatic coursework within two years of beginning a clinical internship.
- Students may only have one MLS course or clinical lab exam grade below a "C." That course and/or clinical lab exam will have to be repeated to make a "C" or better.
- Withdrawing from a course is considered the same as receiving below a "C" in a graded course.
- Students repeating an MLS course must also repeat the corequisite lab.
- While in the program, if the student's criminal status changes, the student must disclose this to the MLS department within three
   (3) business days of the offense. Failure to disclose will result in dismissal from the program. Absolute honesty is essential. Clinical practice facilities have the right to refuse to permit a student to attend practice in their facility due to criminal charges. If a student

is denied access to clinical practice, this could result in the inability to complete clinical requirements resulting in a course failure and dismissal from the MLS program.

 Students who are not enrolled for two or more consecutive semesters will be required to resubmit criminal background check materials and repeat drug screen at the time of re-entry.

# **Program Dismissal**

Dismissal from the program may occur in the following instances:

- Failure to maintain the academic and professional standards specified in the program handbook.
- Earning two grades below a "C" in MLS courses or withdrawing from two MLS courses.

# Required Courses

Prerequisite courses include Human Physiology, Genetics, and Biochemistry.

| MLS 4506C | Clinical Immunology for the MLT to MLS track    | 4 |
|-----------|---|---|
| MLS 4193C | Molecular Diagnostics for the MLT to MLS track  | 4 |
| MLS 4820L | Clinical Chemistry III                          | 4 |
| MLS 4705  | Special Clinical Topics                         | 1 |
| MLS 4631C | Clinical Chemistry II for the MLT to MLS        | 3 |
| MLS 4626C | Clinical Chemistry I for the MLT to MLS         | 3 |
| MLS 4221C | Urinalysis/Body Fluids for the MLT to MLS track | 3 |

Total Hours 22

## **Technologist in Hematology Certificate**

Individuals with a bachelor's degree from a regionally accredited college/university in Biology, Chemistry, or Biomedical Sciences can complete the requirements to become a Technologist in the departments of Hematology and Body Fluids through this innovative online + internship curriculum. After completion, the candidate may sit for the categorical exam in Hematology and Clinical Chemistry, and become certified as a Technologist in Hematology H(ASCP). The certification qualifies the candidate for positions in the Hematology sections of medical facilities.

Not all states authorize categorical certification. If you are residing
or planning to reside outside of Florida you will want to check the
status of your state's acceptance of a categorical certification:
 <u>UWF State Authorization Status</u>. Some U.S. states have special
training requirements or do not license in specific laboratory
categories. It is the student's responsibility to research state
licensure requirements.

The program is limited to employees of institutions currently affiliated with the Medical Laboratory Sciences Department at the University of West Florida. Students are expected to perform the internship courses of the curriculum at their place of employment.

#### **Admission Requirements**

Students seeking admission to the Medical Laboratory Sciences (MLS) Certificate Program must meet the requirements at the time of application. The program selection criteria are based on the following:

 A minimum overall GPA of 2.5 on a 4.0 scale from their bachelor's degree

- Bachelor's degree in Biology, Biomedical Sciences, Chemistry, or a related discipline
- Completion of all science prerequisite coursework with a grade of "C-" or better
- Submission of a departmental application
- · Personal interview with the certificate coordinator
- · Recommendation letters
- · Submission of an eligibility form
- · Currently employed at one of the UWF MLS affiliates
  - Those residing in proximity to an affiliated institution, yet not employed there, may be evaluated on an individual basis.

Students with prerequisite deficiencies may take longer to complete the program.

Upon admission, the MLS student will receive information concerning current UWF MLS requirements for progression to the clinical training courses. These include, but may not be limited to student health physical examination; hospital required immunizations; TB test; criminal background check; Florida training license; proof of health insurance; and drug screen.

#### **Certificate Requirements**

A grade of "C" or higher is required in each programmatic course (4000-level courses with an MLS prefix).

#### **Progression**

The following requirements must be met to remain and progress in the MLS program track:

- A grade of "C" or higher is required in each programmatic course (4000-level clinical courses with an MLS prefix) and a grade of "C" or higher on clinical lab practical exams.
- Completion of the programmatic coursework within two years of beginning a clinical internship.
- Students may only have one MLS course or clinical lab exam grade below a "C." That course and/or clinical lab exam will have to be repeated to make a "C" or better.
- Withdrawing from a course is considered the same as receiving below a "C" in a graded course.
- Students repeating an MLS course must also repeat the corequisite lab.
- While in the program, if the student's criminal status changes, the student must disclose this to the MLS department within three
   (3) business days of the offense. Failure to disclose will result in dismissal from the program. Absolute honesty is essential. Clinical practice facilities have the right to refuse to permit a student to attend practice in their facility due to criminal charges. If a student is denied access to clinical practice, this could result in the inability to complete clinical requirements resulting in a course failure and dismissal from the MLS program.
  - Students who are not enrolled for two or more consecutive semesters will be required to resubmit criminal background check materials and repeat drug screen at the time of re-entry.

## **Program Dismissal**

Dismissal from the program may occur in the following instances:

- Failure to maintain the academic and professional standards specified in the program handbook.
- Earning two grades below a "C" in MLS courses or withdrawing from two MLS courses.

# **Required Courses**

Prerequisite courses include Human Physiology, Genetics, and Biochemistry.

| Total Hours |  | 23 |
|-------------|--|----|
| MLS 4506C   | Clinical Immunology for the MLT to MLS track       | 4  |
| MLS 4193C   | Molecular Diagnostics for the MLT to MLS track     | 4  |
| MLS 4822L   | Hematology II                                      | 4  |
| MLS 4705    | Special Clinical Topics                            | 1  |
| MLS 4221C   | Urinalysis/Body Fluids for the MLT to MLS track    | 3  |
| MLS 4335C   | Hemostasis and Thrombosis for the MLT to MLS track | 3  |
| MLS 4306C   | Hematology for the MLT to MLS track                | 4  |

# **Technologist in Microbiology Certificate**

Individuals with a bachelor's degree from a regionally accredited college/university in Biology, Chemistry, Microbiology, or Biomedical Sciences can complete the requirements to become a Technologist in Microbiology through this innovative online + internship curriculum. After completion, the candidate may sit for the categorical exam in Microbiology and become certified as a Technologist in Microbiology M(ASCP). The certification qualifies the candidate for positions in the Microbiology section of medical facilities.

Not all states authorize categorical certification. If you are
residing or planning to reside outside of Florida you will want
to check the status of your state's acceptance of a categorical
certification: <u>UWF State Authorization Status</u>. Some U.S. states
have special training requirements or do not license in specific
laboratory categories. It is the student's responsibility to research
state licensure requirements.

The program is limited to employees of institutions currently affiliated with the Medical Laboratory Sciences Department at the University of West Florida. Students are expected to perform the internship courses of the curriculum at their place of employment.

## **Admission Requirements**

Students seeking admission to the Medical Laboratory Sciences (MLS) Certificate Program must meet the requirements at the time of application. The program selection criteria are based on the following:

- A minimum overall GPA of 2.5 on a 4.0 scale from their bachelor's degree
- Bachelor's degree in Biology, Biomedical Sciences, Microbiology, Chemistry, or a related discipline
- Completion of all science prerequisite coursework with a grade of "C-" or better
- Submission of a departmental application
- · Personal interview with the certificate coordinator
- Recommendation letters
- Submission of an eligibility form
- Currently employed at one of the UWF MLS affiliates in a
   Microbiology Lab or currently employed at an affiliate in the clinical lab and has a reference from the supervisor of the Microbiology Lab
  - Those residing in proximity to an affiliated institution, yet not employed there, may be evaluated on an individual basis. The

individual must have microbiology experience in a lab outside of coursework.

Students with prerequisite deficiencies may take longer to complete the program.

Upon admission, the MLS student will receive information concerning current UWF MLS requirements for progression to the clinical training courses. These include, but may not be limited to student health physical examination; hospital required immunizations; TB test; criminal background check; Florida training license; proof of health insurance; and drug screen.

# **Certificate Requirements**

A grade of "C" or higher is required in each programmatic course (4000-level courses with an MLS prefix).

# **Progression**

The following requirements must be met to remain and progress in the MLS program track:

- A grade of "C" or higher is required in each programmatic course (4000-level clinical courses with an MLS prefix) and a grade of "C" or higher on clinical lab practical exams.
- Completion of the programmatic coursework within two years of beginning a clinical internship.
- Students may only have one MLS course or clinical lab exam grade below a "C." That course and/or clinical lab exam will have to be repeated to make a "C" or better.
- Withdrawing from a course is considered the same as receiving below a "C" in a graded course.
- Students repeating an MLS course must also repeat the corequisite lab.
- While in the program, if the student's criminal status changes, the student must disclose this to the MLS department within three
   (3) business days of the offense. Failure to disclose will result in dismissal from the program. Absolute honesty is essential. Clinical practice facilities have the right to refuse to permit a student to attend practice in their facility due to criminal charges. If a student is denied access to clinical practice, this could result in the inability to complete clinical requirements resulting in a course failure and dismissal from the MLS program.
  - Students who are not enrolled for two or more consecutive semesters will be required to resubmit criminal background check materials and repeat drug screen at the time of re-entry.

#### **Program Dismissal**

Dismissal from the program may occur in the following instances:

- Failure to maintain the academic and professional standards specified in the program handbook.
- Earning two grades below a "C" in MLS courses or withdrawing from two MLS courses.

#### Required Courses

Prerequisite courses include Human Physiology, General Microbiology with Lab, Genetics, and Biochemistry.

| MLS 4461C | Diagnostic Microbiology for the MLT to MLS track | 4 |
|-----------|--|---|
| MLS 4463C | Medical Microbiology for the MLT to MLS track    | 4 |

| <b>Total Hours</b> |  | 23 |
|--------------------|--|----|
| MLS 4824L          | Special Clinical Methods                       | 2  |
| MLS 4821L          | Diagnostic Microbiology II                     | 4  |
| MLS 4193C          | Molecular Diagnostics for the MLT to MLS track | 4  |
| MLS 4705           | Special Clinical Topics                        | 1  |
| MLS 4506C          | Clinical Immunology for the MLT to MLS track   | 4  |