

Clinical Laboratory Sciences

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

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 work in research labs, reference labs, public-health labs, blood banks, crime labs, physicians' office labs, and so on.

Program Requirements

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, is limited to 40 students per class. The clinical year begins in spring or summer semester of the student's junior year. Note that meeting minimum standards does not guarantee admission into the program. Students who completed the prerequisite course work at another university may apply and be admitted to UWF-based clinical training, provided they meet the selection criteria given above. The selection into the clinical year is based on the following:

- Completion of all the prerequisite course work
- A minimum GPA of 2.5 in the completed course work
- 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.

Students who are selected for clinical training will spend summer and fall semesters at UWF's main campus, followed by seven months of advanced clinical laboratory training at one of the affiliate hospitals. Students should contact the department for information about finishing the required clinical training after completing the B.S. degree and for a list of affiliated clinical training sites.

In addition to the university's general requirements, students seeking the B.S. degree in Clinical Laboratory Sciences must meet the requirements listed below. A grade of "C" or higher is required in each major course (clinical courses with a MLS prefix).

General Education

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

including the Gordon Rule, 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 "[University Requirements](#)" section of this catalog.

General Education Curriculum: Communication

ENC 1101	English Composition I	3
ENC 1102	English Composition II	3

Mathematics

Choose one course from Group A and one Additional course from either Group A or Group B 6

Group A

MAC 1105	College Algebra
MAC 1105C	College Algebra with Lab
MAC 2311	Analytic Geometry and Calculus I
MGF 1106	Mathematics for Liberal Arts I
MGF 1107	Mathematics for Liberal Arts II
STA 2023	Elements of Statistics

Group B

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
STA 2360	Introduction to Data Science

Social Sciences

Choose one course from Group A and one additional course from either Group A or Group B 6

Group A

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
SYG 2000	Introduction to Sociology

Group B

AMH 2010	United States to 1877
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
IDH 1041	Honors Core 2

INR 2002	International Politics
MMC 2000	Principles of Mass Communication
PLA 2013	Survey of American Law
SOW 2192	Understanding Relationships in the 21st Century
SPM 2010	Sport in Global Society
SYG 2010	Current Social Problems

Humanities

Choose one course from Group A and one additional course from either Group A or Group B 6

Group A	
ARH 1000	Art Appreciation
LIT 2000	Introduction to Literature
MUL 2010	Music Appreciation
PHI 2010	Introduction to Philosophy
THE 2000	Theatre Appreciation
Group B	
AML 2010	American Literature I
AML 2020	American Literature II
AML 2072	Sex, Money, and Power in American Literature
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 1
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	Basic Communication Skills
THE 2300	Survey of Dramatic Literature

Natural Sciences

Choose one course from Group A and one additional course from either Group A or Group B 6

Group A	
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
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	
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
GLY 2010	Physical Geology *
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.

General Education Electives

Choose an additional course from two of the three areas of Humanities, Social Sciences, 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	HIS 4262	Rise and Fall of the Portuguese Empire	3
AML 4015	Topics in Nineteenth-Century American Literature	3	IDH 1040	Honors Core 1	3
AML 4640	Topics in Native American Literature	3	IDH 1041	Honors Core 2	3
ANT 1001	Anthropology as a Profession	1	INR 2002	International Politics	3
ANT 2000	Introduction to Anthropology	3	LAH 4135	Spanish Conquest of the Americas	3
ANT 2301	Human Sexuality and Culture	3	LAH 4131	'Atlantic Indians': How Indigenous and African Peoples Shaped Europe & the Americas	3
ANT 3212	Peoples and Cultures of the World	3	LAH 4451	Greater Mexico: Central America from Conquest to the 20th Century	3
ANT 3312	North American Indians	3	LAH 4728	Gender and Sexuality in Latin America from Colonization to Today	3
ANT 3363	Japanese Culture	3	LIT 2000	Introduction to Literature	3
ANT 3403	Cultural Ecology	3	LIT 2030	Introduction to Poetry	3
ANT 4006	Anthropology of Human Rights	3	LIT 3233	Postcolonial Literature	3
ANT 4025	Ritual Use of Human Remains	3	LIT 4036	Topics in Poetry and Poetics	3
ANT 4516	Modern Human Physical Variation	3	LIT 4385	Feminist Theory	3
ARH 1000	Art Appreciation	3	MAN 4102	Management of Diversity	3
ARH 2050	Western Survey I: Prehistory to the Medieval Period	3	MAR 4156	Seminar in International Marketing	3
ARH 2051	Western Survey II: Renaissance to Contemporary	3	MMC 3743	Communicating Fear: Horror Films and Popular Culture	3
ARH 3590	Non-Western Art	3	MMC 3745	Communicating Fear Abroad: International Horror Films & Popular Culture	3
ARH 3607	Native American Art	3	MUH 2930	The Music Experience: Special Topics	3
ARH 4302	Late Renaissance Art in Italy	3	MUL 2010	Music Appreciation	3
ARH 4412	The Age of Revolution to Romanticism in Europe: 1750-1850	3	NUR 4615	Community and Public Health Nursing	3
ARH 4450	Modern Art: 1850-1980	3	NUR 4636	Population-based Public Health Nursing	3
ARH 4470	Contemporary Art	3	PHI 3790	African Philosophy	3
ARH 4563	Art of Japan	3	PUR 3404	International Public Relations	3
CCJ 3678	Race, Gender, Ethnicity, and Crime	3	PSY 3860	Positive Psychology	3
COM 3014	Gender Communication	3	SOP 3730	Psychology, Culture, and Society	3
COM 3461	Intercultural Communication	3	SOW 4233	Human Diversity and Social Justice	3
COM 4242	Communication and Christianity	3	SPN 3400	Advanced Stylistics	3
CPO 2002	Comparative Politics	3	SPN 4520	Latin American Culture and Civilization	3
CPO 4792	Geopolitics	3	SYO 4421	Sociology of Health, Illness and Health Care	3
CRW 2001	Introduction to Creative Writing	3	SYO 4530	Inequality in America	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 3203	Modern Europe	3			
EUH 3334	Emperors, Sultans, Dictators, and Democrats: The Balkans	3			
EUH 3411	Rome and the Mediterranean World	3			
EUH 3576	Soviet Union since 1917	3			
EUH 4563	The Other Germany: The Lands of the Austrian Monarchy, 1526-1918	3			
FRE 4955	Supervised Foreign Language Field Experience Abroad	1-3			
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			
HIS 2050	Explore! History	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 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 Requirement
Cohort 1: Students first entering the SUS or FCS prior to fall 2018	None

Cohort 2: Students first entering the SUS or FCS in fall 2018 – summer A 2021	Complete a course or exam
Cohort 3: Students first entering the SUS or FCS in summer B 2021 (on or after July 1, 2021) and thereafter	Complete both a course and exam

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.

*[BOG 8.006](#); [s.1007.25\(4.a-b\)](#)

Common Prerequisites

State-mandated common prerequisites must be completed prior to graduation, but are not required for admission to the program. See the [Common Prerequisite Manual](#) for course substitutions from Florida colleges and universities.

BSC 1085+L	Anatomy and Physiology I (+Lab) *	4
BSC 1086+L	Anatomy and Physiology II (+Lab)	4
CHM 2045+L	General Chemistry I (+Lab) *	4
CHM 2046+L	General Chemistry II (+Lab) *	4
CHM 2210+L	Organic Chemistry I (+Lab) *	4
CHM 2211+L	Organic Chemistry II (+Lab) *	4
MCB 3020+L	Microbiology (+Lab) *	4
STA 2023	Elements of Statistics *	3
BSC 2010+L	Biology I (+Lab)	4
Total Hours		35

* 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
MLS 4334+L	Hemostasis and Thrombosis (+Lab) *	2
MLS 4460+L	Diagnostic Microbiology I (+Lab) *	4
MLS 4462+L	Medical Microbiology (+Lab) *	4
MLS 4550+L	Immunohematology I (+Lab) *	4
MLS 4625+L	Clinical Chemistry I (+Lab) *	3
MLS 4630+L	Clinical Chemistry II (+Lab) *	3
MLS 4705	Special Clinical Topics *	1
MLS 4820L	Clinical Chemistry III *	4
MLS 4821L	Diagnostic Microbiology II *	4
MLS 4822L	Hematology II *	4
MLS 4823L	Immunohematology II *	4
MLS 4824L	Special Clinical Methods *	2

MLS 4825L	Urinalysis/Body Fluids II *	2
Total Hours		55

+ Courses included in the major GPA

Major-Related

BCH 3033+L	Biochemistry I (+Lab)	4
HSC 3555	Pathophysiology	3
PCB 3063+L	Genetics (+Lab)	4
Total Hours		11

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Upon completion of the program and the achievement of certification and license, medical laboratory scientists are employed in a variety of health-care 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 who are credentialed by the American Society for Clinical Pathology (ASCP), American Medical Technologists (AMT) or American Association of Bioanalysts (AAB) 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: [UWF State Authorization Status](#)

Some US 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 [International 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.

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 college and completion of the common prerequisites of the program, or military training as a Medical Laboratory Technician and an Associate of Arts degree and the common prerequisites of the program
- Minimum overall GPA of 2.5 on 4.0 scale
- Certification as an MLT by ASCP, AMT or AAB
- Submission of a departmental application by the published deadline (see website for deadline and online application)
- Recommendation letters as requested
- Phone interview with selection committee

General Education

In addition to the General Education requirements listed on this page, students must satisfy all additional University requirements, including the Gordon Rule, 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 "[University Requirements](#)" section of this catalog.

General Education Curriculum:

Communication

ENC 1101	English Composition I	3
ENC 1102	English Composition II	3

Mathematics

Choose one course from Group A and one Additional course from either Group A or Group B 6

Group A

MAC 1105	College Algebra
MAC 1105C	College Algebra with Lab
MAC 2311	Analytic Geometry and Calculus I
MGF 1106	Mathematics for Liberal Arts I
MGF 1107	Mathematics for Liberal Arts II
STA 2023	Elements of Statistics

Group B

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
STA 2360	Introduction to Data Science

Social Sciences

Choose one course from Group A and one additional course from either Group A or Group B 6

Group A

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
SYG 2000	Introduction to Sociology

Group B

AMH 2010	United States to 1877
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
IDH 1041	Honors Core 2
INR 2002	International Politics
MMC 2000	Principles of Mass Communication
PLA 2013	Survey of American Law
SOW 2192	Understanding Relationships in the 21st Century
SPM 2010	Sport in Global Society
SYG 2010	Current Social Problems

Humanities

Choose one course from Group A and one additional course from either Group A or Group B 6

Group A

ARH 1000	Art Appreciation
LIT 2000	Introduction to Literature
MUL 2010	Music Appreciation
PHI 2010	Introduction to Philosophy
THE 2000	Theatre Appreciation

Group B

AML 2010	American Literature I
AML 2020	American Literature II
AML 2072	Sex, Money, and Power in American Literature
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 1
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	Basic Communication Skills
THE 2300	Survey of Dramatic Literature

Natural Sciences

Choose one course from Group A and one additional course from either Group A or Group B 6

Group A

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
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	
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
GLY 2010	Physical Geology *
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.

General Education Electives

Choose an additional course from two of the three areas of Humanities, Social Sciences, 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 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 3403	Cultural Ecology	3
ANT 4006	Anthropology of Human Rights	3
ANT 4025	Ritual Use of Human Remains	3
ANT 4516	Modern Human Physical Variation	3
ARH 1000	Art Appreciation	3
ARH 2050	Western Survey I: Prehistory to the Medieval Period	3
ARH 2051	Western Survey II: Renaissance to Contemporary	3
ARH 3590	Non-Western Art	3
ARH 3607	Native American Art	3
ARH 4302	Late Renaissance Art in Italy	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
CPO 4792	Geopolitics	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 3203	Modern Europe	3
EUH 3334	Emperors, Sultans, Dictators, and Democrats: The Balkans	3
EUH 3411	Rome and the Mediterranean World	3
EUH 3576	Soviet Union since 1917	3
EUH 4563	The Other Germany: The Lands of the Austrian Monarchy, 1526-1918	3
FRE 4955	Supervised Foreign Language Field Experience Abroad	1-3

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
HIS 2050	Explore! History	3
HIS 4262	Rise and Fall of the Portuguese Empire	3
IDH 1040	Honors Core 1	3
IDH 1041	Honors Core 2	3
INR 2002	International Politics	3
LAH 4135	Spanish Conquest of the Americas	3
LAH 4131	'Atlantic Indians': How Indigenous and African Peoples Shaped Europe & the Americas	3
LAH 4451	Greater Mexico: Central America from 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 3233	Postcolonial Literature	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
MUH 2930	The Music Experience: Special Topics	3
MUL 2010	Music Appreciation	3
NUR 4615	Community and Public Health Nursing	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 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 Requirement
Cohort 1: Students first entering the SUS or FCS prior to fall 2018	None
Cohort 2: Students first entering the SUS or FCS in fall 2018 – summer A 2021	Complete a course or exam
Cohort 3: Students first entering the SUS or FCS in summer B 2021 (on or after July 1, 2021) and thereafter	Complete both a course and exam

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.

*[BOG 8.006; s.1007.25\(4.a-b\)](#)

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+L	Organic Chemistry I (+Lab)	4
MCB 3020+L	Microbiology (+Lab) (or MCB 2010C)	4
STA 2023	Elements of Statistics *	3
Choose one of the following options:		4
Option 1		
BSC 2010+L	Biology I (+Lab) *	
Option 2		
BSC 1086+L	Anatomy and Physiology II (+Lab) *	
Total Hours		27

* 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		4
Major		
MLS 4193C	Molecular Diagnostics for the MLT to MLS track +	4
MLS 4506C	Clinical Immunology for the MLT to MLS track +	4

MLS 4221C	Urinalysis/Body Fluids for the MLT to MLS track ⁺	3
MLS 4306C	Hematology for the MLT to MLS track ⁺	4
MLS 4335C	Hemostasis and Thrombosis for the MLT to MLS track ⁺	3
MLS 4461C	Diagnostic Microbiology for the MLT to MLS track ⁺	4
MLS 4463C	Medical Microbiology for the MLT to MLS track ⁺	4
MLS 4552C	Immunohematology for the MLT to MLS track ⁺	4
MLS 4626C	Clinical Chemistry I for the MLT to MLS ⁺	3
MLS 4704	Clinical Management Portfolio for the MLT to MLS track ⁺ **	3
MLS 4631C	Clinical Chemistry II for the MLT to MLS ⁺	3
Total Hours		39

** Gordon Rule course.

+ Courses included in the major GPA.

Major-Related

MLS 3194	Clinical Genetics ⁺	3
HSC 3555	Pathophysiology ⁺	3
or HSC 3535	Medical Terminology	
MLS 3621	Clinical Biochemistry ⁺	3
Total Hours		9

Upper Division Electives

Student 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 can sit for the categorical exam in Hematology and Clinical Chemistry, and be 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.

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.

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
Total Hours		25

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 departments of Clinical Chemistry and Body Fluids through this innovative online + internship curriculum. After completion, the candidate can sit for the categorical exam in Clinical Chemistry, and be certified as a Technologist in Chemistry C(ASCP). The certification qualifies the candidate for positions in the Clinical Chemistry section of medical facilities.

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.

Prerequisite courses include Human Physiology, Genetics and Biochemistry.

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
Total Hours		14

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 department of Hematology/ Body Fluids through this innovative online + internship curriculum. After completion, the candidate can sit for the categorical exam in Hematology and be certified as a Technologist in Hematology H(ASCP). The certification qualifies the candidate for positions in the Hematology/Body Fluids sections of medical facilities.

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.

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 4705	Special Clinical Topics	1
MLS 4822L	Hematology II	4
Total Hours		15

Technologist in Microbiology Certificate

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

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.

Prerequisite courses include Human Physiology, General Microbiology, 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
MLS 4506C	Clinical Immunology for the MLT to MLS track	4
MLS 4705	Special Clinical Topics	1
MLS 4193C	Molecular Diagnostics for the MLT to MLS track	4
MLS 4821L	Diagnostic Microbiology II	4
MLS 4824L	Special Clinical Methods	2
Total Hours		23