

MISSION STATEMENT

The mission of the West Central Ohio Clinical Laboratory Science Program is to educate students in the clinical laboratory sciences, preparing them to practice as ethical and competent professionals, and enabling them to meet whatever job-related challenges arise now and in the future.

THE PROGRAM

Ohio Northern University (ONU), Department of Biological and Allied Health Sciences offer a Bachelor of Science degree in Clinical Laboratory Science (CLS). This degree is designed for students who want a baccalaureate degree and seek national certification in clinical laboratory science. Those who complete the degree may pursue career opportunities in various laboratory settings including medical, research and public health or choose to continue their education in graduate or professional school (e.g., medical, dental, etc.).

THE BSCLS DEGREE

The BSCLS degree at ONU centers on student learning using community-partnered curriculum. Students are expected to complete all degree requirements including (a) a minimum of 56 quarter hours of approved general education coursework, (b) a minimum of 49 quarter hours of biology requisites, (c) a minimum of 31 quarter hours of chemistry cognates, (d) participation in the college assessment program, and (e) a minimum of 62 quarter hours of clinical laboratory science core coursework (clinical training program). Students are encouraged to include recommended science electives as time and scheduling permit. Full-time students can complete the curriculum in 13 quarters (four years).

The last year of study requires that the student apply for admission to and complete a clinical training program. Students admitted to ONU's resident training program (West Central Ohio Clinical Laboratory Science – WCOCLS) continue their didactic coursework in the Department of Biological Sciences and complete applied clinical coursework at area affiliates including Lima Memorial Hospital, Lima, Ohio.

CLINICAL AFFILIATES

1. Lima Memorial Health System Hospital, Lima, Ohio
2. Lima Pathology Labs, Lima, Ohio
3. Blanchard Valley Regional Health System – Bluffton Campus, Bluffton, Ohio
4. Hardin Memorial Hospital, Kenton, Ohio
5. New Vision Medical Laboratories, Lima, Ohio
6. Wright Patterson Air Force Base, Wright Patterson Air Force Base, Ohio
 - ◆ Applied Biotechnology Laboratory

Department of Biological & Allied Health Sciences
Bachelor of Science Clinical Laboratory Science

Checklist for the BSCLS Degree Program (198 - 200 required hours)

General Education Core (57)	Credits
_____ English 110, 111 and 204	12
_____ Communication 211 <i>or</i> 225	4
_____ History 110	4
_____ Religion XXX	4
_____ Ethics (PHIL 238 or 240)	4
_____ Psychology 100	4
_____ Fine Arts XXX	4
_____ Non-Western Culture XXX	4
_____ Mathematics XXX (120 or above) & Statistics XXX	8
_____ Computer Science Course (no web design)	4
_____ Physical Education (Fitness, Life Skills, Wellness)	3
_____ AASG 300 Job & Graduate School Search Techniques	1
_____ Participation in College Assessment Program	N/A
_____ AASG 190 First Year Experience	2

Biology Core (49)	Credits
_____ BIOL 121 General Biology	4
_____ BIOL 122 Intro Zoology	4
_____ BIOL 124 Introduction to Human Anatomy and Histology	4
_____ BIOL 195 Orientation	1
_____ BIOL 210 Introductory Genetics	4
_____ BIOL 217 Introduction to Molecular Biology	4
_____ BIOL 301 Development Anatomy <i>or</i> BIOL 302 Human Anatomy	4
_____ BIOL 303 Histology <i>or</i> BIOL 343 Histological techniques	4
_____ BIOL 311 Microbiology	4
_____ BIOL 331, 332, & 333 Physiology 1, 2 & 3	9
_____ BIOL 351 Cell Biology	4
_____ BIOL 497 Independent Research in Biology	3
_____ BIOL 494 Biology Senior Seminar	1

Chemistry (31)	Credits
_____ CHEM 171 – 173 Introductory Chemistry 1, 2, 3	15
_____ CHEM 251 – 253 Organic Chemistry 1, 2, 3	12
_____ Biochemistry 1	4

Recommended Electives (taken as time and schedule permit)	Credits
_____ BIOL 315 Medical Terminology	2
_____ BIOL 354 Introduction to Bioinformatics	4
_____ BIOL 357 Introduction to Forensic Serology/DNA	4
_____ BIOL 362 Parasitology	4
_____ PHYS 120 Physics with Health Science Applications	4
_____ PHYS 211 – 213 General Physics/ with labs (PHYS 234 – 236)	12

Clinical Laboratory Science Core	Credits
CLS 460 – 474 and CLS 490	62 – 64

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Suggested Course Sequence for the BSCLS

YEAR 1* (53 quarter hours)					
<i>Fall Term</i>		<i>Winter Term</i>		<i>Spring Term</i>	
Course	Credit	Course	Credit	Course	Credit
BIOL 121	4	BIOL 122	4	BIOL 124	4
AASG 190	2	ENGL 111	4	Computer Science	4
ENGL 110	4	HIST 110	4	STAT XXX	4
MATH XXX	4	CHEM 172	5	CHEM 173	5
CHEM 171	5	BIOL 195	1	AHPE - Fitness	1
TOTAL	19		18		18

*Students must make application to a professional organization and show evidence of membership each year.

YEAR 2 (50 quarter hours)					
<i>Fall Term</i>		<i>Winter Term</i>		<i>Spring Term</i>	
Course	Credit	Course	Credit	Course	Credit
BIOL 301	4	BIOL 217	4	BIOL 210	4
CHEM 251	4	BIOL 303	4	CHEM 253	4
COMM 221/225	4	BIOL 362+	4	PSYC 100	4
RELG XXX	4	CHEM 252	4	ENGL 204	4
BIOL 315	2	AHPE (Life Skills)	1		
TOTAL	18		17		16

YEAR 3 (47 quarter hours)					
<i>Fall Term*</i>		<i>Winter Term**</i>		<i>Spring Term</i>	
Course	Credit	Course	Credit	Course	Credit
BIOL 311	4	BIOL 325	5	BIOL 326	5
BIOL 324	5	BIOL 354+	4	BIOL 351	4
PHBS 341	4	Non – West XXX	4	BIOL 497	3
AHPE (Wellness)	1	AASG 300	1	PHIL 238 or 240	4
Fine Arts XXX	4	Program Elective	4	BIOL 494	1
	18		18		17

*1) Student must apply for a summary of "Unfulfilled Requirements" from the ONU Arts & Sciences Dean's office. ** 2) Student initiates application process for admittance to clinical program.

YEAR 4 (Clinical: 62 – 64 quarter hours)							
<i>Summer Term</i>		<i>Fall Term***</i>		<i>Winter Term</i>		<i>Spring Term</i>	
Course	Credit	Course	Credit	Course	Credit	Course	Credit
CLS 460	3	BIOL 462	3	CLS 468	2	CLS 471	6
CLS 461	3	BIOL 464	5	CLS 469	6	CLS 472	6
BIOL 463	3	CLS 465	5	CLS 470	6	CLS 474	1
BIOL 467	5	CLS 466	4	CLS 473	3		
CLS 490	1 – 3						
TOTAL	15 - 17		17		17		13

***Student must apply for graduation. At spring commencement, student receives B. S. Clinical Laboratory Science.

+Courses are offered alternate years, check with advisor & schedule.

WEST CENTRAL OHIO CLINICAL LABORATORY SCIENCE PROGRAM

The West Central Ohio Clinical Laboratory Science Program is Ohio Northern University's resident four-quarter (Table 1) capstone experience for those pursuing the BSCLS degree or the post baccalaureate certificate. During the first two quarters, students admitted to the program complete didactic coursework in clinical laboratory science theory and practice, hematology, clinical chemistry, clinical microbiology, clinical immunology, immunohematology, biological fluids, professional practice and development. The students complete their last two quarters of clinical coursework at area affiliates including Lima Memorial Hospital's Clinical Laboratory.

Table 1. Summary of WCOCLS Program

WCOCLS Program Year (62 – 64 quarter hours)							
<i>Summer Term</i> (12 weeks)		<i>Fall Term***</i> (10 weeks)		<i>Winter Term</i> (10 weeks)		<i>Spring Term</i> (10 weeks)	
Course	Credit	Course	Credit	Course	Credit	Course	Credit
CLS 460	3	BIOL 462	3	CLS 468	2	CLS 471	6
CLS 461	3	BIOL 464	5	CLS 469	6	CLS 472	6
BIOL 463	3	CLS 465	5	CLS 470	6	CLS 474	1
BIOL 467	5	CLS 466	4	CLS 473	3		
CLS 490	1 – 3						
TOTAL	15 - 17		17		17		13

***BSCLS degree students must apply for graduation. At spring commencement, students receive a B. S. in Clinical Laboratory Science.

WCOCLS Program Courses

CLS 460	Foundations of Clinical Laboratory Science	3
CLS 461	Professional Practice and Development	3
BIOL 462	Biological Fluids	3
BIOL 463	Clinical Immunology	3
BIOL 464	Hematology and Hemostasis	5
CLS 465	Blood Banking and Transfusion Science	5
CLS 466	Clinical Chemistry	4
BIOL 467	Clinical Microbiology	5
CLS 468	Clinical Laboratory Practicum Orientation	2
CLS 469	Clinical Hematology Practicum	6
CLS 470	Blood Bank Practicum	6
CLS 471	Clinical Chemistry Practicum	6
CLS 472	Clinical Microbiology Practicum	6
CLS 473	Immunology & Infectious Diseases Practicum	3
CLS 474	Case Studies in Clinical Laboratory Science	1
CLS 490	Special Topics in Clinical Laboratory Science	1 – 3

WCOCLS Program Admission Requirements:

B.S. in CLS Degree

The West Central Ohio Clinical Laboratory Science Program has an enrollment capacity of 8 students per year. The start date for the program is June. Prospective students may submit applications anytime but not later than March 1st of the year for which an applicant seeks program admission. Applicants completing prerequisite coursework at the time of application may be considered for admission but, if selected (provisional admit), will be required to submit documentation (transcript or original grade report) of successful completion of the course(s) prior to the first day of class. Applicants selected for admission for a given year are notified by the Program Director by April 1st of that year.

Admission to WCOCLS program is criterion-based, competitive and dependent upon the recommendation of the WCOCLSP admissions committee. Admission standards for BSCLS degree students include:

- Submission of a completed application for admission (only completed applications are considered)
- Satisfaction of all applicable university and college admission requirements
- Satisfaction of all applicable degree requirements excluding CLS coursework
- Completion of all prerequisite coursework with a minimum of a "C" in each course
- A cumulative GPA of 2.80 (scale 4.00) with a science (biology, chemistry, physics, math) GPA of 3.00
- Demonstrated comprehension of and commitment to CLS professionalism

Program Contact Information

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Program on-line at <http://www.onu.edu/wcocls>

Notice of Program Accreditation Status

The West Central Ohio Clinical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mawr Avenue, Suite 670, Chicago, Illinois 60631.