



# Medical Laboratory Science

## About this Composite Major



Medical Laboratory Science is a specialty program at VCSU, training future healthcare workers in practicing diagnostic medicine and generating accurate test results in chemistry, hematology, immunology, immunohematology, and microbiology. The results of these tests are critical because they provide key information to help in the diagnosis and treatment of disease. The Medical Laboratory Science (MLS) major equips students to become essential members of a healthcare team. This degree path will earn you a degree from VCSU and a Medical Laboratory Science Certificate from UND. This major at VCSU is meant to give students career opportunities, particularly in rural areas.

## Meet a Student



VCSU offers a unique experience in that the science professors are right there with you to offer the best advice and course recommendations- and of course the best ways to learn science! - Jess Ulrich, 2017 graduate, Medical Laboratory Scientist

## Career Opportunities

According to the Bureau of Labor Statistics, job opportunities in this field are expected to be excellent. Employment of medical laboratory workers is expected to grow by 11% between 2018–2028, faster than the average for all occupations ([www.bls.gov/ooh](http://www.bls.gov/ooh) (<https://www.bls.gov/ooh/>)).

## Get Involved in your Major



### Pre-Professional Club

The Pre-Professional Club is for students interested in continuing their education in the medical field (including nursing), law, accounting, and graduate school. This club provides support for students going through the application process and provide opportunities to practice aptitude tests such as the GRE, mCAT, LSAT, and DAT. Volunteer work, job shadowing, and educational & leadership opportunities are also part of the club's activities. The goal is for students to support each other, learn from other students' experiences, thus making your applications stronger, and increasing your chance for successful admission into your program of choice.

### Western College Alliance

Valley City State University has an affiliation agreement with the University of North Dakota for this major. This is considered the 3+1 track, and students in this track are



from affiliated universities in the Western College Alliance for Medical Laboratory Science. Each of the affiliated colleges have aligned specific curriculum content in their first three years with UND's MLS program. The universities that do not offer professional courses such as hematology, clinical immunology, or medical microbiology contract with the University of North Dakota to deliver these courses by distance learning.

### Medical Laboratory Science Certificate

Students in this major take part in a very prescribed program. The first six semesters for the MLS degree are completed at VCSU in the pre-professional phase. Upon successful completion of all required prerequisite coursework, the student applies to UND to complete the professional phase. This consists of a summer practicum experience at the UND campus in Grand Forks, ND, followed by two semesters in a clinical setting at a UND MLS clinical affiliate. The student will graduate in the MLS major with a degree from Valley City State University and a certificate from UND.

## Contact Information

### Department Chair

Dr. Nicholas Galt, [nicholas.galt@vcsu.edu](mailto:nicholas.galt@vcsu.edu), (701) 845-7459

### Faculty Contact

Dr. Hilde van Gijssel, [hilde.vangijssel@vcsu.edu](mailto:hilde.vangijssel@vcsu.edu), (701) 845-7337

### Department Location

Rhoades Science Center 203

### Schedule your visit today!

<http://visit.vcsu.edu/>

(701) 845-7101 or (800) 532-8641

## Plan of Study

Fall start - even years

First Year			
Fall	Credits	Spring	Credits
BIOL 150 (Gen Ed)	4	BIOL 151	4
CHEM 121 (Gen Ed)	5	CHEM 122	5
CIS 170 (Gen Ed)	3	ENGL 125 (Gen Ed)	3
ENGL 110 (Gen Ed)	3	CHEM 116	4
<b>15</b>		<b>16</b>	

### Second Year

Fall	Credits	Spring	Credits
BIOL 220	4	BIOL 221	4
MATH 107 (Gen Ed)	4	BIOL 310	4
SOC 110 (Gen Ed)	3	HPER 100 (Gen Ed)	2
CHEM 360	4	PSYC 200 (Gen Ed)	3
		Social Science (Gen Ed)	3
<b>15</b>		<b>16</b>	

### Third Year

Fall	Credits	Spring	Credits	Summer	Credits
MATH 210	3	BIOL 315	4	MLS 325L	1
MLS 226 (offered through UND)	3	MLS 332 (offered through UND)	3	MLS certificate courses (offered through UND)	13
MLS 334 (offered through UND)	3	MGMT 302	3		
Art and Music (Gen Ed)	3	Additional Humanities or Social Science (Gen Ed)	2		
Speech Communication (Gen Ed)	3				
<b>15</b>		<b>12</b>		<b>14</b>	

### Fourth Year

Fall	Credits	Spring	Credits
MLS certificate course affiliated hospital	12	MLS certificate courses affiliated hospital	12
<b>12</b>		<b>12</b>	

### Total Credits 127

Fall start - odd years

First Year			
Fall	Credits	Spring	Credits
BIOL 150 (Gen Ed)	4	BIOL 151	4
CHEM 121 (Gen Ed)	5	CHEM 122	5
ENGL 110 (Gen Ed)	3	ENGL 125 (Gen Ed)	3



CIS 170 (Gen Ed)	3	HPER 100 (Gen Ed)	2
<b>15</b>		<b>14</b>	

**Second Year**

Fall	Credits	Spring	Credits
BIOL 220	4	BIOL 221	4
MATH 107 (Gen Ed)	4	BIOL 310	4
MATH 210	3	CHEM 116	4
SOC 110 (Gen Ed)	3	PSYC 200 (Gen Ed)	3
Art and Music (Gen Ed)	3		
<b>17</b>		<b>15</b>	

**Third Year**

Fall	Credits	Spring	Credits	Summer	Credits
CHEM 360	4	BIOL 315 or MATH 165	4	MLS 325L (offered through UND)	1
MLS 226 (offered through UND)	3	MLS 332(offered through UND)	3	MLS certificate courses (offered through UND)	13
MLS 334 (offered through UND)	3	MGMT 302	3		
Social Science (Gen Ed)	3	Additional Humanities or Social Science (Gen Ed)	2		
Speech Communication (Gen Ed)	3				
<b>16</b>		<b>12</b>		<b>14</b>	

**Fourth Year**

Fall	Credits	Spring	Credits
MLS certificate course affiliated hospital	12	MLS certificate courses affiliated hospital	12
<b>12</b>		<b>12</b>	

**Total Credits 127**

**Learning Outcomes**

Upon completion of the Medical Laboratory Science Program the students should be able to:

1. Demonstrate a fundamental knowledge of the major concepts in chemistry and biology
2. Exhibit critical thinking skills by applying the scientific method to solve problems
3. Exhibit the entry level competencies needed to work as a Bachelor of Science degreed medical laboratory scientist.
4. Exhibit adequate knowledge and background experience to qualify for national certification examinations appropriate to their level of training.

Please note: This plan is intended for general information only. Students are strongly encouraged to meet with their academic advisor each semester before registration.