

# CLS 125: Introduction to Clinical Laboratory Science

## Spring 2020

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**Office:** B-149 Science  
**Office Hours:** M 10-11 AM; W 2-3:30 PM; Th 12-1 PM;  
or by appointment

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**Final:** Wed., May 13, 8-10am

### I. Course Description

This course is designed as an introduction for those without prior knowledge of medical laboratory medicine or for those who would like to know a little more. An overview of laboratory safety, phlebotomy, immunology, immunohematology, hematology, coagulation, clinical chemistry, microbiology, and urinalysis will be examined.

### II. Format

One hour lecture and two hours lab per week.

### III. SHCP Student Performance Learning Outcomes

An \* denotes outcomes most relevant to this course

- Relate theoretical constructs from the biological, physical, social and behavioral sciences to the knowledge of health, disease and health systems \*
- Apply principles of written, verbal and non-verbal communication to interactions with colleagues in learning, among disciplinary professionals and with clients in health care \*
- Discuss how health care evolved into current policy and systems of health issues and their delivery
- Assess moral, ethical and values-based dimensions of health issues and their implications on outcomes
- Compare and contrast fields of healthcare and the impacts of interdisciplinary practice \*
- Apply basic research methodology and appreciate the role of research in understanding and improving healthcare
- Analyze the dimensions of diversity and geographical awareness in relation to health care implications
- Demonstrate proficiency in self learning and developing professionalism \*
- Evaluate issues in healthcare using scientific reasoning and evidence-based research
- Synthesize individual knowledge base directed to collaborative problem-solving of healthcare issues \*
- Apply computer technology and data management skills \*
- Demonstrate discipline appropriate proficiencies \*

**IV. Enduring Understandings**

Students will understand that ....

- The clinical laboratory, and the professionals that work in it, play a critical role in the delivery of healthcare
- Physicians cannot do what they do without the work of the clinical lab
- Clinical laboratories are staffed by highly trained and specialized professionals
- Clinical Laboratory Science is a diverse profession, filled with endless opportunities
- Safety is an essential element in the lab environment

**V. Essential Questions**

What are the functions of the clinical lab

- What knowledge, skills and dispositions are required of Clinical Laboratory Scientists
- What information does the lab give to a physician that aids in patient care
- What is it like to work as a Clinical laboratory professional
- Why does safety play an essential role in the clinical lab environment

**VI. Knowledge (Know):**

Students will be able to/can ...

- Explain the basic role of the clinical lab
- Describe basic lab tests and their purpose
- Describe basic elements of, and in, blood and explain their functions
- Explain what a medical technologist does and what it takes to work as a laboratory professional
- Describe basic safety protocols that are essential to clinical labs

**VII. Skills (Able to do):**

Students will be able to/can ...

- Perform basic lab tests by following written and verbal procedures
- Properly utilize lab analyzers, microscopes and other lab equipment and supplies to run basic lab test procedures
- Interpret results of basic lab tests as they might relate to a patient's condition
- Work with others to perform lab tests, and to predict, interpret and explain test results
- Practice proper laboratory safety protocols while performing lab tests

**VIII. Dispositions (Value/Appreciate):**

Students will be able to/can ...

- Explain the knowledge and skills required of laboratory professionals
- Realize the importance of the clinical lab
- Explain basic lab tests and what the results might indicate
- Explain the importance of following safety protocols
- Recognize if Clinical Laboratory Science is a career worth further consideration and consider all the possibilities that go along with it

## Assignments, Policies and other Considerations

### I. Reading materials

- Basic Medical Laboratory Techniques, 6<sup>th</sup> edition (Rental)
- CLS 125 – Introduction to CLS, Lab Manual (Provided)

### II. Attendance

**Regular attendance is mandatory. Missed laboratory sessions result in a zero for the assigned laboratory exercise.** Repeated tardiness will affect your final course grade at the discretion of the instructor. The numerical grade correlation will be:

93 – 100	A	77 – 79	C+
90 – 92	A-	73 - 76	C
87 – 89	B+	70 - 72	C-
83 - 86	B	67 – 69	D+
80 - 82	B-	60 – 65	D
		< 60	F

Students are held responsible for lecture material, as well as handouts distributed and assigned readings in reference texts and on the web.

### V. Assessment

Quizzes and worksheets will be given at the discretion of the instructor. Laboratory exercises must be completed and results reported per instruction. There will be absolutely no make-up labs due to the unstable nature of the materials and reagents we are using.

### VI. Derivation of Course Grades

Course grades will be derived from a percentage of the total points possible. Point values will be assigned to the following components:

55%	Lab Exercises / Worksheets
15%	Verbal participation
5%	Attendance:
	0 absences = 50 points
	1 absence = 40 points
	2 absences = 10 points
	3 or more absences = 0 points
25%	Final Exam

### VII. Communicating With Your Instructor

1. Email is the quickest way to reach me at [mshulfer@uwsp.edu](mailto:mshulfer@uwsp.edu). I will respond or talk with you in person in a reasonable amount of time (~24-48 hours). Please note, I do not check email on a regular basis after 5 pm. It is not uncommon for instructors to receive as many as 100 emails from students, university & professional committees,

- etc. in a day. Please be respectful and professional in all correspondences. Yours should be clear, concise, include the course number, section, and your student ID #.
2. Phone: You may call my office at 715-346-2780. Please leave a voicemail.
  3. Office hours: I am available without an appointment on the days/times listed above. Individual meetings can be arranged through an email request, phone call, or conversation directly before or after class. I do not hold normal office hours during the following weeks: Spring Break or finals week.

#### VIII. **Guidelines for Course Success**

1. Course requirements: Always consider the detail of course requirements provided in both the learning objectives and evaluation rubrics.
2. Discussion / Participation guidelines & evaluation: ALL discussions & ALL assignments are required to achieve a final grade in this course. This includes *active engagement in classroom discussions each class*. Your grade for class participation will be based on the *frequency and quality* of your contributions. Quality participation are considered thoughtful contributions that demonstrate critical thinking related to the course material. Low quality contributions (long-winded excerpts from course materials, comments such as "I agree" or "Yes/No") will not contribute toward the frequency of your participation. Contributions could pose questions to promote critical thinking. Time during class can be used to discuss issues related to the course material, case studies, research articles or other relevant topics.
3. Cell Phones: As a courtesy to others, cellular phones are to be shut off and stored during class periods. Cell phones are NEVER to be brought into the laboratory!

#### IX. **Academic Honesty and Misconduct**

Academic honesty is a core principle of learning and scholarship. When you violate this principle, you cheat yourself of the confidence that comes from knowing you have mastered the targeted skills and knowledge. You also hurt all members of the learning community by falsely presenting yourself as having command of competencies with which you are credited, thus degrading the credibility of the college, the program, and your fellow learners who hold the same credential.

All members of the learning community share an interest in protecting the value, integrity, and credibility of the outcomes of this learning experience. We also have the responsibility to censor behaviors that interfere with this effort. The following behaviors will be subject to disciplinary action:

**Plagiarism** - presenting someone else's words, ideas, or data as your own work.

**Fabrication** - using invented information or the falsifying research or other findings.

Cheating - misleading others to believe you have mastered competencies or other learning outcomes that you have not mastered. Examples include but are not limited to:

1. Copying from another learner's work
2. Allowing another learner to copy from your work
3. Using resource materials or information to complete an assessment without

- permission from your instructor
4. Collaborating on an assessment (graded assignment or test) without permission from the instructor
  5. Taking a test for someone else or permitting someone else to take a test for you

**Academic Misconduct** - other academically dishonest acts such as tampering with grades, taking part in obtaining or distributing any part of an assessment, or selling or buying products such as papers, research, projects or other artifacts that document achievement of learning outcomes ***is NOT ACCEPTABLE***. UWSP subscribes to the definitions of academic dishonesty provided by the National Association of Student Personnel Administrators. Academic misconduct in the University of Wisconsin System is defined by UWS Chapter 14. The complete text of the chapter is available to you from the Dean of Students or you can visit [http://www.uwsp.edu/accreditation/docs/SA\\_PU\\_250.04.pdf](http://www.uwsp.edu/accreditation/docs/SA_PU_250.04.pdf) for more information.

Specific UNIVERSITY sanctions that typically apply to cheating during test-taking or to cheating on class assignments are listed below.

1. **Warning**. A warning will be issued if the incident cannot be verified beyond a reasonable doubt. A warning is a verbal or written notice to you that your conduct may be in violation of UWSP and/or SHCP's rules and regulations. Continuation of such conduct or actions may result in further disciplinary action.
2. **Grade Reduction**. Reduction by one full letter grade of your grade for the course (example B to C) will be implemented if you have previously committed no verifiable acts of cheating.
3. **Failure of course**. A failing grade for the course will be assigned if you have previously participated in at least one verifiable act of cheating.

**X. Inclusivity**

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that the students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

If you have experienced a bias incident (an act of conduct, speech, or expression to which a bias motive is evident as a contributing factor regardless of whether the act is criminal) at UWSP, you have the right to report it by contacting the Dean of Students office directly at [dos@uwsp.edu](mailto:dos@uwsp.edu).

**XI. Equal Access for Students with Disabilities**

UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities.

The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom.

Examinations or other procedures used for evaluating students' academic achievements may be adapted. *If modifications are required due to a disability, please inform the instructor and contact the [Disability and Assistive Technology Center](#) to complete an Accommodations Request form. Phone: 346-3365 or Room 609 Albertson Hall.*

### **Help Resources**

<b><u>Tutoring</u></b>	<b><u>Advising</u></b>	<b><u>Safety and General Support</u></b>	<b><u>Health</u></b>
Tutoring and Learning Center helps with Study Skills, Writing, Technology, Math, & Science. 018 Albertson Hall, ext. 3568	Academic and Career Advising Center, Albertson Hall, ext. 3226	Dean of Students Office, 212 Old Main, ext. 2611	Counseling Center, Delzell Hall, ext. 3553. Health Care, Delzell Hall, ext. 4646

### **UWSP Service Desk**

The Office of Information Technology (IT) provides a Service Desk to assist students with connecting to the Campus Network, virus and spyware removal, file recovery, equipment loan, and computer repair. You can contact the Service Desk via email at [techhelp@uwsp.edu](mailto:techhelp@uwsp.edu) or at (715) 346-4357 (HELP).

### **Care Team**

The University of Wisconsin-Stevens Point is committed to the safety and success of all students. The Office of the Dean of Students supports the campus community by reaching out and providing resources in areas where a student may be struggling or experiencing barriers to their success. Faculty and staff are asked to be proactive, supportive, and involved in facilitating the success of our students through early detection, reporting, and intervention. As your instructor, I may contact the Office of the Dean of Students if I sense you are in need of additional support which individually, I may not be able to provide. You may also share a concern if you or another member of our campus community needs support, is distressed, or exhibits concerning behavior that is interfering with the academic or personal success or the safety of others, by contacting the Dean of Students office or by calling university police (911).